

The Junction of Two Rivers: Art History and Pollution in Canada

Jasmine Sihra

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Abstract

The Junction of Two Rivers: Art History and Pollution in Canada

Jasmine Sihra, Ph.D.

Concordia University, 2026

This dissertation explores the possibility of bringing together disciplines as a confluence, or junction, analysing the site where disciplines meet in artistic and curatorial practices case studies the Canadian arts milieu. Drawing on Indigenous feminist ontologies of waterways, this text explores artistic and curatorial case studies to expose the relationship between various dimensions of pollution and colonialism. This speaks to two emerging trends in the scientific data collection, knowledge creation and transmission that inform high-level environmental and pollution policies, assessments and regulations. First, Black, Indigenous, and People of Colour's (BIPOC) experiences with pollution and climate change are often excluded in research or policies. Second, when BIPOC are considered, community knowledge, wisdom, and experiences have been subject to extraction, and decontextualized from their places of origin in journals, news articles or other forms of reporting. This dissertation argues that artistic and cultural practices are increasingly important within pollution research, precisely because artists and arts professionals are able to honour community experiences and foreground the intricate relationships and connections that create knowledge, instead of viewing knowledge as isolated sets of data. The case studies focus on artworks and exhibitions curated after 2012, including: a comparative analysis of works by Métis artist Zoe Todd and Tāltān artist Tsēmā Igharas, a chapter dedicated to the work of Black multimedia artist Christina Battle, and an analysis of the interdisciplinary group the Synthetic Collective's exhibition *Plastic Heart: Surface all the way through* (2021; 2023).

Keywords: Pollution, colonialism, art history, community, interdisciplinary, Canada, environment, climate change, artistic practice, sustainability, curating

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Tegan Moore

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Dedication

This dissertation is dedicated to my older sisters, Monique and Aneeka Sihra. How lucky am I to have entered this world with my best friends, who are always protecting me. I love you <3

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Chapter 1 THE CONFLUENCE OF ART HISTORY AND POLLUTION

Confluence: a coming or flowing together, meeting, or gathering at one point; the place of meeting of two streams; the stream or body formed by the junction of two or more streams : a combined flood¹

1. Merriam-Webster, "Confluence," accessed December 7, 2025, <https://www.merriam-webster.com/dictionary/confluence>.

~ water blessing ~

As I watched TV on a sleepy Saturday morning, Nani was finishing the last prayer, *ardaas*, that she did every morning as part of *japji sahib*. She recited the mantra that all Sikhs know so well: *Waheguru, Waheguru, Waheguru*. Head covered with her everyday *chuni*, Nani repeated this mantra, meditating on the happiness and health of her loved ones. Of mom, of masi, of mama, of nana, of my sisters, of my brother, of me. On occasion, Nani completed *ardaas* by sprinkling water from an old, green capped Sunny D plastic bottle on my head and face. Annoyed, I complained, to which Nani said, “it’s from Amritsar (Sri Harmandir Sahib),” forcing me to accept it. The cold water sprinkled from her fingertips, hitting my scalp, flying into my eyes and gently dripping down my face. Finally, she poured water into her cupped hand, holding it out for me to drink directly from her palm. She patted the top of head with gentle pressure and said “Waheguru.”

~ water experiment ~

Throughout his career, Japanese businessman and scientist Masaru Emoto was notorious for his experimentations with water. He spent much of his life researching the effects that sound, music, prayer and spoken word might have on the physical molecular structure of water. His controversial research results indicated that positive affirmations, like ones of love or kindness, created “aesthetically pleasing” molecular formations. When frozen, the water formed delicate, beautiful snowflake-like crystals. Negative thoughts and intentions, of hatred, or pain, created “disorganized and unpleasant” blobs that seem, quite frankly, chaotic. One of his most interesting experimentations included exposing polluted, toxin-filled water to Buddhist prayer. After prayer, the geometric structure seemed to be restored to that of clean, healthy water. Emoto’s water experiments were often called a “pseudoscience” because of the small sample sizes and tinkering with results. Notably, it has been mainly white scientists from the United States accusing Emoto of so-called quackery. (And of course, historically speaking, Americans have always interpreted Japanese politics, culture, and research with accuracy).

~ water walk ~

Grandmother Water Walker. Chief Water Commissioner. Anishinaabe-kwe. *Biidaasige-ba*.² Elder.

Josephine Mandamin spent much of her career and life speaking for the water, advocating for water rights. From 2003 to 2017, she walked around the Great Lakes to raise awareness about water pollution, especially near First Nations communities. These walks were known as the Mother Earth Water Walks, inspired by Mandamin’s activism, continuing even after Mandamin’s untimely death in 2019. First Nations and other Indigenous peoples across Canada have expressed that within their cultural understandings and cosmologies, water is life. It’s not just that water is part of survival; it’s that water is life itself. Mandamin once said that water has a personality. Other artists, scholars, and writers have said water is relation. Mandamin’s activism lives on in the water work of her relative, her grand-niece Autumn Peltier, who now serves as the Chief Water Commissioner of the Wikwemikong First Nation.

2. “the one who comes with the light.”

1.1 Introduction: Indigenous Feminisms and the Politics of Water

These examples of water come from three distinct areas of research, cultures, and forms of wisdom, and yet, they come together under a common theme: water. Inspired by the variety of ways that water can be understood and experienced, my dissertation explores the possibility of thinking through disciplines as bodies of water— as rivers, lakes, streams, ripples, tides, or waves— within the context of pollution and art. Art history has always been tied up in issues around the environment or the advent of geopolitical power that resulted in industrialization — and pollution— globally. As visual cultural theorist Nicholas Mirzoeff writes, western art traditions have often been complicit with destructive geopolitical powers. Providing the example of Claude Monet’s *Impression: Sun Rising* (1873), Mirzoeff writes that the painting “[...] at once reveals and aestheticizes anthropogenic environmental destruction.”³ Visual culture scholars Amanda White and Elysia French also conclude that “[...] industrial and technological activities are ignored, normalized, or even celebrated in art.”⁴ This dissertation investigates the intersection of art, science, social sciences, and other disciplines, inquiring about the confluence, or junction, of seemingly disparate fields of research to understand the topic of pollution from an art historical perspective. To shape my argument, I think *with* water to explore the possibility of bringing together disciplines as a confluence, analysing the site where disciplines meet in artistic and curatorial practices case studies the Canadian arts milieu. I consistently return to bodies of water as a guiding principle in my writings on case studies. Throughout my dissertation, I draw on Indigenous feminist ontologies of waterways to point to how artists and curators expose the

3. Nicholas Mirzoeff, "Visualizing the Anthropocene," in *Visualizing the Environment*, eds. Allison Carruth and Robert P. Marzec, *Public Culture* 26, no. 2 (73) (2014): 221, accessed January 22, 2026, <https://doi.org/10.1215/08992363-2392039>.

4. Elysia French, and Amanda White, "An Introduction to Ecologies in Practice," in *Ecologies in Practice: Environmentally Engaged Arts in Canada*, eds. Elysia French and Amanda White, (Waterloo, Canada: Wilfrid Laurier University Press, 2024), 11. <https://muse.jhu.edu/book/129263>.

relationship between various dimensions of pollution and colonialism. My goal in this dissertation is to foreground the inclusion of artistic practices and arts-based research within pollution research, policy, and regulations.

Most of the discourse and scholarship that views a relationship between pollution and colonialism has only been published in the last ten years, since 2015. My dissertation would contribute to this small, yet growing discourse, providing case studies of how settler colonialism and pollution are intimately tied together in ‘Canada.’⁵ Black environmental expert Ingrid Waldron argues that Indigenous and Black women are disproportionately affected by racial and gendered forms of environmental violence that comes from a history of colonialism, white supremacy and patriarchy in ‘Canada.’⁶ Many Black, Indigenous, and People of Colour (BIPOC) communities across Turtle Island (‘Canada’ and the ‘USA’) have experienced worsening physical and mental health, and overall declining well-being due to pollution in local water sources. As I write this dissertation, the Asubpechoseewagong Netum Anishinabek (‘Grassy Narrows First Nation’) are beginning a lawsuit against the Ontario government for ongoing health issues caused by mercury poisoning from the 1960s caused by Dryden Corporation’s dumping of waste into the nearby river.⁷ In 2022, Imperial Oil’s operations near the Athabasca, Muskeg, and Firebag rivers resulted in seepage of tailings, a sludge-like mixture resulting from the extraction of bitumen, into the wetlands near several rivers. Instead of alerting the

5. I use the term ‘Canada’ here in quotations as a nod to the fact that Indigenous communities across the country have various names for their homes which pre-date the formation of ‘Canada’ as a settler nation. For example, the Haudenosaunee Confederacy refer to ‘Canada’ and the United States as Turtle Island, whereas Inuit living in the North would call their homelands Inuit Nunangaat. Throughout this dissertation, I will use quotations for ‘Canada,’ colonial placenames of regions in ‘Canada,’ and other countries particularly in instances where there are various or unknown Indigenous placenames.

6. Ingrid Waldron, *There’s Something in The Water: Environmental Racism in Indigenous & Black Communities*, (Halifax: Fernwood Publishing, April 2018), 251.

7. Sarah Law, “Grassy Narrows First Nation taking Ontario to court over Mining Act, lack of consultation on land claims,” *CBC News*, July 12, 2024, <https://www.cbc.ca/news/canada/thunder-bay/grassy-narrows-first-nation-mining-act-legal-action-1.7260724>

Chipewyan First Nation who live downstream the Athabasca River, Imperial Oil hid the seepage for a year, likely causing severe health issues to the surrounding community and ecosystems.⁸ I have discussed in previous articles my own experience with air pollution as a Punjabi woman growing up in predominantly Black and South Asian neighborhoods in the Greater Toronto Area (GTA), Tsí tkarón:to (“Toronto”).⁹ I grew up in areas where factories emitted all kinds of toxins and pollutants in the air we breathed around us. To make space for the influx of Black and brown immigrants, the city would clear remaining forests and trees for more store plazas and homes.

My approach of using artistic and curatorial case studies speaks to two emerging trends in the scientific data collection, knowledge creation and transmission that inform these high-level policies, assessments and regulations. First, Black, Indigenous, and People of Colour’s (BIPOC) experiences with pollution and climate change are often excluded in research or policies. Second, when BIPOC are considered, community knowledge, wisdom, and experiences have been subject to extraction, and decontextualized from their places of origin in journals, news articles or other forms of reporting. Both trends indicate that BIPOC are not fully or accurately accounted for, despite being the most affected by pollution globally. As long as research on pollution remains exclusive of the intimate ways racialized communities are affected by pollution, high level policies, practices or assessments used by governments will never actually tend to diverse and varied experiences of pollution and exposure to industrial pollution. These policies will never be informed by, for example, relationships to land and community that are embedded in various Indigenous cosmologies across ‘Canada.’ These community knowledges

8. Brandi Morin, "Ricochet Media," Alberta First Nation Chief warns of “broken system” as Imperial Oil faces charges, last modified February 19, 2025, <https://ricochet.media/indigenous/alberta-first-nation-chief-warns-of-broken-system-as-imperial-oil-faces-charges/>.

9. Jasmine Sihra, “Breathing in Disaster: Christina Battle’s Forecast,” *Public* 35, no. 70 (October 2024): 37, accessed January 22, 2026, https://doi.org/10.1386/public_00203_1.

could be valuable in policy or assessment creation, but it should not simply be taken into those contexts as data or research without leadership and consultation from those communities, as this reproduces a kind of colonial extraction of knowledge and resources. I am inspired by esteemed art historian Dr. Jolene Rickard's (Tuscarora First Nation) lecture at Aabaakwaad 2025, an international gathering of Indigenous arts professionals, where she discussed that art has the potential to embody community wisdom, knowledge, and experiences.¹⁰ I argue that artistic and cultural practices are increasingly important within pollution research, precisely because artists and arts professionals are able to honour experiences and foreground the intricate relationships and connections that create knowledge, instead of viewing it as isolated sets of data.

While I cite and lean on some scholarship outside of art history, my research is still inherently art historical. One key characteristic of art historical research is mapping out, analyzing, and categorizing art within specific art movements. My research favours a perspective of art history that sees art as connecting past, present, and future. My approach to art history embraces a kind of non-linearity in art movements in how they begin or end, resisting what settler scholar Mark Rifkin calls settler time—a white, western framing of time that asserts linear temporal experiences and the “orderings, articulations and reckonings of time.”¹¹ Taking cues from Métis scientist Max Liboiron and geographer Josh Lepawsky, my research defamiliarizes the taken-for-granted narratives on pollution by considering how artistic and curatorial practices engage with interdisciplinary perspectives and thereby providing decolonial scholarship and art historical perspectives.¹² Ultimately, in this dissertation I argue that pollution

10. Jolene Rickard, “Closing Keynote,” (presentation, Aabaakwaad 2024, University of Toronto, Toronto, Ontario, Canada. December 7, 2024).

11. Mark Rifkin, “One: Indigenous Orientations,” in *Beyond Settler Time: Temporal Sovereignty and Indigenous Self-Determination*, (Durham: Duke University Press, 2017), 3.

12. Josh Lepawsky and Max Liboiron. *Discard Studies: Wasting, Systems, and Power*, (Boston: MIT Press, 2022), 11.

is such a multifaceted issue that it warrants collaborative efforts to determine best strategies and ways forward, using artistic and curatorial practices as examples of interdisciplinary work.

The case studies in this dissertation focus mostly on artworks and exhibitions curated after 2012, with a focus on works produced after 2018. Very little has been written about when and how artists and curators in Canada began to consider experiences and perspectives from marginalized communities as well as the link between pollution and settler-colonialism. However, I argue that the emergence of the Idle No More movement in 2012 served a catalyst for many artists to engage in some form of protest, creation, and activism against resource extraction on Indigenous territories. The Idle No More movement arose in 2012 to protest the Canadian legislative Bill C-45 that directly impacted the Indian Act, Navigable Waters Protection Act, and Environmental Assessment Act, and ultimately infringing upon Indigenous sovereignty and rights.¹³ One of the main results of C-45 was the ability for both public and private organizations to bypass detailed environmental assessments to build on or extract from land. Despite the bill being passed, Idle No More was pivotal in raising awareness of both the need to uphold Indigenous sovereignty and take care of the environment. The movement is known to have begun with four Indigenous and non-Indigenous women in Saskatchewan: Jessica Gordon, Sylvie McAdam, Nina Wilson, and Sheelah McLean.¹⁴ This movement is a significant Indigenous feminist moment because the co-founders' employed ideas that resonate with Indigenous feminist ideology. More specifically, they began a movement of collective action that protected land and waterways and uphold Indigenous sovereignties. Idle No More recognizes interlocking systems of power, such as patriarchy and capitalism, and organizes solidarity actions

¹³ Tabitha De Bruin, "Idle No More," The Canadian Encyclopedia, last modified February 4, 2019, <https://www.thecanadianencyclopedia.ca/en/article/idle-no-more>.

¹⁴ "Idle No More is founded by 4 women – Idle No More," Idle No More, <https://idlenomore.ca/idle-no-more-is-founded-by-4-women-idle-no-more/>.

across different cultural groups to confront the way those systems continue to disregard Indigenous rights through governmental policies and legislation like Bill C-45. Idle No More proliferated mainstream Canadian media and politics demonstrating the possibilities of collective action to achieve a common goal, and the movement garnered significant support from famous musicians and artists, such as the late Gord Downie and Feist.¹⁵

In the wake of Idle No More, artists, especially Indigenous artists, began to publicly and vocally support actions that exposed the Canadian state's ties to the oil and gas industry and threats to the environment. For example, Kwakwaka'wakw Hereditary chief Beau Dick, a celebrated artist and carver, supported Idle No More by performing a traditional Kwakwaka'wakw copper cutting ceremony at the Victoria, British Columbia legislature in February 2013.¹⁶ Dick's ceremony was meant to highlight the significance of protecting the waterways, the environment, and shame the Canadian government for not fulfilling any of the promises made to support Indigenous communities. Similarly, The Onaman Collective, comprised of Ojibwe artist Isaac Murdoch (Serpent River First Nation) and Michif artist Christi Belcourt,¹⁷ created protest banners that would be seen widely in Idle No More actions [Figure 1].

15. Mark Blackburn, "Idle No More has support of Gord Downie, Feist, Weakerthans, Steven Page and more," *APTN News*, January 9, 2013, <https://www.aptnnews.ca/national-news/idle-no-more-has-support-of-gord-downie-feist-weakerthans-stephen-page-and-more/>.

16. Warrior Publications, "Beau Dick Copper Cutting Ceremony in Victoria to "Shame" Government," February 11, 2013, <https://warriorpublications.wordpress.com/2013/02/11/beau-dick-copper-cutting-ceremony-in-victoria-to-shame-government/>.

17. The work that Belcourt does with Onaman Collective is different from her personal artwork, so I discuss it separately.



Figure 1: The Onaman Collective (Isaac Murdoch and Christi Belcourt). *Water is Life: Thunderbird Woman's Mom*. Poster from <http://onamancollective.com/murdoch-belcourt-banner-downloads/>.

1. 2 Relevant Literature

1.2.1 Indigenous Feminisms

My dissertation primarily works from an Indigenous feminist lens to understand how artists and curators develop interdisciplinary responses to pollution and colonialism. Throughout, I mostly rely on Lenape Indigenous Studies scholar Joanne Barker's notion of *confluence*. In "Confluence: Water as an Analytic of Indigenous Feminisms" (2020), Barker seeks to distinguish how one comes to know ideas or research within an Indigenous feminist from "empirical objectivity" that claims to know everything. She explains that the Indigenous feminist politics is contextualized by complicated systems, events, and ideas like extractive capitalism, science fiction, and teachings from Indigenous elders.¹⁸ To outline her point, Barker considers two examples of what she calls the "solidification" of Indigenous feminist politics: the

18. Joanne Barker, "Confluence: Water as an Analytic of Indigenous Feminisms." *American Indian Culture and Research Journal* 43, no. 3 (January 1, 2019): 2, accessed January 22, 2026, <https://doi.org/10.17953/aicrj.43.3.barker>.

#NoDAPL movement and the Flint Water crisis.¹⁹ She analyses these examples to outline the consequences of water pollution as well as to highlight how the pollution of water in seemingly different places brought the activists in those areas together. In the case of the #NoDAPL at Standing Rock in 2016, the proposed pipeline would affect the drinking water of several Indigenous tribes in the area. In the case of Flint, the city's drinking water was polluted and impacted the health of the inhabitants, who were mostly Black and racialized. Barker explains that Indigenous people held ceremonies to honor the water in Flint, even before the #NoDAPL movement, while also supporting the Flint activists in their calls for clean water.²⁰ Similarly, members from the Black Lives Matter movement (America) joined land defenders and water protectors at Standing Rock, and Barker notes that some of these individuals arrived from Flint.²¹ For Barker, these examples outline both the Indigenous feminist politics of caring for water and moments of relationality across groups to honor water and ensure the health and rights of those who rely on different waterways for life.

Barker suggests “confluence” premised on this analytic of water to think through the complexity and contradictions of this current environmental issue. For Barker, confluence is an ontology of knowledge that is anti-imperial, anti-colonial and exists as a form of exchange between human and other beings.²² Rooted in water, confluence asks how knowledge is formed, with whom it is formed, and what claims are made, allowing for generative interrogations of all knowledge.²³ Confluence does not try to reify boundaries between disciplines or different ways of knowing about objects, experiences, or contexts, “[instead], water teaches us to think about

19. Barker, 1.

20. Ibid., 13.

21. Ibid., 24

22. Ibid.

23. Ibid, 6.

knowledge in continuous movement, transition, and change.”²⁴ As Barker explains, empirical science would see water as H₂O, two parts hydrogen and one part oxygen, while Indigenous peoples’ knowledge of water considers it a relative and life— both concepts are true and co-exist.²⁵ It is well-known that science has a history of racist research that has fueled the enslavement of African and Black communities and experiments on Indigenous children in ‘Canada’s residential schools. Working from confluence reimagines epistemology and ontology and so that knowledge is understood from different narratives, including dominant ones and those pushed to the margins.

A key part of Indigenous feminisms is lessons from water about reciprocity, and responsibility to ensure the health of humans, fish, mammals, and plant life. In “Introduction: Indigenous Peoples and the Politics of Water” (2018), Baldy and Yazzie suggest radical relationality as a method for establishing relationships from a water-view instead of a worldview, where “we define [...] our place in the world based on how the water views the world, or even how the water views us.”²⁶ Drawing on Tonawanda Seneca scholar Mishuana Goeman, Baldy and Yazzie write that waterview offers a scale based on connection, thinking about how humans, non-human life, the land, and water are related, even moving beyond human-land relationality.²⁷ Taking water seriously as part of relationality, they write that water “[...] keeps ourselves open to the possibility of making new relatives [...]” or kinships.²⁸ They write that waterview offers a

24. Ibid.

25. Ibid., 4.

26. Cutch R. Baldy, and Melanie K. Yazzie, "Introduction: Indigenous peoples and the politics of water," *Decolonization: Indigeneity, Education and Society* 7, no. 1 (2018): 2, <https://jps.library.utoronto.ca/index.php/des/issue/view/2004>.

27. Ibid.

28. Zoe Todd, "Refracting the State Through Human-Fish Relations: Fishing, Indigenous Legal Orders and Colonialism in North/Western Canada," *DIES: Decolonization, Indigeneity, Education, and Society* 7, no. 1 (2018): 67, <https://doi.org/https://jps.library.utoronto.ca/index.php/des/article/view/30393>.

scale based on connection, thinking about how humans, non-human life, the land, and water are related, even moving beyond human-land relationality. Baldy and Yazzie’s analysis of water arises from the “water is life” movement that has become popular discourse within decolonization struggles in North America and the Pacific since 2012, where Indigenous liberation organizations have activated water as an “agent of decolonization.”

Speaking specifically about Mní Wičóni (‘Water is Life’ in Lakota) and Idle No More movements, Baldy and Yazzie highlight radical relationality as a critical process that can reinforce good relations while navigating the contradictions and complexity in those relationships that result from colonialism.²⁹ Mní Wičóni halted the construction of the Dakota Access Pipeline in 2016 through the main water source of many Indigenous groups in Dakota, particularly the Meskwaki Tribes.³⁰ The Mní Wičóni movement both advocated for Indigenous sovereignty and rights, pointing to the importance of relationships built with and through the waterways, and the need to protect water as a separate entity that gives life. Eventually, the pipeline was built in 2017 with further protests in 2020, but the action around the resistance was felt internationally, especially in ‘Canada.’³¹ The water protectors were able to consistently halt its construction at several points, as well as insist upon more thorough environmental assessments of the pipeline. In 2016, Mní Wičóni expanded to include camping on the territories

29. Ibid., 10.

30. Jennifer Weston, “Water is Life: The Rise of the Mní Wičóni Movement,” *Cultural Survival Quarterly Magazine*, 2017, 12, <https://www.culturalsurvival.org/publications/cultural-survival-quarterly/water-life-rise-mni-wiconimovement>.

31. Juliet Grable, "A New Hope for Shutting Down the Dakota Access Pipeline," *Sierra: The Magazine of the Sierra Club*, last modified November 14, 2023, <https://www.sierraclub.org/sierra/new-hope-shutting-down-dakota-access-pipeline>.

to block the construction, and communities and activists from across the United States and Canada joined the blockades in solidarity.³² This began the trending #NoDAPL on social media.

Theories and concepts around decolonization and decolonizing also come up throughout this dissertation, complementing my Indigenous feminist framework of confluence. My understanding of the definition of decolonization comes from Maori Indigenous studies scholar Linda Tuhiwai Smith and Unangax^ Indigenous studies scholar Eve Tuck and Ethnic studies scholar Asian American. In Smith's book *Decolonizing Methodologies: Research and Indigenous Peoples* (2nd edition, 2012), she has described decolonization as struggle and process. For Smith, decolonization involves, in no particular order, critically reflecting on oneself, alternative ways of thinking, moments when decolonial ideas are deployed, counter-hegemonic movements, and interrogating various structures.³³ The first half of the book, chapters one to three, outlines imperialist and colonial forms of research that have been harmful and exploitative to Indigenous peoples. Smith establishes that understanding the colonial past and present of academic research is necessary to enter a critical pedagogy of decolonizing.³⁴ The second half of the book explores decolonial methodologies and approaches, and highlights the importance of Indigenous research practices and methodologies that intervene in colonizing and harmful research, such as Kaupapa Maori Research that Maori scholars undertake in institutional settings.

I also rely on Unangax^ scholar Eve Tuck and Asian American scholar K. Wayne Yang's widely referenced journal article "Decolonization is not a metaphor" (2012), which warns against widespread use of the term "decolonization." Tuck and Yang define decolonization as the

32. Thomson Reuters, "N. Dakota officials back away from blockade plans for Standing Rock camp," *CBC News*, November 29, 2016, <https://www.cbc.ca/news/indigenous/north-dakota-block-supplies-standing-rock-1.3873010>.

33. Linda T Smith, *Decolonizing Methodologies: Research and Indigenous Peoples*, 2nd ed, (New York: Zed Books LTD., 2012), 201.

34. Smith, 205.

repatriation of Indigenous land and life, meaning the actual return of land back to Indigenous peoples and upholding Indigenous peoples' sovereignty. In this dissertation, my use of the term decolonization arises from Tuck and Yang's definition. The article also outlines the two operations of settler colonialism: external, referring to expropriation of Indigenous worlds to build colonizer's worlds, and internal, referring to biopolitical and geopolitical management of people like prisons or ghettos.³⁵ My use of the term settler colonialism throughout this dissertation refers to Tuck and Yang's definition which sees settler colonialism as insisting on settler sovereignty and futures at the expense of Indigenous people's lives.³⁶ The authors' primary focus in the article is describing how settler-moves-to-innocence, which work against decolonization.³⁷ They outline six settler-moves-to-innocence, but the following two are particularly relevant for my dissertation: 1) when Indigenous peoples are reduced to being at-risk, on the verge of extinction, or as an asterisk within important data, and 2) colonial equivocation, when settlers homogenize experiences of colonial oppression globally without regard for local differences and how some might benefit from settler colonialism elsewhere.³⁸

Within pollution and climate change research, Black, Indigenous, racialized, and other marginalized communities have been excluded from or inaccurately represented within climate change and pollution discourse despite being the most affected globally.³⁹ In many ways, these communities have become exceptions or outliers in research, or asterisks, or academic articles

35. Eve Tuck, and K. Wayne Yang, "Decolonization is not a metaphor," *Decolonization: Indigeneity, Education & Society* 1, no. 1 (2012): 4, accessed January 22, 2026, <https://jps.library.utoronto.ca/index.php/des/article/view/18630>.

36. *Ibid.*, 13.

37. *Ibid.*, 10.

38. *Ibid.*, 21-22.

39. Mei-Ling Patterson and Sara Edge, "Integration and Inclusion of Racialized Immigrants in Canada's Expanding Environmental Sector: Toward Economic and Environmental Justice," *Canadian Ethnic Studies* 57, no. 2 (2025): 26, accessed January 22, 2026, <https://doi.org/10.1353/ces.2025.a971480>.

present their experiences with climate change as yet another reason why these communities and their homes may cease to exist. Furthermore, I argue that Black, Indigenous and other racialized communities' exposure to industrial pollution is certainly linked to colonialism more broadly, but local experiences are actually different.⁴⁰ Many of the artists present different narratives and understandings of pollution from varied perspectives, demonstrating myriads of ways in which pollution can exacerbate experiences of colonial oppression or even racialization. My research resists the settler-moves-to-innocence which would homogenize or inaccurately represent experiences of pollution by actually learning from artists who seek to highlight narratives of diverse community narratives, experiences, wisdom, and politics. The narratives in my case studies work in decolonial or anticolonial ways, and using Indigenous feminisms, I discuss how they work towards decolonization. Here, it is important to distinguish between decolonial, anticolonial, and decolonization.⁴¹ As noted previously, decolonization is the actual repatriation and return of land back to Indigenous communities. Decolonial refers to the ideologies, perspectives, actions, and attitudes that seek to dismantle colonial systems, while anticolonial refers to those actions or attitudes that work in opposition to colonial systems.⁴² I use decolonial and anticolonial in specific moments throughout the dissertation to point out how artists and curators work decolonially or anticolonially, or both.

40. Cheryl Teelucksingh, "Environmental Racialization: Linking Racialization to the Environment in Canada," *Local Environment* 12, no. 6 (2007): 660, accessed January 22, 2026. <https://doi.org/10.1080/13549830701657455>.

41. Other distinctions are each term's regions of origin. Generally, South American and Caribbean scholars have written about decoloniality or decolonial theories, most notably Gloria Anzaldúa (Chicana), Walter D. Mignolo (Argentinian), Anibal Quijano (Peruvian), and Sylvia Winter (Jamaican). Anticoloniality can be considered a newer concept.

42. Francisco Godoy Vega, "Postcolonial/Decolonial/Anticolonial Theories in Translation," *E-Flux* (June 2025), <https://www.e-flux.com/journal/155/676984/postcolonial-decolonial-anticolonial-theories-in-translation>.

1.2.2 Interdisciplinary Frameworks and Confluence

Working from confluence, this dissertation understands interdisciplinary to mean that the process and methodology of research and creative practices arise from various disciplines. This collaboration between disciplines, including contradictions and complementary ideas, is what generates new knowledge about pollution. Like confluence suggests, interdisciplinary research and work fundamentally changes ontological and epistemological processes. However, the junction of disciplines is not new, and scholars across fields have attempted to define interdisciplinary collaborations especially within the context of environmental issues at least since the early 2000s. These gestures towards combining disciplines in projects is most obvious is the creation of the field called environmental humanities, best described by the late scholar Deborah Rose Bird et al., in the following quote:

On one level, the environmental humanities might be understood as a useful umbrella, bringing together many sub-fields that have emerged over the past few decades and facilitating new conversations between them. On another, perhaps more ambitious level, the environmental humanities also challenges these disciplinary fields of inquiry, functioning as a provocation to a more interdisciplinary set of interventions directed toward some of the most pressing issues of our time.⁴³

Environmental humanities specifically offer a method of interdisciplinary interventions that targets urgent issues of a particular moment, like pollution or environmental crisis. Similarly Scholars Zeynep Birsal, Lenia Marques and Ellen Loots also write that “[...] interdisciplinary and transdisciplinary practice focus on creating new and overarching approaches to knowledge creation [...]”⁴⁴ Nyakyao A. further writes that interdisciplinary collaborations expand

43. Deborah Bird Rose, Thom van Dooren, Matthew Chrulew, Stuart Cooke, Matthew Kearnes, and Emily O’Gorman, "Thinking Through the Environment, Unsettling the Humanities," *Environmental Humanities* 1, no. 1 (May 1, 2012): 5, accessed January 22, 2026, <https://doi.org/https://doi.org/10.1215/22011919-3609940>.

44. Zeynep Birsal, Lenia Marques, and Ellen Loots, "Daring to disentangle: towards a framework for art-science-technology collaborations," *Interdisciplinary Science Reviews* 48, no. 1 (November 16, 2022): 114, accessed January 22, 2024, <https://doi.org/https://doi.org/10.1080/03080188.2022.2134539>.

knowledge, developing new research methodologies, strategies for engaging the public.⁴⁵ This is true for The Synthetic Collective, a group of artists, environmental experts, scientists, and critics. The collective explains that their interdisciplinary collaboration consists of all members actively participating in the research and data collection of plastics and microplastics in the Great Lakes, as well as the dissemination of this research to the public.⁴⁶ In this case, knowledge about plastic pollution is shaped by perspectives and research from various disciplinary backgrounds, and expressed in scientific research articles, new artworks, and contemporary art exhibitions.

A comparable framework that seeks to bring together Indigenous cosmologies and Western knowledge systems is *Two-Eyed Seeing*, proposed by Mi'kmaw Elder Albert Marshall in the early 2000s. Drawing on Mi'kmaq knowledge, Marshall et al. explain that:

Two-Eyed Seeing is the gift of multiple perspective treasured by many aboriginal peoples and explains that it refers to learning to see from one eye with the strengths of Indigenous knowledges and ways of knowing, and from the other eye with the strengths of Western knowledges and ways of knowing, and to using both these eyes together, for the benefit of all.⁴⁷

At its inception, Western theory referred to Western science and theory, while Indigenous ways of knowledge referred to Traditional knowledge or Indigenous knowledge. It is also important to note that while Two-Eyed Seeing has been brought into theories and frameworks across the Arts and Humanities, it began with an intention of bringing together Sciences and Indigenous knowledge. The overall goal with implementing Two-Eyed Seeing within both research

45. Omutindo Nyakayo A., "The Intersection of Science and Art: Collaborative Approaches," *Newport International Journal of Engineering and Physical Sciences* 5, no. 1 (2025): 5 January accessed January 22, 2026, <https://doi.org/10.59298/NIJEP/2025/511600>.

46 Embracing an interdisciplinary approach to plastics pollution awareness and action, Sara L. Belontz, Patricia L. Corcoran, Heather Davis, Kathleen A. Hill, Kelly Jazvac, Kirsty Robertson, Kelly Wood, p. 856

47. Cheryl Bartlett, Murdena Marshall, and Albert Marshall, "Two-Eyed Seeing and other lessons learned within a co-learning journey of bringing together indigenous and mainstream knowledges and ways of knowing," *Journal of Environmental Studies and Sciences* 2 (August 16, 2012): 335, <https://doi.org/10.1007/s13412-012-0086-8>.

processes and methodologies, and educational institutions, is to weave Indigenous knowledge into Western concepts and theories. Marshall et al. explain that Two-Eyed Seeing is particularly relevant as an approach to environmental issues.⁴⁸ Indigenous knowledge is community-driven and offers spiritual dimensions, illuminating gaps within scientific research. Another significant characteristic of Two-Eyed Seeing is its context. Elder Albert Marshall and his wife, the late Elder Murdena Marshall, began working on Two-Eyed Seeing from their Mi'kmaq community of Eskasoni First Nation along with scientists from Cape Breton University.⁴⁹ Here, Marshall and Marshall aimed to bring Mi'kmaq ways of knowing together under Integrative Science programs at the university, calling it *Toqwa'tu'kl Kjjitaqnn*.⁵⁰ These programs were only officially formalized at Cape Breton University in July 2010, with the establishment of the Department of Indigenous Studies at the university. Marshall et al. note that Potawatomi botanist Robin Wall Kimmerer's research is an excellent example of Two-Eyed Seeing, integrating Indigenous wisdom of plants with botanical nomenclature and Scientific observations of ecology.

Marshall et al. key arguments demonstrated the possibilities of approaches to, for example, environmental issues, by integrating different knowledge systems. In many ways, Two-Eyed Seeing is a predecessor to newer frameworks and theories that argue for interdisciplinary and collaborative research methods, especially the Indigenous feminist theory of confluence. However, there are key differences between Two-eyed seeing and confluence which makes the latter more applicable for this dissertation that focuses on art historical methods and the relationship between pollution and colonialism. First, confluence more obviously and prominently suggests that reflexivity or reflecting on one's limitations and history as well as

48. Bartlett, Marshall, and Marshall, 332.

49. Ibid., 333.

50. This means "bringing our knowledges together" in Mi'kmaq.

one's local community, is key to developing an ontology based on waterview. As a feminist methodology, confluence insists that knowledge comes from scales of connections made between humans, non-humans, and the waterways. This is especially important in my dissertation where I try to make clear the connections between human and non-human beings across seemingly disparate regions in each of my case studies. Second, Indigenous feminist ontologies of waterways arise from Indigenous political and activist movements of Idle No More, #NoDAPL, and the Flint water crisis. These moments of solidarity, water protection, and land defence demonstrate the struggle towards decolonization. Two-eyed seeing does not overtly advocate for an interdisciplinary or collaborative research framework as a struggle rooted in decolonization. This dissertation recognizes that taking care of our environment is part of undermining relationships to land that are rooted in colonial violence, such as extraction, overuse, and overconsumption.

One key difference between confluence and Two-Eyed Seeing is that the latter originates in a desire to specifically integrate science and Indigenous knowledge. While my dissertation agrees that this is crucial in discussions around pollution, I employ art historical methods to outline the significance of artistic and curatorial processes and research within the context of pollution research more broadly. Confluence is most helpful in my analyses as it recognizes not only the importance of seeing from diverse BIPOC wisdoms and experiences but also highlighting the role that art and artists play in pollution action. Many water protectors, land defenders, and activists made banners, create beadwork, and other artforms in support of #NoDAPL and Idle No More. Barker also clearly recognizes the important contributions that art makes in demonstrating, exposing, and amplifying decolonial approaches to knowledge. Her article includes several images of artworks to outline her ideas. More significantly, Barker

mentions the work of artist Invincible in support of Flint community members, and she draws on Indian scholar Jaskiran Dhillon's arguments that Indigenous women's decolonial activism and scholarship ranges from environmentalist to the arts.⁵¹ Baldy and Yazzie similarly discuss the creation of an online singing game *Honour Song* based on Anishinaabe grandmothers' lessons around reconnecting with waters, created by Indigenous artists Elizabeth LaPensée (Métis/Anishinaabe), Sharon Day (Bois Forte Band of Ojibwe), and Lyz Jaakola (Fond du Lac Band of Lake Superior Ojibwe).⁵² Two-Eyed Seeing does not overtly locate knowledge production or scholarship in the arts in the same way as confluence. In this way, Barker's notion of confluence and Indigenous feminist ontologies of waterways are more applicable in art historical research and analysis of BIPOC-led and decolonial-focused arts projects. Confluence offers an approach to my dissertation that more holistically considers various sociopolitical arenas and connections across many knowledges and diverse community experiences.

1.2.3 Pollution Science and Environmental Research

In recent years, scientists and social scientists have written more extensively about the relationship between colonialism, Indigenous Environmental Justice, environmental racism, environmental issues, and climate change. In light of the countless ways that environmental changes are discussed, I have chosen to use *pollution* throughout this dissertation, taking significant cues from Métis scientist Max Liboiron's views of colonialism, and the subsequent issues around environmental racism as tied up in environmental pollution. I rely heavily on Liboiron's research on pollution and colonialism, as well as their book *Discard Studies: Wasting*,

51. Barker, 30.

52. Baldy and Yazzie, 14.

Systems, and Power (2022), written with Josh Lepawsky, which provides detailed definitions and explanations of the origins and nature of industrial waste and pollution.

Liboiron's book *Pollution is Colonialism* (2021) is well-known for moving away from generic terms like the climate crisis to identify the root cause of pollution as colonialism.⁵³ Liboiron defines pollution as “[...] the violence of colonial land relations rather than environmental damage, which is a symptom of violence [...]”⁵⁴ I follow Liboiron’s refusal to use terms like the *climate crisis* or *climate change* to specify that pollution *is* colonialism. This definition of pollution challenges the origins of pollution research in the scientific theory of *assimilative capacity*, or “[...] the manifestation of (scientifically!) demonstrable harm by pollutants when metabolism is overwhelmed [...]”⁵⁵ Assimilative capacity is a theory that marks the threshold-lines between pollution and nonpollution, similar to other theories like critical load, tolerance dose, carrying capacity, or permissible dose.⁵⁶ Assimilative capacity, though, first began and continues to uphold settler and colonial goals of using various bodies, such as water, as a sink for contaminants and waste disposal in general.⁵⁷ As Liboiron explains, scientists first came up with the measure of assimilative capacity to prove that pollution in specific bodies of water were not harmful, concocting a formula that would see toxins as only harmful at a certain point. Many of the experimentations were done on Indigenous lands and waters, around the same time that Indigenous communities were forcibly removed from their homes.⁵⁸ Those goals were grounded in settler-colonial expansion, through new homes and industrialization, that not only

53. Max Liboiron, *Pollution is Colonialism*, (Durham: Duke University Press, 2017), 6.

54. Liboiron, 7.

55. Ibid., 40.

56. Ibid., 57.

57. Ibid., 57.

58. Ibid., 6.

pushed Indigenous peoples off their land, but allowed for toxins and waste to be expelled into the waters that those communities relied on for survival.

Originally called “self-purification,” assimilative capacity was developed by two scientists named H.W. Streeter and Earle B. Phelps to measure the presence of organic waste in the ‘Ohio River’ in the 1950s. This river was home for many Indigenous communities, including the Lenape, Erie, Cherokee, Seneca, Eel, Wyndot, and several more.⁵⁹ Streeter and Phelps developed a model to measure “[...] when a river can no longer reintroduce enough oxygen to metabolize organic waste [...]”⁶⁰ Basically, the model would indicate at which point the threshold line between pollution and nonpollution was crossed. If the river is unable to metabolize the organic waste, then it would be considered a failure to self-purify. This model was taken up all around the world and has become the foundation of the permission-to-pollute system.⁶¹ A body, whether water, human, or otherwise, is only considered polluted if it does not self-purify. What this means is that pollution does not occur simply because a body has toxins in it, although there is presence of toxins. For example, the presence of plastics in a body (BPA) does not necessarily guarantee biomedical harm based on the assimilative capacity model. However, toxins in bodies, no matter the amount, can still be dangerous and life threatening. Low levels of arsenic in water, for instance, disrupts the reproductive capacity of fish, but the measurement of assimilative capacity still allows mining companies to store tailings in different bodies of water.⁶² The result is that the health effects of pollution are often seen outside of

59. National Park Service, “Ohio River Valley: A Place for Refugees,” last modified March 10, 2025, <https://www.nps.gov/articles/000/ohio-river-valley-a-place-for-refugees.htm>.

60. Liboiron, 51.

61. Ibid., 51.

62. Max Liboiron, Manuel Tironi, and Nerea Calvillo, “Toxic Politics: Acting in a Permanently Polluted World,” *Social Studies of Science* 48, no. 3 (2018): 333, 335, accessed January 22, 2026, <https://www.jstor.org/stable/48569078>.

chemical exposures and not typically considered in risk assessments of, say, industrial mining sites. The inaccurate or partial risk assessments makes it even more difficult to understand the true health and social impacts of pollution.

This dimension of pollution in relation to colonialism typically results in mainstream or white environmental justice movements across ‘Canada,’ neglecting to account for racialized communities’ experiences and perspectives on environmental issues. Consider, for example, the long-held condemnation of seal hunting in ‘Canada’ by PETA (People for the Ethical Treatment of Animals) and other animal rights activists who have often threatened and attacked Inuit for their traditional hunting and uses of seal.⁶³ Inuk filmmaker Alethea Arnaquq-Baril’s famous documentary *Angry Inuk* (2016) outlined the historical and cultural importance of the seal hunt, while debunking the stereotypes and inaccurate representation of seals across Inuit Nunaat. It has only been in recent years that environmental justice movements have taken care to acknowledge that their activism implicates Indigenous communities, and that it occurs on and around Indigenous homelands. Furthermore, those environmental justice movements have only recently recognized the importance of the leadership and involvement of racialized communities in the mobilization of their activism. I argue that this likely occurred as a result of Idle No More in ‘Canada’ and the Flint Michigan water crisis in ‘Michigan.’ During the Flint water crisis, Black Lives Matter (BLM) organized to raise awareness of the lack of clean water for the mostly Black residents, framing this issue as part of broader state violence against Black communities. Indigenous communities, particularly the Anishinaabe who are Indigenous to ‘Flint,’ supported BLM’s actions and held water ceremonies, as they have always done throughout the Great Lakes

63. Erin Yunes, “Arctic Cultural (Mis)Representation: Advocacy, Activism, and Artistic Expression on Social Media,” *Social Studies of Science* 27, no. 54 (December 2016): 102, accessed January 22, 2026, https://doi.org/10.1386/public.27.54.98_1.

region. In response to this long history of pollution and colonialism, Liboiron argues that methodologies dealing with pollution must be local, specific, and based in land relations, which forms a key part of their own anti-colonial science methodology.⁶⁴ Another key part of this is Liboiron's arguments of their development of an anti-colonial science that does not reproduce settler and colonial entitlement to land.⁶⁵

Liboiron and Josh Lewpawsky also wrote *Discard Studies* to argue that waste and wasting are part of wider systems of power—a way of thinking about systems that is similar to *Pollution is Colonialism*.⁶⁶ In doing so, they seek to debunk common myths and truisms about waste and wasting, particularly that humans are naturally and inherently wasteful. As the authors explain, there are two kinds of waste: municipal solid waste (MSW), and industrial solid waste (ISW). MSW includes household waste, as well as commercial, construction and demolition, and medical waste.⁶⁷ ISW comes from industries like mining, which produces the largest portion of industrial scale waste in 'Canada.'⁶⁸ The amount of ISW produced annually in terms of weight, volume, and toxicity far exceeds the amount of MSW.⁶⁹ In this dissertation, I use the terms pollution, industrial pollution and resource extraction, somewhat interchangeably. I use pollution because it is specific in pointing out that resource extraction and industrial operations result in industrial waste, which is what pollutes bodies, like waters and animals. Ultimately, what I am referring to by using the term pollution is ISW, not MSW. Liboiron and Lepawsky further argue that consumers are wasteful, and that consumerism leads to wasting, but that industry makes consumers a point of contact on the way to dumps. This is not to remove responsibility or

64. Liboiron, 40.

65. Ibid., 132.

66. Lepawsky and Liboiron, 3.

67. Ibid., 9.

68. Ibid., 10.

69. Ibid., 9.

accountability from people to practice better consumer habits but point to the need for industrial changes for the problem of waste and wasting to be addressed at the right scales and accurately.

My dissertation also draws upon scholarship on topics related to those themes from Liboiron, including writing by white scientist Donna Haraway, Potawatomi environmental justice scholar Kyle Whyte, and Otipemisiwak anthropologist Zoe Todd. Kyle Whyte’s article “Settler Colonialism, Ecology, and Environmental Justice” (2018) points out that settler-colonialism also disrupts relationships to the land reinforcing Liboiron’s arguments, too.⁷⁰ However, Whyte specifically argues that settler-colonialism violently impacts Indigenous collective continuance, or resilience and self-determination, whereas Liboiron focuses on cases of pollution to argue that it is part of on-going colonial land relations more broadly. Black environmental scholar Ingrid Waldron has written several texts, most notably *There’s Something in The Water: Environmental Racism in Indigenous & Black Communities* (2018) to tease out the effects of pollution and resource extraction on racialized groups in different parts of ‘Canada.’ Waldron’s text argues that the effects of pollution are exacerbated by racialization — that the marginalization of certain racial groups, particularly Indigenous and Black communities, is worsened when they are exposed to toxins and contaminants in the atmosphere, bodies of water and land.⁷¹ Specifically, Waldron notes that the exposure to pollution and the resulting health issues faced by Black and Indigenous communities is worsened by long-standing social and economic issues stemming from the history of colonialism in ‘Canada.’⁷² More importantly, the book uses several examples throughout Canadian history to argue that sites of resource extraction and subsequent pollution have often been located close to, if not directly beside the

70. Lepawsky and Liboiron, 125.

71. Waldron, 6.

72. Ibid.

homes of several neighborhoods of predominantly racialized populations, and Indigenous reserves. Two prominent examples include the pollution caused by the Northern Pulp Mill near the Pictou Landing First Nation in Boat Harbour during the 1960s that destroyed traditional hunting and fishing grounds, and the 1947 rezoning of the Black majority town of Africville, located in Mi'kma'ki ('Nova Scotia') into industrial land.⁷³

Haraway's text *Staying with the Trouble: Making Kin in the Chtulucene* (2016; hereafter referred to as "*Staying with the Trouble*") reimagines a way of thinking in times of urgency around the "Anthropocene."⁷⁴ Haraway proposes the Chtulucene as a way to consider kin-making and relationships that troubles thinking around the Anthropocene as a "human" problem, instead of an issue of broader systems. While Haraway's understanding of kin-making is useful in this dissertation, she often implies the relationship between colonialism and Anthropocenic thinking that she resists in her proposal of the Chtulucene, without fully exploring the direct correlation between colonial powers and environmental issues. Haraway also employs a case study approach that Otipemisiwak anthropologist Zoe Todd and settler scholar Am Kanngieser call the "environmental case study," where scholars typically render places like the Pacific Islands or the Tar Sands in Alberta as "case studies" of the anthropocene or climate change instead of seeing connections between places. The authors intervene into the scientific case study formula by proposing "environmental kin study" — employing a method of attunement, sensing, listening, and noticing to embrace entanglements or complexities, or deeply intimate relationships between things.⁷⁵ Kin studies resist anthropocenic thinking, draws connections

73. Ibid., 27.

74. Donna Haraway, *Staying with the Trouble: Making Kin in the Chtulucene*, (Durham: Duke University Press, 2016), 49.

75. Zoe Todd, "Fossil Fuels and Fossil Kin: An Environmental Kin Study of Weaponised Fossil Kin and Alberta's So-Called "Energy Resources Heritage"," *Antipode* 57, no. 5 (November 8, 2022): 1733, accessed January 22, 2026, <https://doi.org/https://doi.org/10.1111/anti.12897>.

between seemingly disparate facts, data, and experiences, and refuses to reinforce the colonial logics that rely on resource extraction and cause pollution. Todd extends this article into “Fossil Fuels and Fossil Kin: An Environmental Kin Study of Weaponized Fossil Kin and Alberta’s So-Called ‘Energy Resources Heritage” (2022) outlining two case studies to address the transformation of fossil kin into fossil fuel in ‘Alberta.’⁷⁶ In the first kin study, Todd describes her own family’s relationship to fossil fuels with the advent of resource extraction in the 1900s, but from the backdrop of her own family’s practice of kinship within Métis worldviews. In the second kin study, Todd looks at the Albertan government’s figuring of fossil fuels as the province’s heritage, suggesting that relationships with fossil fuels are rooted in extraction and the province has a “birthright” to extract these fuels that have been buried deep underneath ‘Alberta lands’ for millions of years.⁷⁷ The view of fossil fuels as ‘Albertan’ heritage denigrates Indigenous land rights and the relationships that Indigenous communities have had with fossil kin and other naturally occurring metals, minerals and substances on their lands. As Todd explains, Métis perspectives on kinship draws on Anishinaabe and Cree worldviews to understand relationships with others, non-human included, as deeply rooted in responsibilities for their care and lives, not violent forms of resource extraction. Taking together Haraway’s book and Kanngieser and Todd’s ideas of kinships and case studies, this dissertation’s case studies makes connections across places and time periods to better understand the relationship between pollution and colonialism in the Canadian arts sphere.

Within scholarship around pollution and colonialism, it is necessary to also understand recent discourses around the Anthropocene. The anthropocene as the period in which human

76. *Ibid.*, 1735.

77. Amer Kanngieser, and Zoe Todd, “From Environmental Case Study to Environmental Kin Study,” *History and Theory* 59, no. 3 (September 2020): 390, <https://doi.org/10.1111/hith.12166>.

activity has completely altered the Earth’s environment, ecosystems, and atmosphere. It was coined by biologist Eugene Storer and chemist Paul Cretzen in 2000, as a new era, a geological unit of time, that would follow the Holocene.⁷⁸ Put very simply, geological eras are indicated by analyzing layers of rock, or rock strata, from cores that are dug from deep in the Earth. When rock strata suggest obvious change and there’s enough reasonable evidence, members of the International Union of Geological Sciences (IUGS) vote to decide if the planet has entered a new geological era. Whether the era of the anthropocene officially began according to geological evidence mattered less in the Arts and Humanities, as the term itself offered a framework to understand or articulate the effects that human activity has had on the planet. The conceptual “looseness” of the term anthropocene is likely why the anthropocene has been so easily taken up and applied in various disciplines, even in the context of art exhibitions.⁷⁹ However, the term leaves lingering conversations, such as: Which human activity has altered the environment to the point of destruction? Who or what is most affected?⁸⁰

White settler scholar Heather Davis and Zoe Todd’s article “On the importance of a date, or, Decolonizing the anthropocene” (2017) suggests that decolonizing the anthropocene means seeing climate changes as inextricably linked to colonialism, imperialism, and capitalism by

78. The Holocene is technically the current geological epoch of the Earth which extends back approximately 11000 years: Encyclopaedia Britannica. “Holocene Epoch.” Accessed November 11, 2025. <https://www.britannica.com/science/Holocene-Epoch>.

79. Here are a few exhibitions that mention the anthropocene:

- *Animals Across Discipline, Time and Space* (2020) at the McMaster Museum of Art, Ontario.
- *A Broken Planet* (2024), at the Kitchener- Waterloo Art Gallery, Ontario.
- *Vanishing – Christine Fitzgerald*, 2024 at the Beaty Biodiversity Museum, British Columbia.
- *Edward Burtynsky: Anthropocene Emerging*, 2020 at Art-Windsor Essex, Ontario.
- *Ecologies: A Song for Our Planet* (2022) at the Musée de Beaux Arts, , Québec.
- *Our Time on Earth* (2023) at the Musée de la Civilisation, Québec.
- *Social Currents: As Geocreations* (2024) at the Foreman Art Gallery, Québec.

80. I wrote my master’s thesis on artists highlighting the need for decolonizing discourses related to the anthropocene. Overall, it was useful in understanding the reluctance or total neglect in considering pollution and resource extraction, which ultimately led me to leave the anthropocene behind, as a conceptual framework.

setting the beginning of the anthropocene at 1610, or the beginning of the colonial period.⁸¹ The authors also discuss that decolonizing the anthropocene requires scholars to think with Indigenous knowledge. Like Davis and Todd, Kyle Whyte's journal article "Indigenous Climate Change Studies: Indigenizing Futures, Decolonizing the Anthropocene" (2017) sees that colonialism and imperialism is linked to the anthropocene and highlights Indigenous knowledges, but he argues for a new area of research called Indigenous climate change studies (ICCS) that foregrounds Indigenous communities' experiences with colonialism and climate change, and their ability to respond using their own knowledges.⁸² For Whyte, the intimate—and post-apocalyptic—experience with changes in their lands and waters represents an ability to reckon with colonialism and, therefore, communities should be involved in responses to the anthropocene. Heather Davis and Zoe Todd, and Kyle Whyte reference each other's texts in their own articles, whether to critique or expand upon each other's ideas. While I recognize the valuable contributions Davis and Todd and Whyte have made in reframing the anthropocene from decolonial perspectives, I do not think with the Anthropocene in this dissertation. Davis and Todd's and Whyte's respective articles provide more evidence and examples of the relationship between environmental issues and colonialism, which forms part of the background of my research. However, the continued focus on the *anthropos* or human in the anthropocene makes it slightly incompatible with Indigenous feminist ontologies of waterways which advocate for relationality between humans and non-human beings. Furthermore, the anthropocene, as a term, is not specific enough in identifying the kind of human activity that has altered the environment,

81. Heather Davis and Zoe Todd, "On the Importance of a Date, Or, Decolonizing the Anthropocene," *ACME: An International Journal for Critical Geographies* 16, no. 3 (2017): 763, <https://acme-journal.org/index.php/acme/article/view/1539>.

82. Kyle Whyte, "Indigenous Climate Change Studies : Indigenizing Futures, Decolonizing the Anthropocene," *English Language Notes* 55, no. 1 (2017): 155, accessed January 22, 2026, <https://muse.jhu.edu/article/711473>.

namely pollution resulting from resource extraction and using bodies of water or land as sites for industrial waste disposal. My use of pollution is specific, yet broad enough to consider the various dimensions of pollution, like land, water, or air, in my case studies. As such, I have chosen to move away from the anthropocene as a framework of analysis.

1.2.4 Art of/in/and the Environment

Visual culture scholars Amanda White and Elysia French edited anthology, *Ecologies of Practice: Environmentally Engaged Arts in Canada* (2024), is the most comprehensive source to outline recent artistic and curatorial practices in ‘Canada’ with a focus on environmental issues. White and French bring together a group of artists, makers, and curators with a goal of sharing work that responds to the Earth from a decolonial and imperialist lens.⁸³ The authors note that despite the recent surge of interdisciplinary collaborations and research, the contributions of artists, artworkers, and curators are still overlooked while the Sciences are celebrated. The anthology responds to this gap by making space for arts professionals to reflect on their own practices and projects. These studies are what White and French call *environmentally-engaged art* which has the goal of being participatory or active while also mobilizing decolonial or anti-colonial lenses. Environmentally-engaged art also does not rely on visual strategies; in fact, in most cases, this form of art challenges the concepts, theories, and traditions that are typically associated with art or art history.⁸⁴ In proposing this conceptualization, White and French also distinguish between eco-art and environmental art by reflecting on the short history of scholarship and artistic practices that aim to capture the intersection of art and the environment. They write that eco-art responds to environmental issues by proposing solutions or reframing

83. White and French, 11.

84. Ibid., 13.

strategies, such as Chinese artist Mel Chin's *Revival Field* (1990), a landscape art project that utilized plants to draw toxins out of the ground. Environmental art, on the other hand, considers more-than-human entities to understand complex relationships in the environment.⁸⁵ Many of the examples in my dissertation can be considered eco-art, environmental art, or environmentally engaged art. However, I am more interested in teasing out how artists and curators make interdisciplinary considerations in the creation of their works. Nonetheless, I find White and French's book an integral addition to the field of environmental humanities and the intersection of art and the environment. I even reference White and French's book in Chapter 4 in my discussion of Christina Battle's practice.

A comparable text to White and French's anthology *Art in the Anthropocene: Encounters among Aesthetics, Politics, Environments, and Epistemologies* (2015) edited by Heather Davis and Etienne Turpin, which brings together several perspectives on art and climate change. Heather Davis is a cultural critic well-known for her research on plastics pollution and climate change scholarship. This text includes projects and essays that interrogate or reaffirm the notion of the anthropocene, including conversations on art and aesthetics. The text also includes conversations around colonialism and Indigenization, such as Kanien'kehá:ka scholar Laura Hall's chapter on Indigenous renewal, art, and craft in the context of her mother's garden. Another key text that analyzed artistic and environmental work is *Arts of Living on a Damaged Planet: Ghosts and Monsters of the Anthropocene* edited by Anna Lowenhaupt Tsing, Heather Anne Swanson, and Elaine Gan. This book does not consider aesthetics like Davis and Turpin's text, but it does showcase artistic responses to questions of what it means to live on a planet that

85. Ibid., 12.

is dying. For example, Ursula K. Leguin’s chapter “Deep in Admiration” uses poetry to understand relationships in worsening environments.

Oglala Lakota scholar Kali Simmons’ journal article “Reorientations, or, an Indigenous Feminist Reflection on the Anthropocene” (2019), is particularly relevant to my work. Simmons takes an Indigenous feminist approach to consider the anthropocene as a settler-colonial process, rooting her analysis in a refusal of the violent erasure of Indigenous peoples and their struggles. She offers an Indigenous feminist “reorientation” around the concepts of time, contamination, and kinship to consider settler-colonialism, taking Navajo artist Will Wilson’s *Auto-Immune Response series* (2005-) as a case in point.⁸⁶ I am particularly interested in Simmons’ conclusions around kinship and contamination that directly influences my own arguments around the relationship between pollution and colonialism. First, Simmons notes that Wilson’s depiction of the anthropocene shows it as contaminated only through the mask that Wilson wears in the image, but the actual environment does not look contaminated. What the work suggests is that adaptability to changing environmental conditions should be part of responses to the anthropocene, not achieving a pure and uncontaminated environmental space.⁸⁷ Second, Simmons argues for a reorientation around kinship instead of settler-colonial relations that prioritizes human-life. Simmons points out that the anthropocene has resulted in Indigenous Peoples loss of kinship to non-human life, and drawing on Wilson’s work, argues that a reorientation of kinship means that the response to the anthropocene must see survival as centered on the survival of non-human beings, too.⁸⁸ Simmon’s arguments about rethinking who

86. Kali Simmons, “Reorientations; or, An Indigenous Feminist Reflection on the Anthropocene,” *Journal of Cinema and Media Studies* 58, no. 2 (2019): 175, accessed January 22, 2026, <https://www.jstor.org/stable/26607216>.

87. *Ibid.*, 177.

88. *Ibid.*, 178.

we relate to and how we relate to them, as well as the need for adaptation echoes many of the work of many of the artists and curators in my dissertation. This article provides a clear example of an Indigenous feminist analysis of artwork in relation to environmental themes, providing a model for my own analysis of works in this dissertation. However, Simmons focuses more on the anthropocene, whereas I am specifically concerned with pollution.

My dissertation also draws on scholars who have written about the issue of pollution within the context of oil, gas and mining sponsorship in museums and galleries across ‘Canada.’⁸⁹ First, Scottish/Irish/Settler museum studies scholar Kirsty Robertson’s book *Tear Gas Epiphanies: Protest, Museums and Culture* (2019) is one of the first texts that traces moments of contestation and controversy related to context of oil and gas sponsorship in the Canadian arts and cultural sector to as early as the 1950s. In each chapter of this dissertation, I consistently refer back to Robertson’s book to provide context and backdrop for this long history of entanglement between industrialization and the ‘Canadian’ artworld. I cite different chapters from the book, but I mostly draw on “Chapter Six: When the Land Comes First: Oil, Museums, and (Missing) Protest.”⁹⁰ This chapter dives into oil sponsorship and complicates the relationship between museums and Indigenous communities, and land and water protectors whose actions resist the development of their land—often unceded territories— for extractive industries. I also rely on Robertson’s archival research of the artist boycott of the 1976 exhibition *Changing Visions: The Canadian Landscape* sounded the alarm at the mercury poisoning of the

89. In this dissertation, oil and gas sponsorship refers to sponsorship from corporations and companies with ties to the large-scale and destructive resource extraction, with the aims of developing various lands for oil, gas, or minerals.

90. Kirsty Robertson, *Tear Gas Epiphanies: Protest, Culture, Museums*, (Montréal, Canada: McGill-Queen's University Press, 2019), 191.

Asubpeechoosewagong Netum Anishinabek ('Grassy Narrows First Nation') at the hands of Dryden Chemical Company in the 1960s.⁹¹

Museum studies and white settler scholar Camille-Mary Sharp has also written extensively about the impact of the sponsorship from oil, gas and other extractive industries on Canadian museums, galleries and other artistic and cultural institutions. Sharp notes that Canadian artistic and cultural institutions and museums have a long history of entanglement with funding from corporations from the extractive resource sector.⁹² 'Alberta' museums and galleries frequently partner with corporations like Imperial Oil, Shell Canada, and Chevron, unsurprising considering 'Canada' has historically lauded 'Alberta' for its presence of tar sands and resource extraction potential. However, museums and galleries outside of the province have been notably funded and supported by oil and gas corporations. Imperial Oil, for instance, sponsored the *Energy: Power to Choose* (2011) exhibition at the Canadian Museum of Science and Technology in 'Ottawa.' The Royal Ontario Museum (ROM) in Tsí tkarón:to ('Toronto') has a longstanding relationship with Prospectors and Developers Association of Canada (PDAC), a leading mining lobby.⁹³ Sharpe explains that divestment from oil and gas sponsors is actually not the answer as divestment "[...]leaves unchanged the current system of private-public partnerships in museums, thereby doing little to challenge the ways that extractive capitalism informs and enables cultural

91. Ibid., 103-104.

92. For example, in the AGO's 2023-2024 annual report, the institution lists several donors and sponsors who have given the gallery up to 1 million dollars in funding. Many of these sponsors have investments, stocks, and publicly support various corporations that operate resource extraction activities or are part of extractive industries, like the Government of Canada, RBC, TD Bank Group, Power Corporation of Canada, Deloitte, and CIBC. This can be found on pages 14 to 19 of the 2023-2024 annual report: <https://ago.ca/about/year-in-review>.

93. The ROM recently held an exhibition as part of PDAC annual mining convention in 2025. "Exhibitor Directory." Prospector's and Developer's Association of Canada. Last modified , 2025. <https://pdac.ca/convention-2025/exhibits-2025/exhibitor-directory-2025/royal-ontario-museum-2025>.

institutions.”⁹⁴ More specifically, divestment of a single sponsor only supports a museum's public image and tends to cater to the goals and activism of a specific moment, rather than imagining the radical and critical frameworks on museums beyond divestment. Sharpe instead suggests that funding and governance models of museums and galleries must change in order for these institutions to actually address their colonial legacies.⁹⁵

Throughout my dissertation chapter, I consistently refer back to this contentious relationship between resource extraction, sponsorship, and museums. As Robertson has stated, museums and, by extension the Canadian arts sector, are multifaceted and contradictory; sometimes they resist external demands asking for radical change, and sometimes they embrace it.⁹⁶ By considering the entanglement of the arts, cultural, and museums sector in ‘Canada’ to oil and gas sponsorships, I do not intend to vilify or admonish these institutions or their staff for accepting funding from organizations. Drawing on Sharpe’s and Robertson’s respective research, my intention is to demonstrate that one of the contributing factors to the production of artistic and curatorial responses to pollution and colonialism *is* the Canadian arts sector’s relationship to extractive industries. It is an indisputable fact that has resulted in highly critical and wonderfully imaginative artwork and exhibitions that bring in historically marginalized communities into these spaces, *and* programs which maintain deeply problematic ideologies that have pushed Indigenous communities in ‘Canada’ off their homelands.⁹⁷

94. Camille-Mary Sharp, “Oil-sponsored exhibitions and Canada’s extractive politics of cultural production,” *Imaginations: Journal of Cross-Cultural Image Studies* 13 no. 1(July, 1 2022), 29, accessed January 22, 2026, <https://doi.org/10.17742/IMAGE.PM.13.1.2>.

95. *Ibid.*, 30.

96. Robertson, xvi.

97 The inaugural exhibition, *INUA*, (2021-2023) at the Qaumajuq-Winnipeg Art Gallery (WAG), curated by my PhD advisor Heather Igloliorte, as well as Asinnajaq, Kablusiak, and Krista Ulujuk- Zawadski, was undoubtedly a revolutionary show that fundamentally changed the curatorial possibilities for Inuit art (not in the least because it was organized and written about from an entirely Inuit group of artists, curators, and students). On the other hand, I continue to be disillusioned by the Art Gallery of Ontario’s Tom Thomson gallery space showcasing art by the Group of Seven as an expression of Canadian heritage and nationalism, which is on

1.3 Theories and Methodology

Throughout this dissertation, I employ Lenape scholar Joanne Barker's Indigenous feminist theory of confluence based on the Earth's waterways to highlight the junction between pollution and art. Aligned with Indigenous feminisms, I use analogies of water to map out an emerging movement of artistic and curatorial practices, from 2012 onward, that bring together interdisciplinary collaboration and critique of settler colonialism within the context of pollution. I also take cues from Baldy and Yazzie's notion of radical relationality, where relationships are built with and through the water, is part of how I understand relationality between humans, water, and other beings. I use confluence to map out knowledge creation in my case studies, and radical relationality to think through the relationships made by artists and curators. I also draw from decolonizing methodologies that see decolonization as repatriation of land and life as explained by Tuck and Yang. I argue that Indigenous feminisms build on this argument to foreground a decolonial praxis that is rooted in the well-being of all through relationships and sees decolonization as a process and struggle that we aim *towards*. Decolonization as a struggle is echoed by Tuhiwai Smith, as part of a decolonizing methodology. What makes Indigenous feminisms relevant as a way to disrupt colonial discourses and underpinnings of pollution research is that it offers a way to work anti-colonially and seek connections across scale through an ontology of water.

My methodological employment of confluence understands that pollution is colonialism, after Liboiron, and asks, how do artists and curators work to confront pollution? I employ

permanent view in one of the AGO's most prominent and public-facing galleries in the institution. Based on the 2024/2025 annual reports of the WAG and AGO, both institutions have accepted funding from corporations with ties to oil and gas sponsorship.

Indigenous feminisms in a comparative analysis of two artists' practices in chapter three; an analysis of community connections and responses within one artist's series of works in chapter four; and an examination of projects where curatorial practice and scientific process meet in chapter five. Each chapter of my dissertation will explain how the case studies adopt work in interdisciplinary, but I do not argue that these *decolonize* in any way. Rather, I articulate the broad connections made by each artist, such as relationships to each other, minerals, their own familial connections or otherwise, aquatic creatures, and materials like plastic. These relationships are messy, sometimes convoluted, nuanced, and without a clearly defined goal—in line with Indigenous feminisms which sees decolonization as an on-going process and struggle.

1.4 Outline of Chapters: Fluid Case Studies

This dissertation contains six chapters: one introductory chapter, one context chapter that provides historical context of the intersection between pollution and art history in 'Canada,' three chapters that outline my case studies, and a final chapter that summarizes my argument and its significance for future interdisciplinary work. The first chapter documents what I see as "waves" of moments in 'Canadian' art history where pollution, industrialization and resource extraction is depicted in artistic practices before 2012. The goal of this is to track moments, artists, and exhibitions that oriented the 'Canadian' art world to environmental themes. First, I sketch out an early period of 1920 to 1990 where artists like the Group of Seven and their contemporaries depicted nationalistic representations of the land and extractivist industries, like mining. Afterwards, I move onto the period of 1980 to 2012 to discuss Indigenous artists that provided anti-colonial critiques of land exploitation and extractive industries, like oil and gas, and mining, in the decades directly preceding the period that I study in this dissertation. In this

period, I suggest that there is a pattern of Indigenous artists, such as Rebecca Belmore and Brian Jungen, who resist the colonial underpinnings of extractive industries because those actions occur on Indigenous land and harm lives. Importantly, these examples still did not explicitly focus on pollution, but land rights and sovereignty. The chapter ends in the period of 2012 to 2016, where I discuss the growing body of artwork and exhibitions after 2012 that began to clearly explore the relationship between pollution and colonialism through interdisciplinary research, such as the exhibition *The Anthropocene* (2019) and Kwakwaka'wakw Hereditary chief Beau Dick's copper cutting and shaming ceremony in front of the Canadian Museum of History (CMH) in 2014. This period was influenced by founding of Idle No More in 2012, the 2016 launching of the Truth and Reconciliation Commission (TRC), the 2015 United Nations Climate Change Conference of Parties (COP21), and the 2019 Unist'ot'en and Wet'suwet'en blockades that were largely covered by Canadian media outlets. I argue that these moments truly forced arts and cultural institutions to more fully understand the impact of pollution on the environment. This chapter sets up the following body chapters that explores emerging work since 2012 where artists and curators express a relationship between pollution and settler colonialism through interdisciplinary research.

In Chapter 3: Oil, Gas, and Water Tides, I compare and contrast the works of Otipemisiwak ('Red River Métis'), anthropologist and artist Zoe Todd and T̓sēmā Igharas (Tāltān Nation) within the context of oil, gas, and extraction in the 'Canadian Prairies.' Drawing on her experiences with fish from since childhood, Métis cosmologies and anthropology research, Todd writes expressed and depicts her kinship to fish and other aquatic animals whose existence is continually threatened by extractive industries. In her drawings and scholarly work, Todd asserts the importance of relationships to show how human lives rely on their health and

survival, encouraging us to realize different ways of relating beyond colonial violence and extraction. Many of Igharas's works explore beings that are mined from her home territory, unceded lands of the Tāltān First Nation in 'Northwestern British Columbia,' and 'Alberta,' specifically interrogating the Athabasca oil sands that are part of the Western Canadian Sedimentary Basin. I touch on a few of Igharas's works to demonstrate development in her practice, but I focus on her online exhibition *Black Gold* (2019-2022). *Black Gold* is presented as strata, layers of rock that are drilled through by corporations seeking to extract fossil beings from deep within the earth. Inspired by geography and environmental sciences. Igharas uses the analogy of strata to show layered relationships to places, people, dirt, and other entities connected to fossil beings. This chapter will explore oil pollution in waters caused by extraction, the burning of fossil fuels resulting in air pollution, and the movement of crude oil from the Canadian West to the East. My comparative analysis will highlight key statistics, facts, and anticolonial perspectives on the history of oil extraction in this region. This chapter is framed by the water analogy of "tides," thinking through oil and gas pollution as fluctuating, changing, and increasing in volume. I begin with an excerpt from an interview with artist Emma Hassencahl-Perley. Hassencahl-Perley is Wolastoqiyik, which means "people of the beautiful river," and our conversations about relationships and water directly inform my Indigenous feminist analysis.

Chapter 4: Streams of Community Response to Pollution uses the water metaphor of a "stream," of something that happens in large numbers, that flows naturally between people, and from the Earth. It begins with an excerpt from an interview with white settler scholar and artist Michelle Wilson, who I met when I was completing my undergraduate degree. Wilson often works in solidarity with Indigenous artists from various regions of 'Canada' to explore the ways settler-colonialism has changed our relationships to land and different species, specifically bison.

Wilson has taught me about what it means to stand within the struggle for decolonization, earlier on in my career. Around the same time that I met Michelle, I met my friend and artist Christina Battle at Western, whose multidisciplinary *Forecast* series (2020) and *seeds are meant to disperse* series (2015—) confronting air pollution through community engagement across ‘Canada.’ Battle is likely one of the only artists in ‘Canada’ who works in such explicitly interdisciplinary ways, while critiquing environmental racism and the relationship between settler-colonialism and pollution. Battle’s *Forecast* series is one of her ongoing projects that is a product of her research on disaster. It consists of both writing and artistic projects, including *the air we breathe* (2023), and *Learning the Signals/Change is Coming* (2021—). *Forecast* (2020—) explores climate disaster through collaboration, using prompts and observations to encourage participants to sense and anticipate the drastically changing weather around them. Battle’s works highlight the impacts of changing weather and the unequal distribution of air pollutants, activating *Learning the Signals/Change is Coming* with communities in Tsí tkarón:to, Ktaqmkuk (‘Newfoundland’) and *the air we breathe* (2023) in Amiskwaciy-wâskahikan (‘Edmonton, Alberta’), Treaty 1 Territory (‘Winnipeg, Manitoba’), and Mohkínstsis (‘Calgary, Alberta’). Battle’s series *seeds are meant to disperse* is an on-going project where Battle grows seeds that thrive in specific areas in Canada depending on the landscape and climate and mails them to individuals through an exchange. One of the goals of this series is to encourage local gardens to flourish as a way to imagine better worlds that resist colonial ways of relating to others. Looking at Battle’s work from an Indigenous feminist lens will reveal the significance of interdisciplinary arts practices within the context of community wisdom. Different from the previous chapter, I will analyze Battle’s works as an overview of her practice to identify key artistic strategies she uses to think through pollution, rather than perform a comparative analysis of each work.

The fifth chapter demonstrates the curatorial possibility of arts practices and interdisciplinary research, taking the Synthetic Collective's (SC) exhibitions *Plastic Heart: surface all the way through* (Tsi tkarón:to, 2021), and *Le synthétique au coeur de l'humain* (Paris, France, 2023) as cases in point. *Chapter 4 An Estuary: Curating Pollution* is introduced by the analogy of an estuary, where the tide meets the river, or where research and practices from various disciplines meet each other in an exhibition. It is framed by an excerpt from my interview with SC member Kirsty Robertson, whose mentorship encouraged me to continue inquiring about the possibility of interdisciplinary work as a solution to pollution and environmental issues. The sustainably curated exhibition represents the collective's interdisciplinary research and work around microplastics and plastics pollution across the Great Lakes regions [...] In examining these two exhibitions, I show how museums, galleries, curators and other artworkers can engage with or frame artwork around pollution. Furthermore, I outline how curators can work anti-colonially to resist high waste production and high energy consumption that is typical of colonial modes of viewing museum and gallery spaces. The Synthetic Collective often critiques settler-colonialism and they curate artworks that highlight communities who have been historically affected by pollution. I also argue that the collective work as co-conspirators to First Nations communities who live along the Great Lakes, as well as all who source water from those lakes, by publicly exhibiting their research on micro-plastics and plastics pollution.

My final chapter, "Chapter 5 Ripples/Conclusion" concludes my arguments and summarizes each chapter. I conclude with recent exhibitions and initiatives that were the direct result of the Synthetic Collective's exhibition and even more recent shifts towards environmental initiatives in the Canadian arts milieu. The first is my own curatorial work and position as the

Curator of Sustainability and Engagement at Concordia University's FOFA Gallery from 2023 to 2024. The second is the student-led curation of the *meromictic* (2024). Held at the ArtLab Gallery Western University in London, Ontario, *meromictic* was an exhibition that responded to the 2023 recent selection of Crawford Lake by the international Commission on stratigraphy as the "Golden Spike" that marks the start of a new proposed geological epoch. This chapter will suggest that SC's work has fundamentally changed gallery and museum modes of viewing and exhibiting across 'Canada.' Afterwards, I look north to the Circumpolar Arctic, one of the regions in the world that is most affected by environmental changes and pollution. In the final section, I discuss one of Inuvialuk artist Maureen Gruben's most recent works *Anniivik* (2022). *Anniivik* is a photographic series that depicts a landfill from Tuktoyaktuk, with text overlaid on the images. Sometimes the text, presented as a kind of poem, is translated in English, or left in Inuvialuktun, but in all cases, they are sourced from Inuvialuit elders' stories about resourcefulness. By contrasting this text with images, Gruben offers a critique on high waste production that is typical of contemporary life. I purposely end with Gruben's work to explore the complexity of the impacts of pollution in places like the Arctic, and why questions around pollution and environmental issues in the North are necessarily different from the questions that I pose in this dissertation. Finally, I perform three curatorial dreaming exercises to suggest the creative possibilities for interdisciplinary work rooted in decolonial methodology for addressing pollution. This chapter is framed by a water analogy of "ripples," considering the ripple effects of recent and current interdisciplinary arts projects and what it means for communities who experience heightened effects of climate change globally.

1.5 Reflexivity: Anchoring like a Boat

As Barker notes, confluence means understanding that knowledge is partial, implicated, and contradictory. In other words, one can never know everything, and knowledge is usually implicated in specific subjectivities or places or systems that contradict one another. Barker draws on Indian scholar Jaskiran Dhillon's insightful paper on allyship with Indigenous women, "Notes on Becoming a Comrade: Indigenous Women, Leadership, and Movement(s) for Decolonization" (2019). In this paper, Dhillon recognizes how Indigenous feminists and scholars have guided her own research and scholarship, which has in turn led her to step into a role as a comrade in the struggle towards decolonization. She astutely notes that her camaraderie is based on the recognition that Indigenous women are "[...] are expanding the reach of anti-colonial organizing—they are [...] forging new decolonial pathways into the future through their intellectual contributions, revolutionary visioning, and grounded leadership."⁹⁸ Dhillon puts forward a profound argument rooted in reflexivity and relationality from an Indigenous feminist framework, and it is one that I follow in this dissertation. I position myself as an ally, comrade, and working in solidarity with BIPOC scholars, artists, and curators, as well those projects that highlight environmental racism.

I seek to anchor myself in writing about case studies, just like a boat becomes anchored to the ground under water. The metaphor of being anchored means being rooted somewhere, grounded in a specific moment—an expression of time and place. My commitment to researching pollution, climate change and the Arts arise from very specific moments in my life, and, therefore, my own situatedness is a significant contextualization for this dissertation. I was

98. Jaskiran Dhillon, "Notes on Becoming a Comrade: Indigenous Women, Leadership, and Movement(s) for Decolonization," *American Indian Culture and Research Journal* 43, no. 3 (2019): 45, <https://doi.org/10.17953/aicrj.43.3.dhillon>.

raised in a very liberal and spiritual diasporic Punjabi Sikh family in Tsí tkarón:to and I consider my nani as one of my first teachers. My nani's lessons on love, compassion, and acceptance, often delivered through a wide smile and loud, joyous laughter informed my desire to imagine futures rooted in good relations between people. Punjabi Sikh values are part of how I have approached an anti-colonial art history throughout my academic career. It is also why I gravitated towards certain mentors, professors, and artists who expressed other ways of relating to others. Many of these people directly and indirectly showed me the possibilities and value of working from an art historical perspective to think through pollution. Therefore, many of the case studies in this dissertation are people who I have interacted with before and learnt from. All of the artists and arts professionals mentioned in this dissertation have led me to one another in different ways, and it has allowed me to capture a snapshot of this emerging movement of arts professionals working at the intersection of science and art across 'Canada.'

Following Indigenous feminist methodology, I consider my own relationships with artists and curators. My approach notices and embraces complex relationships and comparisons across studies that are seemingly different. I interview or rely on interviews with many of the individuals studied to resist the idea that case studies are objects to be studied, but people who I might be able to learn from. Each chapter begins with an excerpt from an interview between myself and an artist who expanded my knowledge of a topic, with the aim of the excerpt thematically setting up a chapter. I also archival documents, files, records, and artworks, as well as objects in collections, mostly in my first chapter to discuss past work that has touched upon the pollution and the environment in 'Canada.' Some of these objects are on view at museums and galleries in permanent or temporary exhibitions. In these cases, I visit museums and galleries in-person that are close to me for research purposes. These museums are mostly located in

Ontario (ON) and Quebec (QC) and include: The McMichael Collection of Art (Kleinberg, ON), the Art Gallery of Ontario (Tsi tkarón:to), the Royal Ontario Museum (Tsi tkarón:to), and Musée de beaux-arts de Montréal (Tio:tia'ke/Mooniyang/Montréal). In other cases, I research online collection catalogues and archives in museums and galleries across Canada. I use keywords to find relevant artworks, including pollution, oil, gas, mines/mining, land, water, climate/change, environment, nature, and animals. I also use archived ephemera, such as brochures, pamphlets, and catalogues from exhibitions, but I rely on interviews with individuals to provide me with more information, especially because this dissertation covers a more recent period of contemporary art.

Chapter 2 WAVES OF POLLUTION IN CANADIAN ART HISTORY

Definition of wave(s): a movement sweeping large numbers in a common direction.⁹⁹

99. Merriam-Webster, "Wave," accessed November 11, 2025. <https://www.merriam-webster.com/dictionary/wave>.

This chapter outlines what I see as the first three waves of responses to pollution and the Canadian artworld from 1920 to 2012. The goal of this chapter is to provide historical context for more recent interdisciplinary negotiations. From 1920 to 1980, the Canadian art history canon concerned itself mostly with nationalist representations of the country. Many artists, such as the Group of Seven (G7) (c.1920 to 1935), derived a sense of nationhood from the pristine, clean environment, whether that be national parks or Arctic landscapes. This became clearer during the Second Industrial Revolution (c. 1870 to 1920) and rise of the mining industry in ‘Canada’ (c.1880 to 1920). Artists who were concerned about ecological preservation bloomed in the 1960s and 1970s, like Joyce Wieland. However, it was the end of the 1980s towards the early 2000s, with artists like Rebecca Belmore, when artistic practices began to emerge that demonstrated the link between settler-colonialism and pollution. Indigenous artists illustrated that the forced removal of Indigenous Peoples from their homelands and the continued repression of their health, rights, and sovereignty is inherently tied to resource extraction. These artists took advantage of gallery and museum spaces to demonstrate how the settler state benefits from resource extraction at the expense of Indigenous lives, land, and ways of being. Despite the inclusion of works by Indigenous artists in settler state institutions, they were often presented selectively to uphold broader settler agendas. After the surge of the Idle No More in 2012, and other key moments like the publication of the 2016 Truth and Reconciliation Commission (TRC) (“Conference of Parties, 2015”) at the United Nations Framework Convention on Climate Change (UNFCCC), more museums and galleries began considering climate change and environmental issues in their programming, with little acknowledgement of ties to extractive industries and colonialism. It was in fact the actions of artists and curators working *outside* these institutions who foregrounded the relationship between pollution and colonialism, showcasing

that the Canadian artworld is inextricably tied to the ongoing theft of Indigenous people's land for resource extraction. By mapping out these time periods, my research reveals that pollution and art have always been entangled in Canadian art history. Indigenous feminisms and confluence inform my art historical lens and analysis of key works and moments in this chapter.

2.1. Wave 1: 1900 to 1980

2.1.2. Mining the Nation (1900 to 1950)

In the early 1900s until around the 1940s, famous Canadian artists the Group of Seven (G7), Emily Carr, and their contemporaries, sought to capture the Canadian environmental landscape. The G7's artistic output has notably been critiqued for contributing to a national, colonial Canadian identity, figuring Canadian landscapes across the country as empty, even though Indigenous peoples lived in the depicted areas.¹⁰⁰ The works that have been most collected by museums and galleries across Canada are depictions of Algonquin Park and other lakes across Northern Ontario.¹⁰¹ These paintings often depict Canada as a land of beautiful, natural landscapes that would become home to settler Canadians, supporting and promoting settler futurity. Water and land were usually conflated as natural elements that could be captured and conquered by humans. Ultimately, water became part of the Canadian imagination.¹⁰² From an Indigenous feminist perspective, land and water are separate entities who teach different lessons. As Mishuana Goeman writes, Indigenous feminist praxis offers a scale based on

100. Their works are in major collections across Canada, including Tom Thomson Collection at the Art Gallery of Ontario (AGO) in Tsi tkarón:to which houses approximately 300 works by the Group of Seven and Tom Thomson, and the Group of Seven and Associates Permanent Collection at the McMichael Canadian Art Collection (Kleinberg, Ontario)

101. John O'Brian, *Beyond Wilderness : The Group of Seven, Canadian Identity, and Contemporary Art*, (Montréal: McGill-Queen's University Press, 2014), 14.

102. Catharine Mastin, *Cobalt: A Mining Town and The Canadian Imagination*, ed. Sarah Milroy, (McMichael Canadian Art Collection, 2024), 199.

connection as it collapses “the settler scale that separates humans, lands, animals, and so on.”¹⁰³

This forms my analysis of the G7 and their contemporaries during this period, where I bring together extraction, pollution, land (in the form of landscape paintings), and waterways.

What most art historians disregard about the G7 and their female contemporaries are their paintings that feature mines and industrial operations produced between 1940 and 1960, presenting an “outlier” to the trends of early Canadian landscape painting. These works can be seen as a visual record of industrialization and extraction in the early to mid 1900s. These paintings were not collected with the same intensity and fascination as their traditional landscape paintings, likely because collectors were not as interested in paintings that depicted dark, grey clouds and smoke-filled towns dotted with factories as they were with paintings of lush, green land and clear waterways. Despite being painted in the same landscape tradition that draws from picturesque and tonalism, these paintings were the first of their kind, showcasing how the introduction of industrialization in ‘Canada’ was synonymous with the establishment of the settler nation — that is, in the vein of Liboiron, how pollution *is* colonialism.¹⁰⁴ Tailings ponds and mines were likely a common subject for artists who were part of the G7 or worked adjacent to the group, because in their lifetime, they saw the rise (and eventual fall) of colonial wealth and prosperity resulting from industrialization.¹⁰⁵

I turn my attention to examples of paintings from the recent exhibition *Cobalt: A Mining Town and the Canadian Imagination* (2024) held at the McMichael Canadian Art Collection in

103. Mishuana R. Goeman, “Ongoing Storms and Struggles: Gendered Violence and Resource Exploitation,” in *Critically Sovereign: Indigenous Gender, Sexuality, and Feminist Studies*, ed. Joanne Barker, (Durham: Duke University Press, 2017), 101, <https://doi.org/10.1215/9780822373162>.

104. Mastin, 19.

105. Manufacturing companies opened in cities in the 19th century, but Canada was most fiercely hit by the Second Industrial Revolution in the 20th century.

Kleinburg, Ontario.¹⁰⁶ This exhibition explores paintings of the former mining town in Cobalt, Ontario during the 1930s that was depleted of silver for profits by various entrepreneurs — a microcosm of the large-scale resource extraction operations that began across the country around this time. The exhibition also considers the aesthetic approaches of the painters *and* critically considers how the artists depicted destruction and pollution. Resource extraction and silver mining from Cobalt resulted in the urbanization and expansion of Tsi tkarón:to, Canada, the most populous city in the country and the centre of much of the country's economic activities.¹⁰⁷ Entrepreneur Sir Henry Pellatt bought Cobalt Lake in 1906 and spent a million dollars to drain it and mine it for 6000 tonnes of silver between 1908 and 1914. Pellatt used the profits from this mine to purchase property in Tsí tkarón:to, especially a castle where he resided for much of his life which has now become the popular tourist attraction, Casa Loma. Capitalists like Pellatt were taking advantage of silver that was found in 1903 by construction workers building the Temiskaming and Northern Ontario Railway.¹⁰⁸ This territory was part of the Temiskaming reserve, assigned to the Nipissing, Algonquin, and Odawa communities in 1854, and today continues to be the home of the Timiskaming First Nation near Lake Timiskaming.¹⁰⁹ The Timiskaming and other Algonquin and Anishinaabeg nations in the area had mined the silver on much smaller scales for almost two thousand years, using it to make pipes, jewelry, and buttons, and often traded the metal with other nations or communities.¹¹⁰ This changed after 1903, and the town of Cobalt began to boom as they came to produce 90% of the world's silver. Only five years later, the silver mines were depleted and by the beginning of World War II, companies left

106. Encouraged by Indigenous feminist praxis to look at my surroundings, I was born and raised in Toronto and the Greater Toronto Area (GTA) in Ontario, not far from the McMichael Canadian Art Collection, and I would consider this exhibition local.

107. Mastin, 22.

108. Mastin, 11.

109. Ibid.

110. Ibid., 20.

“... a host of environmental issues, including toxic waters, drained and mined Cobalt and Kerr Lakes, and lands stripped not only of mineral but also of topsoil and trees.”¹¹¹

Cobalt: A Mining Town and the Canadian Imaginary highlights paintings of Cobalt after the mines had been completely depleted and the newly founded extractive industry had totally destroyed the environment. The paintings date back to the 1920s and 1930s and were painted mostly by G7 member Franklin Carmichael and three of his female contemporaries, Yvonne McKague, Bess Housser Harris, and Isabel McLaughlin. From an Indigenous feminist lens, I am fascinated by the artists’ commitment to showcasing the consequences of industrialization in the area, long after the companies and seemingly the country had abandoned Cobalt. While their desire to depict the town stemmed from a value for settler life, Indigenous feminist praxis encourages me to understand these paintings as a visual record and form of knowledge about the relationship between extraction and settler-colonialism in ‘Canada’’s history. By showcasing the environmental destruction and the loss of land and population, the artists resisted the idea that the town, now labelled as an economic failure, had lost its value. The Cobalt Silver Mines were a site of artistic inspiration unparalleled to any other Canadian mines despite other G7 artists having painted other mines. This is likely because industrialization hit the Eastern part of ‘Canada’ more so in the early 20th century as compared to the rest of the nation and profits from Cobalt generated urbanization across the rest of the country. Thus, I consider the paintings of the Cobalt mines in Ontario a significant part of Canadian art history and, as previously mentioned, a microcosm of the ways industrialization was part of colonial expansion into Indigenous land.

111. Ibid., 23.



Figure 2: *Kerr Lake Mine, Cobalt, Ont.* 1965. Photograph. Credit: Canada. Dept. of Mines and Technical Surveys / Library and Archives Canada / PA-017809. <https://central.bac-lac.gc.ca/.redirect?app=fonandcol&id=3376991&lang=eng&ecopy=a017809-v8>

Franklin Carmichael produced an impressive number of thirty drawings that captured the aftermath of the mining industry in Cobalt, which he produced after only one visit to the town in 1930.¹¹² He was especially careful to name the specific places where he painted in his works. For example, he painted *Crown Reserve, Kerr Lake* (1937) an impressionist, almost abstract, painting of the mine at Kerr Lake and derelict buildings in proximity to residential housing. The collection of Library and Archives Canada includes a photograph that resembles Carmichael's drawing [Figure 2]. However, the collection notes that the place is an unknown or undetermined mine owned by Crown Reserve. Carmichael's painting is a clear visual record of the mine and pollution caused by the government at Kerr Lake, clearing up a possible historical inaccuracy. Carmichael's most famous painting, though, is an earlier painting called *A Northern Silver Mine* (1930), "[...] a picture of lament and loss, for both people and the environment."¹¹³ Carmichael

112. Mastin, 60.

113. *Ibid.*, 65

presents an aestheticized scene of the mine that is at once beautiful and haunting. Cobalt Lake is depicted, not as clean, blue waters, but as a brownish-grey polluted body. The mine factory itself is painted in the foreground with the darkest colours, in shocking proximity to people's homes, perhaps pointing to its abandonment and its future impact on the community. This mine was owned by the Right of Way Mining Company located in the Cobalt townsite on Nipissing Road, owned by the Temiskaming Northern Ontario Railway, which eventually became the Ontario Northland Railway and currently exists as part of the Canadian National Rail service.¹¹⁴ The aesthetic evidence in this painting of pollution and the identification of the companies is relevant today, as they can be part of how we hold the government and other corporations accountable for the ongoing lingering effects of pollution and environmental destruction, which especially affects Indigenous nations living close to sites of extraction.

While Carmichael's paintings were key in visualizing the destruction caused by the mines in Cobalt, it was the work of three women painters who developed a style specific to the extractive operations in the town: Yvonne McKague, Isabel McLaughlin, and Bess Housser Harris. These women developed new ways of looking at the mine at a time when mostly men, specifically the Group of Seven, were celebrated as master landscape painters. On one hand, these women were not afforded the same recognition in traditional landscape painting as their male counterparts, so they developed an adjacent practice that pursued different imagery. On the other hand, they acknowledged that environmental wreckage warranted a new style of painting that moved away from earlier landscape traditions. They created a style that captured the changes caused by industrialization so as not to negatively depict wastelands, developing a practice that was markedly different from Franklin Carmichael and other G7 artists.

114. Diane Armstrong, "Some railway history of Northeastern Ontario," *The Timmins Daily Press*, April 6, 2022, <https://www.timminspress.com/opinion/columnists/some-railway-history-of-northeastern-ontario>.

Mastin writes that the artists developed three unique innovations in their practice: the iconography of romantic castles, the nocturne or nighttime scenes, and “hard light” or daytime scenes.¹¹⁵ McKague’s painting *Silver Mine, Cobalt* (1931) shows the Nipissing Mining Company’s mill, portraying the factories as romantic castles, perhaps to distract from the waste. In Isabel McLaughlin’s *Nipissing Mine, Cobalt* (1931), she takes advantage of the nighttime to romanticize the town as a nocturne. By contrast, Bess Housser Harris’s *Day End* (c. 1932) takes advantage of the daylight to intensify and brighter colours on residential homes making the scene look more aesthetically pleasing despite obviously being deserted. The fact that McKague, McLaughlin, and Housser Harris felt the need to develop a style that distracted from the industrial wasteland in Cobalt means that they likely struggled with simply painting what they saw in a totally honest way. I deduce that these artists struggled to understand how the benefits of industrialization could outweigh the costs to the environment. Perhaps the artists feared outwardly critiquing the wealthy and powerful mining industry, if the development of their artistic practices were dependent on benefactors from the industry, or if they were holding onto a Canadian identity rooted in the natural environment up until this point. After analysing these works, I sense it was likely all three. Besides the wastelands and tailing ponds left behind, the mines were increasingly dangerous places to work and labour standards were being challenged due to work-related deaths, injuries and other mental health concerns. These issues were not lost on the artists and would have informed their artistic approach. Ultimately, it’s not appropriate to say that these works were a critique of industrialization, but for the purposes of this dissertation, they demonstrate how the settler Canadian imagination and expansion have long been caught up in resource extraction and pollution.

115. Mastin, 82.

2.1.3 Critiques of Industrial Pollution (1950 to 1980)

In ‘Canada,’ Alan C. Collier was one of the first artists to noticeably express feelings of lament towards industrialization and resource extraction, likely because he worked as a labourer extracting resources in northern Ontario gold mines and building national roads in BC. Collier still worked in the landscape tradition, though his use of colour and form pointed to an obvious critique of industrial pollution.¹¹⁶ Departing from the G7 style of landscape painting, Collier took care to title each painting based on its location and showcased diverse landscapes from around the country. His works, mostly held in a large collection at The Agnes Etherington Centre in Kingston, Ontario, also show environmental wreckage caused by industrialization. For example, *Tailings Pond, Delnite Mine, Timmins, Ontario* (1952) features a dreary, gloomy scene of an industrial wasteland and the lingering tailings ponds. Tailings ponds are manufactured reservoirs that collect the waste, or tailings, that mining companies leave behind once they have depleted an area of a resource. Normally, tailings ponds are meant to allow miners to recycle the water, but the toxins produced by the mixture of bitumen and other tailings seep into the surrounding environment and waterways. *Tailings Pond, Delnite Mine, Timmins, Ontario* (1952) certainly demonstrates the leakage of tailings and the gray-black waste pools that are found around factories across the country.¹¹⁷ *Stope Drilling in a Flat Vein, Delnite Mine, Timmins, Ontario* (1951) is one of Collier’s most interesting paintings. It breaks from the tradition of landscape

116. Alan Caswell Collier, *Burned Forest, beside the Alaska Highway, Yukon*. 1960. Oil on board. Agnes Etherington Art Centre, Kingston. <https://agnes.queensu.ca/explore/collections/object/burned-forest-beside-the-alaska-highway-yukon/>.

117. Alan Caswell Collier, *Tailings Pond, Delnite Mine, Timmins, Ontario*. 1951. Oil on board. Agnes Etherington Art Centre, Kingston. <https://agnes.queensu.ca/explore/collections/object/tailings-pond-delnite-mine-timmins-ontario/>.

painting, presenting a scene of several figures mining underground. It is a dark scene, naturally as it was underground, but the colours read as a critique of the dangerous labour of mining.¹¹⁸

Moving into the 1960s, artists began to experiment with and establish new styles that responded to the onslaught of World War II, the beginning of the Cold War, globalization, and mass production. Artists turned to new media, moving beyond traditional approaches to painting to explore more nuanced critiques of social and political changes around the world. This work proliferated into a new art movement that took precedence around the world: Pop Art. Pop artists used materials, ideas, and concepts of mass production or “popular culture,” like magazines, news media, or celebrity icons, to critique “high art movements,” mass production and industrialization. During this period, artists became much more comfortable resisting institutions and publicly expressing discontentment and disdain for sponsorships, funding, and the overall power dynamics that existed within the artworld. One such artist was Joyce Wieland, one of the most famous Canadian Pop artists known today.¹¹⁹

Joyce Wieland is one Canadian artist whose work has made a profound impact on my own interest in art history, particularly because her practice reflected feminist ideas and articulated a response to the politics of her time. As art historian Johanne Sloane writes, Wieland was “ahead of her time in recognizing the importance of ecological issues, she was attuned to the racial injustices in the United States, and her espousal of feminist ideals also became part of an expanded political consciousness.”¹²⁰ As I learnt later in my academic career, she was, nonetheless, committed to the nationalist idea of Canadian art and reproduced a kind of settler

118. Alan Caswell Collier, *Stope Drilling in a Flat Vein, Delnite Mine, Timmins, Ontario*. 1951. Oil on board. Agnes Etherington Art Centre, Kingston. <https://agnes.queensu.ca/explore/collections/object/stope-drilling-in-a-flat-vein-delnite-mine-timmins-ontario/>.

119 Other artists included Jack Chambers, Greg Curnoe, General Idea, and Michael Snow.

120. Johanne Sloan, *Joyce Wieland: Life & Work*, (Toronto: Art Institute Canada, 2014), 7, accessed January 22, 2026, <https://www.aci-iac.ca/art-books/joyce-wieland>.

ideology and idealism. Wieland's interest in the Arctic likely arose from the idea of the North as an inherited part of Canadian identity and a "source of spiritual flow."¹²¹ That being said, her works resisted claims of ownership over resources expressed by 'Canada' and the 'United States' that would result in ecological destruction. One of her earliest works on the Arctic is *The Water Quilt* (1970-71), a quilt that includes arctic flowers and concealed book-pages. The flowers are botanically accurate renderings embroidered on sixty-four panels. Each square fabric panel can be lifted to reveal printed text from James Laxer's *The Energy Poker Game: The Politics of the Continental Resources Deal* (1970). The book discusses the possibility of American corporations seizing 'Canada's' northern water resources to supply the southern country with freshwater. Alarmed by this, Wieland decided to juxtapose text from the book with imagery of beautiful arctic flowers, underscoring the importance of the northern ecology that was and continues to be under threat of environmental destruction.

Wieland continued to sound the alarm around government powers taking over the Arctic, most notably in her lithograph *The Arctic Belongs to Itself* (1973). Similar to her *O Canada* lithograph, Wieland pressed her lipstick-stained lips onto a piece of paper after saying each syllable in the sentence "the Arctic belongs to itself." Viewers might become curious about how Wieland used the syllable in the work and begin to repeat the phrase, much like I did when I first experienced this work. The result is that those who perhaps had never considered sovereignty in the Arctic would suddenly verbalize that the arctic indeed belongs to itself.¹²² Her later works continued to advocate for Arctic ecological preservation. *Arctic Day* (1970-71) is a large,

121. Anne Grace and Georgiana Uhlyarik, "Joyce Wieland: Heart On," (Fredericton, New Brunswick: Goose Lane Editions, 2025), 186.

122. Theories and literature on Indigenous or Arctic sovereignty was written and articulated by Indigenous scholars and community leaders many years after Joyce Wieland passed away, and especially since 2012. It's not accurate to use these frameworks to A) study a white artist who is not from the North, and B) use a framework from the present to study work from the past.

circular work made of individual cloth cushions and coloured pencil. Wieland has drawn animals on each cushion and wrote the names of each animal on the back. Her use of white cloth to emulate shadows on snow certainly plays into the stereotype of the Arctic as experiencing only the winter season. At the same time, the work highlights the threats to animals in the Arctic. This changes in *Barren Ground Caribou* (1978), a colourful quilt of caribou on top of the tundra. Caribous, native to the Arctic and known as reindeer in other parts of the Circumpolar North, are depicted in a summer scene on grass, not snow. The quilt was created as a public art piece that would hang in the Spadina Subway station in Tsí tkarón:to. In her proposal of the quilt, Wieland wrote that ecological preservation in the Arctic was part of Canadian national identity. Absent from these works, though, were the inclusion and presence of Northern Indigenous communities.

My research suggests that works by Indigenous artists that commented on environmental themes and industry were rarely collected or exhibited during the 1960s and the 1970s. I was able to find one painting by Anishinaabe artist Francis Kagige (Odawa Nation) called *Nature's Lament* (1976) in the Art Gallery of Guelph's permanent Collection. Painted in the Woodland School style, it shows a figure who cries with a bleeding heart surrounded by dead and dying moose, bison, and fish.¹²³ There is a possibility that the figure is the artist himself, expressing lament and grief due to the loss of life and ways of living in his nation.¹²⁴ The Woodland School Style was, of course, founded by Anishinaabe painter Norval Morrisseau, whose works have been collected en masse across 'Canada.' Arguably, Kagige's works may have been collected because he painted in a tradition that the Canadian art historical canon deemed appropriate as

123. Francis Kagige, *Nature's Lament*. 1976. Serigraph. Art Gallery of Guelph. <https://guelph.emuseum.com/objects/7936/natures-lament>.

124. Kathryn Blaze Baum, "Why the ROM is creating a climate-change curator," *The Globe and Mail*, September 25, 2020, <https://www.theglobeandmail.com/canada/article-why-the-rom-is-creating-a-climate-change-curator/>.

fine art. In Inuit Nunangaat, the only artist who seemingly responded to the rise of industry in the 1970s and 1980s was Nunavummiuk artist Pudlo Pudlat, well-known for his works that showcase the influx of settlers and expansion of colonial power into the Arctic via airplanes, boats and helicopters.¹²⁵ In *Untitled (Hunter and Wife, Airplane, Landscapes)* (c. 1979), Pudlat depicts a rather romantic scene of a hunter leading his wife to hunt, while a plane flies above them. The light from the plane seems to almost be hitting the couple, hinting at the intrusiveness of planes in the area. The plane appears slightly out of place in the scene that also includes a small town and animals, which provides the viewer with a sense of grief and curiosity. The drawing feels like it is capturing a (forced) transition from tradition to technology, or that the two ways of living are co-existing despite their differences and distance from one another.¹²⁶

Due to the absence of Circumpolar artworks in museum and gallery collections on environmental themes before 1980, I argue that it is important to consider Joyce Wieland's work as aesthetic evidence and a visual record of how American and Canadian governments threatened Inuit communities and the environment during this period. While Wieland's works cannot be considered as advocating for Inuit sovereignty, from an Indigenous feminist lens, they articulated questions around sovereignty in the Canadian Arctic and Inuit Nunangaat. Placing her work in conjunction with works like Pudlat's, one can paint a bigger picture of the ways in which superpowers have threatened to colonize the Arctic and ignore Inuit sovereignty. As I write, the American government led by the far-right Fascist leader Donald Trump has threatened to take over 'Canada' as well as different parts of the Arctic, specifically Kalaallit Nunaat

125. His brightly coloured drawings typically include his signature airplane motif. It is widely known that the Canadian government flew across Inuit Nunangaat to set up military bases, move supplies and equipment, and take children to residential schools.

126. Pudlo Pudlat, *Untitled (Hunter and Wife, Airplane, Landscapes)*. 1979-1978. Coloured pencil, felt-tip pen. The McMichael Canadian Art Collection, <https://iningatilagiit.ca/artwork/untitled-hunter-and-wife-airplane-landscapes/>

(“Greenland”), with the intention of extracting resources from both countries. Looking at these example works by Pudlat and Wieland tells us that these threats are not new, only continued.

Throughout the 1970s, more artists began to publicly express disdain for pollution and extractive industries. One of the first moments in ‘Canada’ that publicly expressed support for Indigenous rights via institutional protest was the artist boycott of the 1976 exhibition *Changing Visions: The Canadian Landscape* that sought to highlight the mercury poisoning of the Asubpeecheoseewagong Netum Anishinabek (“Asubpeecheoseewagong”).¹²⁷ The Dryden Chemical Company (“Dryden Chemical”) dumped 9,000 litres of mercury into the English-Wabigoon river in the 1960s. Dryden Chemical produced substances which were used by other companies, like Dryden Pulp and Paper Company owned by Reed Paper Limited (“Reed Paper”). Eventually, Dryden Pulp was ordered to stop dumping waste into the river in 1970, though mercury poisoning was at its highest in the years that followed, resulting in contaminated water and food supplies of the Asubpeecheoseewagong. Fishing is a traditional and historical practice of the nation, and fish forms a staple of the nation’s diet.¹²⁸ Upon consuming fish or using the water in any way, the nation was effectively poisoned. Federal and provincial officials were unclear and contradictory as to whether the fish should be consumed, likely to prevent panic and even culpability. Mercury poisoning includes symptoms like tremors, insomnia, paralysis, memory loss and neuromuscular effects, headaches, and cognitive and motor dysfunction.¹²⁹ This kind of poisoning can be particularly devastating for pregnant women whose

127. I rely heavily on writing and in-depth archival research done by Kirsty Robertson in her book *Tear Gas Epiphanies: Protest, Museums and Culture* (2019). Robertson is one of the only scholars who has written about the exhibition boycott.

128. Kirsty Robertson, (*Tear Gas Epiphanies: Protest, Culture, Museums*. Montréal, Canada: McGill-Queen's University Press, 2019), 51.

129. Sarah Law, “Mercury poisoning near Grassy Narrows First Nation worsened by industrial pollution, study suggests,” *CBC News*, May 23, 2024, <https://www.cbc.ca/news/canada/thunder-bay/grassy-narrows-first-nation-methylmercury-study-1.7211750>.

babies are often born with physical and health defects. Around 90 per cent of the current population in the nation still deals with mercury poisoning.¹³⁰ In 2024, new studies confirmed that ongoing industrial pollution in the river is worsening the mercury poisoning, creating a new kind of toxin called methylmercury.¹³¹ At the time of writing, the government has promised funding for a Mercury Care Home, but they have yet to clarify if the water will be cleaned or if the mill will close down, despite calls for both.¹³²

Reed Paper sponsored the exhibition *Changing Visions: The Canadian Landscape*, a major exhibition at the AGO in Tsí tkarón:to with acclaimed Canadian artists of the 1960s and 1970s, including Joyce Wieland, Michael Snow, Iain Baxter&, Tom Benner, Jack Chambers, and Greg Curnoe. According to settler/Scottish/Irish museums studies scholar Kirsty Robertson's archival research, the exhibition included photography, performance, and land art as a way to interrogate and reflect on how landscape art has dominated Canadian art history.¹³³ The artists were outraged that Dryden contaminated the river knowing that it would endanger the lives of the Asubpeechoosewagong and decided to protest outside the AGO with the Anti-Reed Campaign (ARC) and encouraged a boycott. The AGO ignored many of the artists' requests for the show to be cancelled and their works to be removed. According to Robertson's research, Joyce Wieland was reported to have forcibly removed her work off the wall and the artists engaged in a protest that included throwing frozen fish at visitors, jostling and booing them as they entered the gallery. These artists were part of the Canadian Artists Representation, known

130. Ibid.

131. Ibid.

132. Brett Forester, "Grassy Narrows chief calls out Ottawa for 'ridiculous' delays to mercury treatment centre construction," CBC News, last modified February 16, 2024. <https://www.cbc.ca/news/indigenous/grassy-narrows-chief-treatment-centre-mercury-1.7117352>.

133. Robertson, 35.

today as the Canadian Artists Representation/Fondation des Artistes Canadiens (CARFAC).¹³⁴ CARFAC was founded by Jack Chambers after his dispute with the National Gallery of Canada over reproduction rights to his work in 1968. I argue that the formation of CARFAC was one reason why these mostly white, settler artists felt comfortable publicly calling out the AGO.

Robertson explains that the Anti-Reed Campaign (ARC) alerted the artists that Reed Paper sponsored the show. She goes on to suggest that what sparked responses to mercury poisoning in the nation was The Ojibway Warriors Society's occupation of Anicinabe Park two years before the exhibition, which ultimately led to the formation of ARC. I agree with this, and my discussion of the boycott does not seek to galvanize the artists as saviours or forget the efforts of the Asubpeecheoseewagong and other nations in advocating for their rights. Working from an Indigenous feminist lens, I believe that this moment presented a shift in consciousness in the Canadian artworld and presented an early moment of solidarity in the decolonial struggle. When well-known Canadian artists of the time stood against the AGO, it was clear that they believed that art and the institutions that display it were implicated in the Canadian settler project. In other words, the artworld could not be separated from the ongoing mistreatment of Indigenous peoples. This boycott marked the first of many acts of dissidence that exposed the Canadian artworld's complicity in pollution and extraction on Indigenous land.

2.2. Wave 2: Pollution on Indigenous Land (1980 to 2012)

Beginning in the 1980s, many artists, like Rebecca Belmore, called into question 'Canada's' efforts to colonize Indigenous lands by supporting resource extraction, guaranteeing settler futures at the expense of Indigenous lives and rights. Though there were many artists

134. CARFAC regulates rules around artists' rights to their work and standard fees based on specific types of labour, including artmaking, consultation, and royalties.

working towards these goals, I focus on key artists whose practices have continued to influence artistic and cultural practice today. Notably, I did not set out to include only Indigenous artists in this section, yet my research in archives revealed that Indigenous artists in ‘Canada’ were almost exclusively outlining the link between colonialism and land degradation before 2012. Public and private operations of resource extraction are often illegally performed near Indigenous communities or by forcibly taking these communities off their land, bypassing environmental assessments, or simply ignoring land rights outlined in the Indian Act. It might be said that many Indigenous artists and scholars discuss the importance of land pedagogy, or learning from the land. This is true for scholars such as Vanessa Watts (Mohawk and Anishinaabe Bear Clan, Six Nations of the Grand River), Leanne Betasamosake Simpson (Michi Saagiig Nishnaabeg), and Zoe Todd (Métis). But these kinds of generalizations can be harmful, and Indigenous peoples hold very specific, community-grounded beliefs or cosmologies. More simply, these assumptions verge on stereotypes about primitive Indigenous peoples who are “connected to nature.” It is more accurate to suggest that there is a pattern of Indigenous artists who resist the colonial underpinnings of extractive industries because those actions have occurred on Indigenous land — which is all of ‘Canada’. I argue that these responses were likely the first instances in ‘Canada’ where artists and artworks began to embody perspectives of Indigenous communities.

2.2.1 Artists Expose Extraction

White settler museum studies scholar Camille-Mary Sharpe explains that in an effort to explore the mineral resources of ‘Canada’ as a result of increasing reliance on oil and gas in the early 1800s, the government tasked the Geological Survey of Canada (GSC) to essentially map out possible geological resources to create knowledge for the mining and resource extraction industry. This museum was eventually named the Canadian Museum of Civilization, based in

‘Ottawa,’ now known as the Canadian Museum of History.¹³⁵ The prevalence of oil and gas sponsorship of museums and galleries is most clear in ‘Alberta,’ and ‘Ontario,’ a fact that was first exposed in the 1980s during the run of *The Spirit Sings: Artistic Traditions of Canada’s First Peoples* (“*The Spirit Sings*”). This was an exhibition held at the Glenbow Museum, Alberta, at the same time as the 1988 Olympic Winter Games. It highlighted Indigenous art and objects from institutions around the world, curated by a team of non-Indigenous curators who were regional subject matter ‘experts’ at the time. The exhibition was meant to emphasize the significance of Indigenous art in the Canadian artworld, but a crucial part of the exhibition was its support for the repatriation of objects back to the communities they were taken from. However, the presented works were mostly historical objects that reinforced a narrative of Indigenous peoples as static and part of the past, rather than living in the contemporary world.

The Spirit Sings is a notorious case in Canadian art and museum history where a large-scale, international boycott of the exhibition was called in support of the Muskotew Sakahikan Enowuk (‘Lubicon Lake First Nation’). In anticipation of the exhibition, the nation wrote a letter to 110 museums around ‘Canada’ and the world, asking them to boycott the exhibition because its main sponsor, Shell Oil ‘Canada’ Limited (hereafter referred to as “Shell Oil”), was illegally drilling into land claimed by the Nation to extract oil. The Nation’s boycott sought to expose the hypocrisy of the museum and exhibition for supposedly celebrating Indigenous artists and culture while receiving funding from a corporation that was threatening the sovereignty and future of the Nation.¹³⁶ As Robertson notes, The Glenbow Museum had either denied complicity or felt incapable of encouraging negotiations between the Canadian government and the Nation.

135. Camille-Mary Sharp, “Oil-sponsored exhibitions and Canada’s extractive politics of cultural production,” *Imaginations: Journal of Cross-Cultural Image Studies* 13 no. 1 (July 1, 2022), 24, <https://doi.org/10.17742/IMAGE.PM.13.1.2>.

136. Robertson, 35.

This led to a huge protest on the day the exhibition opened, as well as an art performance by Rebecca Belmore.

Rebecca Belmore is an acclaimed Anishinaabe artist from Obishikokaang (“Lac Seul First Nation”). Belmore is internationally recognized for her multidisciplinary work, particularly her performance art works like *The Named and the Unnamed* (2002), *Fountain* (2005) and *Ayum-ee-aawach Oomama-mowan: Speaking to Their Mother* (1991). She has also participated in many international art shows and fairs, including the 2022 Whitney Biennale and the 2005 Venice Biennale. In 1988, Belmore performed *Artifact #671B*, where she presented herself as an artifact in protest of *The Spirit Sings*. Wrapped in a blanket and marked with the Shell Oil logo and an artifact label, Belmore sat still in cold temperatures alongside the Trans-Canada Highway outside Thunder Bay, Ontario.¹³⁷ She became immovable like a museum object, labeling herself like objects collected from Indigenous communities where the provenance was not recorded. Belmore’s work drilled — pun intended — into the Canadian artworld that Indigenous peoples are not objects, nor do they exist as part of the past. Indigenous peoples’ livelihoods and rights are continuously affected by extractive industries that serve to advance the Canadian settler project. By presenting herself as an artifact, she suggests that Indigenous peoples are only ever accepted as passive objects in museums, and their resistance to settler colonial power to protect communities and defend the land is frowned upon. Belmore’s performance and the broader protest of the exhibition may not have instigated better negotiations between the ‘Canadian’ government and Indigenous communities, but it did result in a total reimagining of how museums engage with Indigenous art and culture.

137. Jolene Rickard, "Rebecca Belmore: Performing Power," in *Rebecca Belmore: Fountain*, eds. Rebecca Belmore and Jessica Bradley, (Kamloops Art Gallery and Morris and Helen Belkin Art Gallery, 2005), 1, https://www.rebeccabelmore.com/assets/Performing_Power.pdf.

In 1996, after a few years of symposiums and discussions about the public frustration with the exhibition, the Task Force Report on Museums and First Peoples (hereafter referred to as “the Task Force Report”) was released.¹³⁸ The Task Force Report recognizes the Muskotew Sakahikan Enowuk’s boycott of *The Spirit Sings* as the impetus for its creation. Despite its ethnographic museum focus, the Task Force is a rather impressive document for its time. It was created through collaboration between the Assembly of First Nations and the Canadian Museums Association, with participation from directors, curators and other administrators from some of the largest museums and galleries across the country. It is a short document that outlines three key strategies for inviting Indigenous communities to take part in exhibitions, cultural programming, and, most of all, begin work around the repatriation of objects back to their communities. At the end, it includes collaborations between Indigenous peoples and museums suggesting tangible, practical actions for moving forward.¹³⁹ One interesting omission, however, is a discussion of how Canadian institutions are complicit in the ongoing theft of Indigenous land by accepting private donations and sponsorships from extractive industries. This is somewhat ironic given that *The Spirit Sings* boycott due to its connection to Shell Oil was the impetus for protests that led to the creation of the Report in the first place.

The 80s and 90s saw an explosion of Indigenous artists speaking back to colonial power and resisting colonial encroachment on their communities’ land. Belmore created *Temple* (1996), a huge installation at the Power Plant Contemporary Art Gallery in Toronto. The installation was made of plastic bags filled with a combination of tap water and water collected from various waterways around Toronto, including Lake Ontario and the Don River, and was installed beside

138. Task Force Report on Museums and First Peoples, *Turning the Page: Forging New Partnership Between Museums and First Peoples*, 3rd edition, (Ottawa, Ontario: Assembly of First Nations and Canadian Museums Association, 1994) http://museums.in1touch.org/uploaded/web/docs/Task_Force_Report_1994.pdf.

139. *Ibid.*, 16-18.

a functioning water fountain. Having grown up in Toronto, I am well-aware of the amount of litter and pollution in both Lake Ontario and the Don River. *Temple* acts in two ways: 1) it underscores the dubious ways in which we drink water, packaged and sold, hinting at future fighting over water as a resource, and 2) it demonstrates that water, as a form of capital in settler-colonial conditions, becomes “a site of struggle and violence.”¹⁴⁰ It points to the reality of unequal access to clean water, especially for Indigenous communities whose main water and fishing sources are frequently polluted by industry.

From the late 1970s until his death in 2006, Canadian¹⁴¹ artist and videographer Mike MacDonald (1941-2006) created documentaries and different forms of video art that recorded Indigenous resistance to settler power and the Canadian state. For example, MacDonald worked on *Nishгаа Survival* (1981), a film commissioned by the Native Brotherhood of British Columbia, documenting the resistance movement against the dumping of radioactive tailings into the ocean by Alice Army, British Columbia. In 1981, Amax Incorporated began dumping 6000 tonnes of toxic sludge into waters where the Nisгаа fished for thousands of years. The documentary showed that the government actively circumvented regulations to give Amax a special waiver to dump the tailings containing heavy metals, disregarding research from scientists who advised against it.¹⁴² MacDonald also worked on *What Price an Island* (1985), a documentary about activists preventing the clear cutting of Meares Island, BC, the territory of

140. Mark Watson, “Indigenising Water: Rebecca Belmore’s Fountain and the Crisis of Hydro colonialism,” *Third Text* 36 no. 3 (May 3, 2022), 199, <https://doi.org/10.1080/09528822.2022.2058806>.

141. At time of writing, Mike MacDonald’s Indigenous ancestry is not verified, so I refer to him as Canadian. Although it should be noted that he has been recognized as Mi’kmaq by several art institutions, artists, and historians who have studied him in recent years. For example, garden historian Katherine Ylitalo discusses MacDonald’s life in “Mike MacDonald’s Butterfly Garden: The Little Garden that Could” (2019), an article published in the book, *Intertwined Histories: Plants in Their Social Contexts* (2019).

142. Lisa Myers, “Press the Record Button: Aesthetics of evidence in Mike Macdonald’s art practice,” in *Other Places: Reflections on Media Arts in Canada*, ed. Deanna Bowen, (Toronto, Canada: PUBLIC and Media Arts Network of Ontario, 2019), 199.

the Nuu Chuh Nulth. According to G'chimnissing artist and scholar Lisa Myers, MacDonald worked with the Gitxsan and the Wet'suwet'en to create videos as documentary evidence of their connection to their territory at a time when the nations were actively fighting for land rights.¹⁴³ Most significantly, MacDonald documented videos and oral histories from Elders who were not able to travel to the BC courts to challenge the province. These videos were used as evidentiary testimony in the *Delgamuukw v. British Columbia* case of 1997.¹⁴⁴ The Gitxsan tribal council also used MacDonald's work as a record of their traditional medicines in the Gitxsan language for future projects.¹⁴⁵

My research in museum and gallery collections suggests that it was around this time that more Inuit artists began to express concerns about or comment on the political, environmental, and social changes happening around them, similar to Pudlo Pudlat's earlier body of works. While Inuit artists demonstrated concerns for the environment in their works and the ongoing colonial expansion into Inuit Nunangat, I do not think it is accurate to discuss their works as responses to pollution and climate-change as such, but as responses to environmental changes more broadly. I focus on works by David Ruben Piqtoukun (Inuvialuk), Tommy Nuvaqirq (Nunavummiuk) and Napachie Pootoogook (1938-2002; Nunavummiuk) to illustrate how Inuit artists began to respond more obviously to settler colonial expansion in their communities in the

143. *Ibid.*, 214.

144 The *Delgamuukw* case was a landmark case taken to the Supreme Court of Canada to secure title to land. While titles were still not secured, the case is considered historical because it allowed for future legal consideration of oral history as evidence, defined criteria for land titles, and it established a principle under Canadian law for First Nations to be consulted under their land titles. This information is from Lisa Myers, "Press the Record Button: Aesthetics of evidence in Mike Macdonald's art practice," 214.

145. Sheila Colla, Dana Prieto and Lisa Myers, "How Wet'suwet'en butterflies offer lessons in resilience and resistance," *The Conversation*, February 25, 2020, <https://theconversation.com/how-wetsuweten-butterflies-offer-lessons-in-resilience-and-resistance-132418>.

1980s and 1990s.¹⁴⁶ Artist and carver Piqtoukun’s 1995 stone carving *Airplane* (1995) uses similar airplane imagery to Pudlat’s drawings. Inuvialuk storyteller Tom McLeod notes that this work speaks to the moment when Inuit children were taken from their homes, the igloo, away on airplanes to residential schools.¹⁴⁷ Most Inuit were excited to fly in these planes, but the painful stories from when they arrived at their destinations were barely spoken about. Similar to Piqtoukun’s work, Pootoogook’s drawing *Namonai’s Vision of the Future* (c. 1996) tells a story that speculates about the combination of modern technology and tradition. Nunavummiuk art historian Nakasuk Alariaq describes that Namonai was an angakkuq¹⁴⁸ who had a vision that future homes would be connected by rope, likely referring to wires to connect telephones and the internet.¹⁴⁹ With similar questions around the future, Nuvaqirq’s *In View of the Future* (1985) presents various buildings, like homes and a church, alongside more traditional tent structures, one of which is upside down. Qajaqs (“kayaks”) are placed around the buildings, contrasted by a fisher in a boat. Nunavummiuk architect Nicole Luke speculates that the upside-down tent may have fallen over due to permafrost degradation or from the harsh Arctic weather conditions. The title of the work suggests that buildings and technologies in the Arctic may present new challenges for Inuit, and as Luke suggests, Nuvaqirq’s drawing may ask “what lies ahead for these Arctic communities?”¹⁵⁰

146. I chose these artists because I spent a lot of time understanding their works as project coordinator for an audio-guide as part of *INUA*, the inaugural exhibition of Qaumajuq-WAG, the Inuit Art Centre based on Treaty One Territory (Winnipeg, Manitoba).

147. Tom McLeod, *Nagvaaqtavut, What We Found: The INUA Audio Guide*, (Winnipeg, Manitoba, Canada: Winnipeg Art Gallery, 2022), audio-guide, <https://www.wag.ca/inua-online/>.

148. A figure with intellectual and spiritual knowledge, or a shaman.

149. Nakasuk Alariaq, *Nagvaaqtavut, What We Found: The INUA Audio Guide*, (Winnipeg, Manitoba, Canada: Winnipeg Art Gallery, 2022), audio-guide, <https://www.wag.ca/inua-online/>.

150. Nicole Luke, *Nagvaaqtavut, What We Found: The INUA Audio Guide*, (Winnipeg, Manitoba, Canada: Winnipeg Art Gallery, 2022), audio-guide, <https://www.wag.ca/inua-online/>.

In the early 2000s, Indigenous communities contributed to the development and implementation of several national and international acts, standards, agreements, and declarations. Continuing to build upon former work such as the Royal Commission on Aboriginal Peoples (RCAP) and the Task Force on Museums and First Peoples, these guiding documents would implicate nations in the ongoing colonization of Indigenous lands and mistreatment of Indigenous peoples. For example, the United Nations introduced a guiding document called the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), which outlined the obligation of states around the world to uphold the rights of Indigenous peoples.¹⁵¹ Because ‘Canada’ only officially recognized UNDRIP in 2016, and implemented it into a federal act in 2021, I have chosen not to discuss it in detail in this section. In ‘Canada’, one of the most significant documents of the 2000s was the Indian Residential Schools Settlement Agreement (IRSSA). This agreement was acknowledged by the Canadian government and the Assembly of First Nations (AFN), and it came into effect as a result of a massive class action lawsuit against the Canadian government for the forced removal of children from their families and the abuse that they faced. Residential schools were set up to ensure that Indigenous children would cease to learn their respective languages and cultures, with the overall aim of assimilating and eradicating Indigenous peoples from the country. In other words, residential schools were part of a large-scale, meticulously operated cultural genocide at the hands of the Canadian government. The IRSSA is the first instance in which the federal government publicly apologized for past actions of the government and acknowledged that 150,000 children were forcibly removed and separated from their families. In a large majority of these schools, children

151. United Nations General Assembly, *Resolution 61/295, United Nations Declaration on the Rights of Indigenous Peoples*, (New York, NY: United Nations) adopted September 13, 2007, https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf.

were sexually and physically abused, and many did not survive — the burials of whom continue to be discovered at the time of writing. The lawsuit was historic and would be implemented in five parts, including the 2016 Truth and Reconciliation Commission (TRC).

While the IRSSA does not directly relate to issues around pollution and resource extraction, I believe it led to an acknowledgement of colonial underpinning in Canadian institutions, including museums, galleries, and educational institutions. This formed the basis for future cultural and artistic programming at museums and galleries that created links between pollution and settler-colonialism, which I discuss in the next section. Almost immediately after the Canadian Prime Minister Stephen Harper formally apologized on behalf of the Canadian government for the establishment of residential schools as an assimilationist policy, artists began responding to the politics and shortcomings of the IRSSA.¹⁵² Artist Cathy Bushby, for example, created her *SORRY* series as a response to politicians who were making public apologies to BIPOC communities for past wrongdoings and mistreatment. In *WE ARE SORRY* (2010), Bushby included Harper's apology as large, printed text installed on gallery walls with an image of his lips along with a similar apology from Australian Prime Minister Kevin Rudd.¹⁵³ At the same time, some artists were commissioned by organizations to create works that commemorated the apology and the introduction of the IRSSA as a historic event. Métis artist Christi Belcourt was commissioned by the federal government to transform her work *Giniigaaniimenaaning (Looking Ahead)* (2012) into a stained-glass window in the Centre Block on Parliament Hill.¹⁵⁴ The imagery depicts a narrative of Indigenous communities' cultures and

152. Stephen Harper, "Statement of apology to former students of Indian Residential Schools," Text of statement delivered in Ottawa, Canada, June 11, 2008, <https://www.rcaanc-cirnac.gc.ca/eng/1100100015644/1571589171655>.

153. Cathy Busby, *WE ARE SORRY Winnipeg*. 2010. Winnipeg Art Gallery. <https://cathybusby.ca/2010/we-are-sorry-winnipeg>.

154. Christi Belcourt, *Giniigaaniimenaaning (Looking Ahead)*. 2012. Stained glass. Centre Block, Parliament Hill. <https://www.rcaanc-cirnac.gc.ca/eng/1339417945383/1571586663244#chp1>.

ceremonies pre-colonialism, the experience of residential schools, and future healing and transformation through reconciliation. These kinds of reconciliation-focused artworks would continue for many years, with the number amplifying when the TRC was published in 2016.

Moving into the early to mid 2000s, another artist began to clearly target the consequences of industrialization and globalization: Brian Jungen. The Dane-zaa and Swedish artist is based on Treaty 8 Territory in northern 'British Columbia', and his works have been exhibited nationally and internationally. Much of his practice includes "distinctive transformations of mass-produced objects," most notably his use of Nike Air Jordans and other popular sneakers to create traditional Indigenous masks of First Nations from the so-called Northwest coast of British Columbia. Jungen's use of mass-produced objects harkens back to pop art of the 1970s and 1980s, however, this becomes slightly obfuscated in his use of Indigenous iconography, symbolism, and artistic practices. The result is a tension between cultural identities, globalization, and appropriation. His carved gasoline jug series (2008-) most obviously points to the ongoing pollution of Indigenous land by industrial oil and gas extraction. For this series, Jungen punctured holes in the pattern of dragonflies, leaves, wasps, and other designs on variously coloured gasoline jugs. These jugs are produced en masse in plastic, a non-biodegradable material, to transport gas for residential use, like in lawnmowers, other small engines, or cars. Quite simply, in an artistic context, the gasoline jugs are symbolic of extractive industries. The designs cut into them were derived from traditional Haida beading patterns, which are inarguably beautiful. In *Wasp* (2008), Jungen created a pattern with different sized dragonflies, which is symbolic of change, transformation, and dynamism.¹⁵⁵ Thinking back to MacDonald's interaction with butterflies, I think about dragonflies, which thrive near and around

155. Spirits of the West Coast Art Gallery, "The Dragonfly," accessed November 13, 2025, <https://spiritsofthewestcoast.com/collections/the-dragonfly-symbol>.

waterways, in Jungen's jugs as symbolic of both healing and transformation. By carving these designs into the jug, Jungen juxtaposes beautiful, transformative, healing creatures, like butterflies and dragonflies, with a gasoline jug that symbolizes destruction, death, pollution, and threats on life. By turning the jug into an artwork, Jungen also inhibits the jug from being able to perform its intended function of transporting oil. The juxtaposition becomes a critique of extraction and proposes the possibility of transforming relationships to land that aren't rooted in violence or harm but healing and care.

In the early 2000s, Inuit artists evidently began to create work around climate change. That is not to say that artists were not actively considering resource extraction or pollution in their environments before 2000 — this reflects what I found when I researched in archives and collections. I highlight four artists who produced works throughout the 2000s that consider pollution in relation to their community around Inuit Nunangaat: Tim Pitsiulak (Nunavummiuk), Bill Nasogaluak (Inuvialuk), Ningiukulu Teevee (Nunavummiuk) and Elisapee Ishulutaq (Nunavummiuk; 1925- 2018). Based in Kinngait, Nunavut, Ningiukulu Teevee is a graphic artist who typically works in drawing and is known for her comical, playful interpretations of long-standing oral histories. Teevee's 2002 ink on paper drawing *Untitled (Sedna by the Sea)* is a humorous take on climate change. The oral history of Sedna is about a woman who guards or lives under the sea. She is recognized to have immense power, strength, and she can become very angry if disrespected. Inuit in Inuit Nunangaat refer to the woman of the sea as Sedna, Nuliajuk, or Takannaaluk, while Kalaallit in Kalaallit Nunaat call her Sassuma Arnaa.¹⁵⁶

Kalaaleq scholar Karla Jessen Williamsen tells the story of Sassuma Arnaa:

She was an ordinary Inuk girl who grew up and had an affair with a dog (Stuckenberger, 2007). Her father found out and in punishment banned her to an island. In her attempt to

156. The stories of Sassuma Arnaa, Sedna, Nuliajuk, or Takannaaluk are different, but all similarly discuss the origins of the woman of the sea, her power, and her protection of waterways.

gain her father's forgiveness, she tried to cling to the railing of her father's boat as he was rowing away, only to have her fingers chopped off. While sinking slowly, her fingers became the whales, the walrus, the seals, the birds, the fish, and any other being that Inuit needed for their livelihood. She sank to the bottom of the sea and became the goddess of all living beings in the sea. She controls the animals and the sea birds, protecting them against human frailty and abuse. Among the Canadian Inuit, she is variously named Sedna, Nuliaajuk, and Takannaaluk. In Greenland she is known as Sassuma Arnaa—the Lady Down Under. She holds power so great that only the greatest, most sensitive, and courageous shaman can reach her when she gets angry.¹⁵⁷

Teevee depicts Sedna smoking, watching despairingly as trucks dump black waste and garbage into the sea. As Williamson's retelling of the story suggests, the Lady Down Under is typically shown as a powerful protector, but in Teevee's rendering she is fed-up and tired of toxins and pollution in the water. Could it be that Sedna has fought to the point of exhaustion against human abuse of nature and aquatic creatures? The artist suggests a grim future ahead, illustrating the challenge of dealing with the consequences of industrialization and ecological destruction, especially if Sedna is so tired. Bill Nasogaluak's stone carving, *Bear Falling Through Rotting Ice (Arctic Angst)* (2006) is a more literal take on the impact of melting ice on animals in the North. Nasogaluak is an Inuvialuk multidisciplinary artist based in Tuktoyaktuk, who is most known for his stone and metal works that provide cultural and political commentary about contemporary Inuit life.¹⁵⁸ The carving shows a polar bear drowning after falling through rotting or melted ice. It is well-known that one of the ways the Arctic feels the effects of climate change is through glacial melt, and premature ice melts in places that normally stay frozen for longer. Polar bears are often seen as a symbol of climate change in the Circumpolar North, and images of the sad, helpless polar bear are often used by environmental organizations to call "attention to the precariousness of their situation, thus heightening the viewers' sense of the animals'

157. Karla J. Williamson, "Uumasuusivissuaq: Spirit and Indigenous Writing," In *Education* 20, no. 2 (2014): 140. <https://ineducation.ca/ineducation/article/view/168>.

158. Inuit Art Foundation, "Bill Nasogaluak," last modified December 19, 2018, <https://www.inuitartfoundation.org/profiles/artist/Bill-Nasogaluak>.

vulnerability to danger and threat.”¹⁵⁹ Nasogaluak disrupts this perception of the Arctic by using his own perspective that is shaped by his experience.

Two other works that speak directly to the theme of climate change are Tim Pitsiulak’s pencil crayon drawing *Climate Change* (2011) and Elisapee Ishulutaq’s oil-stick drawing *Climate Change* (2012). Based in Kinngait, Tim Pitsiulak was a Nunavummiuk artist whose drawings and prints are acclaimed, especially his detailed drawings that are based on his photographs.¹⁶⁰ His works were inspired by his life as a hunter which afforded him a kind of closeness to his environment and its biodiversity. As a result, he produced visually stunning, colourful drawings of animals, landscapes, and aquatic creatures. Being a hunter, Pitsiulak would have naturally been quite concerned with the changing climate, likely seeing the way the land transformed as the Arctic warmed and how it affected Arctic animals. In *Climate Change*, Pitsiulak draws an older man with deep wrinkles in his face and greying hair, but half of his face is crumbling ice.¹⁶¹ The man appears solemn, tight-lipped and the look in his eye suggests a concern for the melting ice. By creating a sense of embodiment with ice as part of the man’s face, Pitsiulak proposes that ice and, by extension, the environment are integral to his community’s survival — the melting of which results in an outlook of loss. His drawing also provokes questions about how Inuit living in the Arctic uniquely embody the weather and land. In many ways, the drawing is a kind of warning to the viewer about the risk of the ongoing melt of ice and glaciers.

159. Kate Manzo, “Beyond polar bears? Re-envisioning climate change,” *Meteorological Applications* 17 (May 4, 2010): 198, <https://doi.org/10.1002/met.193>.

160. Inuit Art Foundation, “Tim Pitsiulak,” last modified June 12, 2018, <https://www.inuitartfoundation.org/profiles/artist/Bill-Nasogaluak>.

161. Inuit Art Quarterly, “Listening for Sedna: Contemporary Inuit Art and Climate,” Spring Issue, published online September 30, 2016, <https://www.inuitartfoundation.org/iaq-online/29-1-listening-for-sedna>.

Elisapee Ishulutaq's drawing of the same name presents a different perspective than that of Pitsiulak's. Ishulutaq was a renowned graphic artist and printmaker who moved to Panniqtuuq, Nunavut and began a prolific career that continued until the end of her life at age 93. Many of her works focus on issues that affect Inuit, including mental health and environmental issues, and she often mixed long-standing practices with contemporary ideas or problems. Her oil drawing *Climate Change* differs from Pitsiulak's work, in that it does not readily provide the viewer with a sense of grief, sorrow, disappointment, or frustration with climate.¹⁶² The brightly coloured drawing depicts a figure in front of a melting igloo, looking up in awe at a tree. This likely responds to the discovery of new flora, fauna, and plants that are now growing in places where glaciers or other ice has melted. However, Ishulutaq's figure is not in distress upon seeing this tree, rather, the figure seems curious and open to inspecting what this tree could mean for their community. The melting igloo is a reminder that environmental change in the Arctic is dire and requires immediate attention, but the presence of a beautiful tree eases themes of apocalyptic climate anxiety. It presents a uniquely nuanced perspective of the future, looking forward to the possibilities of life while taking in that which is lost without climate action.

I conclude this section with an exploration of Métis artist Christi Belcourt, as she began her practice around biodiversity and Indigenous ecological knowledge in the 1990s and has continued to produce large-scale murals and works to this day. Belcourt is Métis from mânitow sâkahikanihk ('Lac Ste. Anne, Alberta'), but she grew up in Scarborough, Ontario and is based in Southern Ontario. Belcourt's mural paintings are stunning. The artist depicts land, plants (especially flowers), animals, and waterways in her works as a way to advocate for environmental protection. Importantly, Belcourt's work is not an interdisciplinary practice that

162. Inuit Art Foundation, "Elisapee Ishulutaq." Last modified December 11, 2018. <https://www.inuitartfoundation.org/profiles/artist/Elisapee-Ishulutaq>.

brings together sciences and artistic practice. Rather, what informs her knowledge and practice of painting plants is actually Métis cosmologies and wisdom about the medicinal properties in plants. What underlies much of Belcourt's practice is a concern for ways of living with the land that are particular to Indigenous cultures and cosmologies alongside ongoing ecological destruction. She is inspired by beadwork patterns, reproducing beadwork styles through her use of point-painting. While some may consider Belcourt's work a form of pointillism, I argue that her work should not be seen within the context of an art historical movement hailing from Europe. Her inspiration is uniquely Métis beadwork patterns and the Woodland style, and her paintings should be viewed within the lineage and context of Indigenous craft, fine art, and beadwork traditions specific to Métis Peoples. Furthermore, it is not accurate to describe Belcourt's work as simply transferring beadwork patterns into paintings. Belcourt often includes certain plants or symbols for specific reasons.¹⁶³

Belcourt's personal practice began in the 1990s, but she noted that she knew she wanted to be an artist since she was a child. She began with beadwork but expanded into large-scale mural paintings later in her career, especially in the early 2000s. Initially, most critics and curators saw her work as purely decorative, missing Belcourt's intention of emphasizing both the health and the wisdom found in plants, water, and animals.¹⁶⁴ For instance, Belcourt's painting *What the Sturgeon Told Me* (2007) highlights her concern with the health and lifespan of sturgeon, which are threatened with extinction in waterways across Alberta due to the construction of hydroelectric dams.¹⁶⁵ *What the Sturgeon Told Me* (2007) is not a painting of

163. Christi Belcourt, "About: Artist Statement," accessed November 14, 2025, <http://christibelcourt.com/about/>.

164. Christi Belcourt, *Christi Belcourt*, 2nd edition, (Carleton University Art Gallery, Thunder Bay Art Gallery, MacKenzie Art Gallery, and Goose Lane Editions, 2021), 39.

165. Christi Belcourt, 16.

grief, necessarily. It is a beautiful celebration of the fish, painted with bright colours in a beadwork-like pattern. The fish takes centre stage, and the scale of the painting represents the sturgeon's majestic quality. Around the fish are frogs, breathing in the air around the sturgeon, suggesting that frog and sturgeon lives are intertwined — and so too are human lives. Years later in 2014, the AGO commissioned Belcourt to create a large mural painting called *The Wisdom of the Universe* (2014). Similar to her previous beadwork-like patterns, this mural is an awe-inspiring depiction of plants, birds, flowers, and tree branches stemming from one small tree in the centre that stands literally rooted into the ground. The entire painting is really that one small tree, growing and expanding into the interconnected elements. The scene seems to be in a galaxy somewhere, suggested by the dark background and bright stars painted around the edges of the tree. Various colours, the flowers are in full bloom, the leaves are lush, and the branches stand strong, making it hard to look away from the many moving parts out of fear that one might miss an important detail, idea, or piece of wisdom. Belcourt's painting evokes the idea that all of the wisdom that humans may need can be found in the universe, and that universe is made up of an interconnected web of connections between plants, animals, and the diverse ecosystems on Earth. I end this section with Christi Belcourt because her work has an Indigenous feminist undertone focused on connections and relationships, especially with the waterways. It is with these ideas that I consider the relationship between pollution and art from 2012 and beyond.

As I breathe in and out, so too does the earth. My chest heaving as the tides, ebbing and flowing, giving and taking. The water that runs into and through my body has existed on this planet since the beginning of time. The water that runs through our veins in our blood ran through our ancestors' veins, and has existed on this planet since the beginning of time. Water has no flag. It has no allegiance. It holds life in its embrace as a baby floats in a womb, and through it we are connected, all of us, to each other and to everything in this universe. Water is medicine.¹⁶⁶

166. Christi Belcourt, 40.

2.3. Wave 3: Art Meets Pollution (2012 to 2026)

Since 2012 with the emergence of the Idle No More movement, artists, curators, and other arts workers across ‘Canada’ have been challenged, encouraged, or inspired to consider climate change and environmental degradation whether it be through exhibitions, artistic practice, and other cultural programming. Calls for water protection and land defence appeared more frequently post 2012. In conjunction with Idle No More, I argue that there were two pivotal moments in later years that contributed to the Canadian arts sector’s growing interest, interrogation and exploration of environmental issues and colonialism: the COP21 (“Conference of Parties, 2015”) at the United Nations Framework Convention on Climate Change (UNFCCC), and the launching of Truth and Reconciliation Commission (2016). In the rest of this chapter, I describe these two moments in detail. Then, I map out two kinds of responses to these moments in the Canadian arts sphere: 1) institutional responses and 2) grassroots responses. I argue that institutions continue to disregard the relationship between pollution and colonialism, and these institutional shifts were, while necessary, superficial. Instead, it was mostly Black, Indigenous and other racialized artists, curators, and arts professionals working outside of these institutions in grassroot movements, who both publicly supported moments like Idle No More, and outwardly critiqued museums and galleries.

2.3.1 Surges: TRC, COP21, Canada 150

In 2015, the landmark conference of COP21 took place in Paris, France. COP21 (“Conference of Parties, 2015”) at the United Nations Framework Convention on Climate Change (UNFCCC), set up a legally binding international treaty on climate change, now known

as The Paris Agreement.¹⁶⁷ Prime Minister Justin Trudeau’s government signed onto The Paris Agreement in 2015 seemingly embracing climate actions, a stark contrast from the former conservative government led by former Prime Minister Stephen Harper. Robertson notes that during the previous 2009 COP15 was held at the “height of the Harper government’s promotion of Canada’s anti-environmentalist agenda,” and climate activists in Copenhagen, Denmark took note of the country’s constant push to ship and develop crude oil for profit, especially from Alberta. The arts and cultural sphere felt Harper’s pro-oil stance, too. In 2012, the Canadian Museum of Civilization changed their name to the Canadian Museum of History (CMH), instigated by the Canadian government. Shortly after the name-change, the CMH announced a partnership with the Canadian Association of Petroleum Producers (CAAP), which agreed to fund the CMH with \$200,000 a year for five years. The result was that the CMH seemed to turn away from critical research and toward a presentation of heroic myths of nationality.”¹⁶⁸ When Trudeau was first elected in 2015 to a liberal majority government, he not only attended COP21 UNFCCC, but his government fully supported the international treaty and Canada’s compliance with the Paris Agreement.¹⁶⁹ He even outlined five strategies for adhering to the Paris Agreement and made his support for an environmental agenda clear.¹⁷⁰

At the time, Trudeau seemed like a beacon of light for both Indigenous rights and environmental issues. The new liberal government promised to end boil water advisories in Indigenous communities across the country, only to say that the target was unachievable during

167. United Nations Climate Change, “The Paris Agreement,” accessed November 11, 2025, <https://unfccc.int/process-and-meetings/the-paris-agreement>.

168. Kirsty Robertson *Tear Gas Epiphanies: Protest, Culture, Museums*, (Montréal, Canada: McGill-Queen's University Press, 2019), 211.

169. Environment and Climate Change Canada, “The Paris Agreement,” *Government of Canada*. last modified January 6, 2016, <https://www.canada.ca/en/environment-climate-change/services/climate-change/paris-agreement.html>.

170. Ibid.

the 2020 Covid-19 Pandemic, a time when clean water was most needed.¹⁷¹ At the beginning of Trudeau's first term as prime minister, the Truth and Reconciliation Commission (TRC) was concluded in 2016, almost ten years after the Indian Residential Schools Settlement Agreement (IRSSA) in 2007. The TRC was one of five actions implemented as part of the IRSSA. The commission included several published reports, the most notable being *The Calls to Action* (2015) that included 94 calls to action that should be implemented in almost all public institutions or federally and provincially funded organizations in the country. The calls are not legally binding; rather, they operate as a set of standards and suggestions for reconciliation with Indigenous communities particularly with the aftermath of residential schools.

The report also identifies several calls to action for museums and archives to address underlying colonial legacies in their programming and collecting practices. For example, call sixty-eight specifically calls for funding to be allocated for reconciliation programming developed in collaboration with Indigenous peoples during Canada's 150th anniversary of confederations, or Canada150, in 2017. Robertson notes that most of the exhibitions and programming around Canada 150 were "celebratory and parochial."¹⁷² Nunatsiavummiuk art historian and curator Heather Igloliorte similarly reflected, "I question how Canada can justify the heavy price tag for these nation-wide activities while telling First Nations, Métis, and Inuit that it does not have the means to honour its responsibility to provide its citizens with urgent, basic needs like clean drinking water and childhood education."¹⁷³ One of the more radical responses to Canada 150 was *Every. Now. Then. Reframing the Nationhood* (2017), curated by

171. Olivia Stefanovich and Ryan Patrick Jones, "Federal government vows again to end boil water advisories but offers no new target date," *CBC News*, March 10, 2021, <https://www.cbc.ca/news/politics/ottawa-new-website-term-drinking-water-advisories-1.594338>.

172. Robertson, 88.

173. Lianne McTavish, Susan Ashley, Heather Igloliorte, Andrea Terry, and Kirsty Robertson, "Critical Museum Theory/Museum Studies in Canada: A Dialogue," *Acadiensis* 46, no.2. (2017): 225, accessed January 23, 2026, <https://doi.org/10.1353/aca.2017.0029>.

Anique Jordan and Andrew Hunter at the Art Gallery of Ontario (AGO) The exhibition featured a plethora of emerging and established artists, such as Lisa Myers, Esmaa Mohamoud, Meryl McMaster, Norval Morrisseau, Tim Pitsiulak, and Barry Ace, who called into question the possibility of belonging and identity in a nation still deeply affected by colonial policies and racial injustice.¹⁷⁴ The TRC report also outlined several calls demanding renewal, establishment and compliance with treaty rights in the Justice, Education, Royal Proclamation and Covenant of Reconciliation, and Equity for Aboriginal People in the Legal System sections. According to the Yellowhead Institute which tracks the progress of the TRC's Calls to Action, only 9 calls had been completed as of 2019.¹⁷⁵ The Yellowhead Institute website notes that structural racism, paternalism on the part of the Canadian government, and general public disinterest in reconciliation has led to barriers to tending to the Calls to Action.

One call in particular that arguably requires ideological shifts in Canadian society and government more broadly in call 47:

We call upon federal, provincial, territorial, and municipal governments to repudiate concepts used to justify European sovereignty over Indigenous peoples and lands, such as the Doctrine of Discovery and terra nullius, and to reform those laws, government policies, and litigation strategies that continue to rely on such concepts.¹⁷⁶

The idea of terra nullius and the Doctrine of Discovery essentially proposes that land was not owned prior to European assertion of sovereignty.¹⁷⁷ These ideologies have fuelled colonialism in 'Canada.' Quite frankly, there has been little evidence of reform to laws, government policies

174. Andrew Hunter and Anique Jordan, *Every. Now. Then: Reframing Nationhood*. Toronto: Art Gallery of Ontario, 2017.

175. Eva Jewell, and Ian Mosby, "Calls to Action Accountability: A 2023 Status Update on Reconciliation," The Yellowhead Institute, last modified 2023, <https://yellowheadinstitute.org/report/trc/>.

176. Truth and Reconciliation Commission of Canada. *Truth and Reconciliation Commission of Canada: Calls to Action*. Winnipeg, Manitoba: Truth and Reconciliation Commission of Canada, 2015, accessed November 11, 2025, 5, https://ehprnh2mwo3.exactdn.com/wp-content/uploads/2021/01/Calls_to_Action_English2.pdf.

177. "Dismantling the Doctrine of Discovery," Assembly of First Nations, last modified January, 2018, 2, <https://www.afn.ca/wp-content/uploads/2018/02/18-01-22-Dismantling-the-Doctrine-of-Discovery-EN.pdf>.

and litigations that are founded on ideas of terra nullius, seen most notably by the 2019 international calls for solidarity with the Wet'suwet'en and Unist'ot'en as they blocked pipeline expansions on Unist'ot'en territory.¹⁷⁸ To clarify, the Unist'ot'en had been resisting and defending their territories years before the international support in 2019 began. On the Unist'ot'en camp's official website, the campaign is noted to have begun in 1997 when the Delgamuukw Supreme Court case ruled that lands traditionally held by Indigenous nations must legally be acknowledged as such, particularly significant for areas that have been unceded, like Unist'ot'en and Gitksan territories. Since this ruling, the Unist'ot'en organized to prevent expansions and constructions of new pipelines on their territories, through blockades and cabins built in areas of proposed pipelines. The resistance to the pipeline work heightened when the Canadian government sanctioned violent aggression on unarmed land defenders on Monday, January 7, 2019.¹⁷⁹ The next day, international communities expressed disdain when RCMP invaded the territory and officers forcibly removed and arrested Unist'ot'en women who were performing a ceremony.¹⁸⁰ Many around the world, especially in Canada and the United States, called for the immediate release of those who had been arrested and began organizing to support the Unist'ot'en and Wet'suwet'en. Once again in February 2020, Wet'suwet'en matriarchs were arrested, including Freda Huson and Karla Tait. This led to more national solidarity, including the Tyendinaga Mohawk-led actions that blocked the national train service, VIA Rail, from operating.¹⁸¹ During one of the ceremonies performed by women land defenders, they burnt a

178. "Timeline of the Campaign: A Timeline," Unist'ot'en Camp, <https://unistoten.camp/timeline/timeline-of-the-campaign/>.

179. *Reconciliation Is Dead: RCMP Invade Unist'ot'en Territory*, UnistotenCamp, 2020, <https://www.youtube.com/watch?v=EgfVO6U5QuA>.

180. Chantelle Bellrichard, "RCMP arrests another 7 as Wet'suwet'en 'major enforcement' concludes," *CBC News*, February 10, 2020, <https://www.cbc.ca/news/indigenous/rcmp-arrests-unistoten-1.5457916>

181. "Timeline of the Campaign: A Timeline," Unist'ot'en Camp, <https://unistoten.camp/timeline/timeline-of-the-campaign/>.

Canadian flag that read *reconciliation is dead* as RCMP watched. The hypocrisy underlying reconciliation ideologies came to the fore, as Canada's publication of the Truth and Reconciliation Commission (TRC) was juxtaposed by RCMP's invasion of Indigenous land.

2.3.2 Institutional Responses

Institutional responses to environmental issues mostly resulted from the COP21, while programming and exhibitions that dealt with Canada's identity as a settler colonial nation resulted from the TRC and the resulting Canada150 celebrations. In other words, museums and galleries mostly considered pollution and colonialism as separate ideas. In terms of pollution, museums and galleries employed rhetoric revolving around the idioms of the "anthropocene," "climate change," or "climate crisis" in their exhibitions and other programming. This includes the travelling exhibition *Anthropocene* (2019), new climate change-based positions, like the Curator of Climate Change at the Royal Ontario Museum (ROM), and new initiatives, centres, and projects at institutions like *Sustainable Arts and Green Ecosystems* (SAGE) run by the Museum of Vancouver. Following the TRC and Canada150, more institutions developed protocols for collaborating with Indigenous communities on repatriation projects or accessing their community's objects in institutional collections; and more galleries established BIPOC specific residencies, curatorial positions, and inclusion policies. In my research, I struggled to find any recorded, written indication of the relationship between pollution, resource extraction and settler colonialism in annual reports, exhibitions, or other kinds of museum and gallery programming like talks or lectures. There are a few exhibitions that highlight sovereignty and rights in relation to resource extraction on Indigenous land, like *Acts of Resistance* (2020) at the Museum of Vancouver.¹⁸² To my knowledge, this exhibition was the only instance in an

182. "Acts of Resistance," Museum of Vancouver, last modified 2021, <https://museumofvancouver.ca/acts-of-resistance>.

institutional space where, to my knowledge, Indigenous artists and their resistance to the Trans Mountain Expansion Pipeline project were publicly celebrated.

2.3.2.1 The Anthropocene

Featuring works by photographers Edward Burtynsky, Jennifer Baichwal, and Nicholas de Pencier, *The Anthropocene* (2018) was the first exhibition of its kind in Canada that mapped out the effects of waste, pollution, and resource extraction on lands globally. The exhibition was first presented at the Art Gallery of Ontario and then held at the National Gallery of Canada — respectively, the largest provincial and national cultural institutions in Canada.¹⁸³ The exhibition was quite radical and unique for its time.¹⁸⁴ Overall, *The Anthropocene* encouraged visitors to reduce their personal carbon footprint [Figure 3]. It also served as a catalyst for the creation of sustainability, environmental, and interdisciplinary initiatives in museums and galleries. Still, issues of Indigenous land rights and claims were discussed separately from pollution and resource extraction, and *Anthropocene* reflected this divide. Furthermore, Burtynsky, a white male artist, travelled to countries in Africa and Asia to produce photographs of environmental destruction without acknowledging the contexts and communities that he toured.

183. I visited *The Anthropocene* at the AGO in 2019 as part of a field trip for a museum studies class.

184. There were very few exhibitions outside of *The Anthropocene* that directly touched on themes of climate change and pollution, and much less that waded way into the waters of scientific frameworks like the anthropocene. Other exhibitions included *Imaging a Shattering Earth* (2008) at the National Gallery of Canada and *Flora and Fauna: 400 Years of Artists Inspired by Nature* (2014) at the Art Gallery of Alberta.

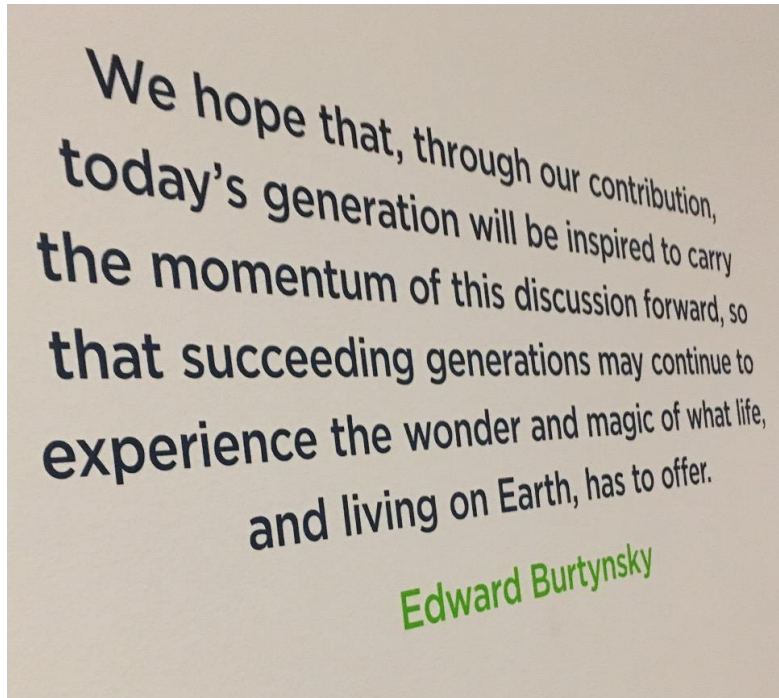


Figure 3: Wall text from *The Anthropocene* exhibition iteration at the Art Gallery Ontario (Tsítkarón:to). 2018. Photo credit: Jasmine Sihra.

In general, the curators and artists chose an aesthetically driven approach to *The Anthropocene*, despite purporting to be interdisciplinary, through the use of augmented reality, virtual reality, and photographs. Burtynsky's photographs look like abstract paintings, making resource extraction oddly beautiful. For example, *Penagh Wall #1, Komodo National Park Indonesia* (2017) bore a striking resemblance to famous Québécois abstract artist Jean Paul Riopelle's painting *Chevreuse II* (c.1954). In fact, there is an entire book dedicated to exploring abstraction in Burtynsky's body of work, called *Abstraction/Extraction* (2024), celebrating the artistic style of abstraction in his photographs. His photographs often include racialized people from countries in the Global South, who appear to blend into the overall imagery, with little to no description of their identities. By presenting these photographs as abstract, the individuals in the photographs are rendered objects, too. In addition to photographs, the exhibition included augmented reality (AR) and virtual reality (VR) scenes of species becoming extinct, wildfires,

and other forms of environmental degradation. The use of AR and other technology also raised questions around energy consumption, waste production and the carbon footprint of the exhibition itself. The exhibition noted that carbon offsets were purchased to compensate for its carbon footprint. Since this exhibition, arts professionals have used the term “anthropocene” as a catch-all term for climate change, pollution, and environmental issues. On one hand, the anthropocene — both the term and the exhibition — has been useful because it has encouraged museums and galleries to consider the role of the Arts sector in mitigating environmental disasters. On the other hand, it still retains a focus on the *anthropos*, or the human, without fully considering power dynamics embedded within supposed human-induced environmental changes. For these reasons, *The Anthropocene* was simultaneously effective in reach *and* limited in scope.

2.3.2.2 Policies, Initiatives, and Centres

Since 2017, museums and galleries across Canada have shifted their operations, including administration, building design, and exhibition practices towards sustainable and eco-friendly approaches. In 2021, the Royal Ontario Museum (ROM) created a position called the Allan and Helaine Shiff Curator of Climate Change, hiring limnologist Dr. Soren Brothers for the role.¹⁸⁵ The ROM also hired Sarah Kamau as the Climate Change Project Coordinator, bringing with her experience organizing around environmental and social justice in Kenya where she was raised.¹⁸⁶ Both positions work across the Natural History and the Art and Culture Departments to facilitate dialogue about climate change within and around the institution, though Brothers’ position is situated within the Natural History Departments. The ROM’s intention of bringing together both the Art and Culture Department and the Natural History Department under their climate change

185. Royal Ontario Museum, “ROM Marks Major Milestone with First Curator of Climate Change,” November 15, 2021, <https://www.rom.on.ca/news-release/rom-marks-major-milestone-first-curator-climate-change>.

186. Royal Ontario Museum, “Museum Tours: Climate History, Climate Hope,” accessed November 11, 2025. <https://www.rom.on.ca/whats-on/events/museum-tours-climate-history-climate-hope-1>.

initiative is obvious in the *Climate History, Climate Hope* tours of the museum's permanent collection, which explore "the history of climate change through objects found in our galleries, and [share] what is being done to stem our current climate crisis and protect our planet."¹⁸⁷

Objects that span centuries, cultures, and species, are brought into a singular tour that purports an interdisciplinary view of climate change rooted in the notion of hope. However, the ROM was not the first to implement these kinds of strategies on an institutional level. In fact, most programming and institutional changes at the ROM have occurred since 2024, making the museum the most recent one to hop onto the trend.

Since 2010, Evergreen (formerly known as Evergreen Brickworks) based in Tsi tkarón:to has worked on creating an environmental centre and has increased their production of climate change-based art initiatives since 2020.¹⁸⁸ From 2024 to 2026, the centre established an Institute for Public Art and Sustainability (IPAS) that aims to work with Indigenous artists and communities, and other racialized communities to create art around Indigenous and marginalized knowledges, cultural, ecological, and industrial histories at Evergreen, creating a resilient and sustainable arts sector.¹⁸⁹ IPAS is also partnered with the Centre for Sustainable Curating (CSC), housed in the Visual Arts Department at Western University and led by Dr. Kirsty Robertson. After years of research on sustainable curating, the CSC was established in 2012 to formally research and collaborate with organizations and artists around museums and environmental justice, teach students sustainable curating and publicize techniques for curating low-waste exhibitions.¹⁹⁰ Led by the Museum of Vancouver (MOV) Director of Collections and Museums,

187. Ibid.

188. Evergreen, "Evergreen Brick Works," accessed November 11, 2025, <https://www.evergreen.ca/projects/evergreen-brick-works/>.

189. Evergreen, "Institute of Public Art and Sustainability," accessed November 11, 2025, <https://www.evergreen.ca/impacts/public-art-at-evergreen/ipas/>.

190. I was a student in the Visual Arts Department, and I can attest to these conversations happening long before 2021.

Viviane Gosselin, *Sustainable Arts and Green Ecosystems* (SAGE), launched in 2023, is a two-year project that works with other arts, design, and theatre organizations to promote the sustainable design of exhibitions or staged events, share resources and materials among partner organizations, and model sustainable exhibitions. SAGE has officially partnered with large institutions in British Columbia, including the Vancouver Art Gallery, Kelowna Museums, Science World, UBC Museum of Anthropology, and the Vancouver Maritime Museum, among several other collaborators. SAGE has published a toolkit for what they call “circular” practices for minimizing waste production.¹⁹¹ The project has also established pledges that other institutions can sign onto that outline responsibilities, goals, and commitments to establishing circular practices on both organizational and project levels.¹⁹²

With the advent of these policies, initiatives, and centres, museums, galleries, and other cultural institutions evidently realize that they must do more than simply hold temporary exhibitions around themes of climate change, like *The Anthropocene*. At the same time, I want to highlight two issues that artists and curators have come up against that are reflected in those institutional changes. First, there is a lack of definition and clarification around terms like the ‘anthropocene,’ ‘sustainability,’ ‘climate change,’ and ‘eco-friendly.’ Their ambiguity and overuse can limit the effectiveness of these approaches. Secondly, the push to change operations has not come from the institutions themselves. Rather, it has been the result of years of activism, lobbying, protests, and acts *outside* of the institution, which suggests that institutions felt public pressure to change. Even with these outside pressures, institutions do not consider how their actions, or lack thereof, reinscribe colonial power dynamics tied to pollution and environmental

191. Museum of Vancouver, “About,” Sustainable Arts and Green Ecosystems Project (SAGE), accessed November 27, 2025, <https://sage-toolkit.com/about/>.

192. Museum of Vancouver, “SAGE Pledge,” Sustainable Arts and Green Ecosystems Project (SAGE), accessed November 27, 2025, <https://sage-toolkit.com/sage-pledge/>.

crisis. At time of writing, I argue that the key barrier preventing institutions from entering into dialogues about their responsibility to both decolonial practices and pollution is their historical and ongoing entanglement with the oil and gas industry across ‘Canada.’

In 2024, the firing of curators and arts workers from Canadian institutions for their support of Palestinian Liberation and critiques of Zionist, colonial expansion in Palestine is a clear indication that oil and gas sponsorship continues to limit the effectiveness of reparative actions like the TRC and other diversity policies. The reality of institutional limitations came to a head when celebrated Anishinaabe curator Wanda Nanibush left her longstanding position as Curator of Indigenous Art at the AGO as a result of her public support for Palestinian Liberation in 2024. Nanibush was one of many arts professionals who lost their jobs when they made known their stance around Palestinian rights and sovereignty.¹⁹³ When museum professionals began to speak out against Israel’s occupation of Gaza, institutions felt immense pressure to silence their staff, even if that meant firing them.¹⁹⁴ The AGO, like the ROM, and other cultural and educational institutions, are sponsored and funded by donors who support the Israeli state’s claims to Palestinian homelands, especially Gaza.¹⁹⁵ The Israeli state is backed by Western governments, especially Canada and the United States, as they seek to both settle on the land and develop it for oil, gas, and other resources,¹⁹⁶ meticulously and violently pushing Palestinians out

193. Jason McBride, “Why Did Canada’s Top Art Gallery Push Out a Visionary Curator?” *The Walrus*, August 28, 2024, <https://thewalrus.ca/why-did-canadas-top-art-gallery-push-out-a-visionary-curator/>.

194. India Das-Brown, “Silent protest at Concordia art gallery following student arrests and director’s dismissal,” *The Link*, November 22, 2024, <https://thelinknewspaper.ca/article/silent-protest-at-concordia-art-gallery-following-student-arrests-and-director-dismissal>.

195. Camille Mary-Sharpe notes that the ROM continues its own ties to the Prospectors and Developers Association of Canada (PDAC), a mining lobby which supports Canadian corporations’ extractive activities around the world, particularly by holding regular conventions at their headquarters in Tsí tkarón:to. At their most recent convention in 2025, the Mining Injustice Solidarity Network (MISN) organized to protest PDAC’s encouragement of the harmful and colonial mining practices in places like Palestine, Sápmi, Sudan, and Wet’suwet’en.

196. Vibhu Mishra, “UN General Assembly demands Israel end ‘unlawful presence’ in Occupied Palestinian Territory,” *UN News*, September 18, 2024, <https://news.un.org/en/story/2024/09/1154496>.

of their homes.¹⁹⁷ In the North American context, both the Canadian and American governments continue to forcefully push Indigenous communities off their land. This has been demonstrated by the boycott of *The Spirit Sings* in 1988, the #NoDAPL movement in 2016, and arrests of Wet'suwet'en matriarchs in 2019. In all these situations, Indigenous land defenders, water protectors, and activists sought to prevent corporations, often backed by governments, from encroaching into their territories. The presence of funding from corporations who support resource extraction globally that pushed Indigenous communities off their lands makes it complicated for institutions to fully grasp the issues that plague BIPOC communities outside of their institutions. It is at this point that I turn to grassroots approaches from artists, curators, and other arts professionals who push institutions to change. Grassroots actions are what enables the connection between pollution and settler-colonialism.

2.3.3 Grassroots Approaches

Since 2016, there has been an abundance of artists and curators exploring the underlying power dynamics of pollution and resource extraction — more than ever before. I call these grassroots approaches to distinguish them from institutional responses because it implies bottom-up revolutionary, radical, and/or social change around pollution and settler-colonialism. As it will be seen in examples below, artists and curators bring critiques around pollution and colonialism to museums and galleries, through collaboration, or conflict. The emergence of Idle No More in 2012 was the catalyst for many artists to engage in some form of protest, creation, and activism against resource extraction on Indigenous territories. As mentioned in my

197. Several articles that highlight this fact:

- Energy Embargo for Palestine, "Pipeline to genocide: BP's oil route to Israel," *Transnational Institute*, September 9, 2024, <https://www.tni.org/en/article/pipeline-to-genocide>.

- Global Witness, "EU risks breaching international law over Israeli gas deal, legal experts say," July 14, 2025, <https://globalwitness.org/en/campaigns/fossil-fuels/eu-risks-breaching-international-law-over-israeli-gas-deal-legal-experts-say/>.

introductory chapter, Idle No More partially arose from the introduction of Bill C-45, a piece of legislation that allowed both public and private organizations to bypass detailed environmental assessments to build on or extract from land, and the Harper government's investment in the Canadian oil and gas industry, both threatened Indigenous sovereignty, rights, and the environment. Kwakwaka'wakw Hereditary chief Beau Dick, a celebrated artist and carver, supported Idle No More by performing a traditional Kwakwaka'wakw copper cutting ceremony at the Victoria, British Columbia legislature in February 2013.¹⁹⁸ Dick's ceremony was meant to highlight the significance of protecting the waterways, the environment, and shame the Canadian government for not fulfilling any of the promises made to support Indigenous communities. Supported by Idle No More organizers, Dick travelled from his home of Alert Bay to Parliament in Victoria and he brought with him a copper shield as a symbolic shaming of the Canadian government. The copper breaking ceremony highlights a fracture in the relations between two parties, as Dick notes:

“The copper is a symbol of justice, truth and balance, and to break one is a threat, a challenge and can be an insult [...] If you break copper on someone and shame them, there should be an apology.”¹⁹⁹

In 2014, Dick performed a second copper breaking ceremony, this time on a 5000 kilometre walk from Vancouver to Parliament Hill in Ottawa, which was called *Awalaskenis II: Journey of Truth and Unity*. On the journey, a large and growing group accompanied Dick as he stopped to meet with many First Nations communities, including the Niitsítapi.²⁰⁰ The group was also joined by *T'aaw*, a copper shield made by Giindajin Haawasti Guujaaw, a famous Haida

198. Warrior Publications, “Beau Dick Copper Cutting Ceremony in Victoria to “Shame” Government,” February 11, 2013, <https://warriorpublications.wordpress.com/2013/02/11/beau-dick-copper-cutting-ceremony-in-victoria-to-shame-government/>.

199. Ibid.

200 The Blackfoot Confederacy, also called Siksikáí'tsitapi.

carver and hereditary leader of the Haida nation. *T'aaw* is symbolic of “respect for the great life giving oolichan [fish] oil in stark contrast to the poison from the Tar Sands.”²⁰¹ The ceremony also included “prayers for families suffering in the Middle East” followed by words that made their shaming of the country clear:

“In breaking this copper we confront the tyranny and oppression
of a government who has forsaken human rights
and turned its back on nature
in the interests of the almighty dollar”

By saying these words during the ceremony, the copper shaming provided an opportunity for the settler state to realize their wrongdoings and repair their damaged relationship with Indigenous communities. Before arriving in Ottawa, Dick requested to see coppers that the CMH had in their collection, to which the museum declined. Dick and his group, including mostly First Nations and Métis activists, land defenders, and water protectors, performed a second shaming ceremony outside of the CMH. Arguably, the TRC had not been published yet, so the standards around access to museum collections were not fully established. However, this kind of resistance to Dick’s reasonable request is an indication of Harper’s stronghold on the CMH and their funding from Canadian Association of Petroleum Producers (CAAP). I argue that Dick’s inclusion of the CMH in his shaming ceremony in 2014 was the most recent moment where an artist implicated Canadian museums in the ongoing resource extraction on Indigenous territories — seen almost thirty years prior during the 1987 boycott of *The Spirit Sings* at the Glenbow.

The Onaman Collective, comprised of Ojibwe artist Isaac Murdoch (Serpent River First Nation) and Michif Christi Belcourt,²⁰² created famous protest banners that would be seen in Idle No More actions and circulated on social media during #NoDAPL and the Wet’suwet’en and

201. Warrior Publications, “Beau Dick Copper Cutting Ceremony in Victoria to “Shame” Government.”

202. The work that Belcourt does with Onaman Collective is different from her personal artwork, so I discuss it separately here instead of with her work above.

Unist’ot’en international actions in 2019. The banners are free and downloadable for grassroots actions.²⁰³ Many of the banners contain these phrases: Water is Life, Unist’ot’en – No Pipelines, and No Pipelines – Keep it in the Ground. Belcourt and Murdoch established the Onaman Collective in October 2014. Here, the collective recognizes the significance of Indigenous sovereignty as it relates to environmental and social justice and how these can be expressed through land-based arts projects, like sacred paint making, murals, storytelling, collaborative arts projects, community art building, and more.²⁰⁴ From 2015 onwards, artists around the country seemed to be waking up to the realities of the disproportionate effects of pollution and resource extraction on BIPOC. In early 2020, approximately 240 artists across Tiohti:áke/Mooniyang (Montréal) penned a letter to express their admonishment of the oil and gas industry and their support for the Unist’ot’en and Wet’suwet’en land claims.²⁰⁵

203. Isaac Murdoch and Christi Belcourt, “Isaac Murdoch and Christi Belcourt Banners,” Onaman Collective, Accessed November 27, 2025, <http://onamancollective.com/murdoch-belcourt-banner-downloads/>.

204. Isaac Murdoch and Christi Belcourt, “What We Do,” Onaman Collective, accessed November 27, 2025, <http://onamancollective.com/what-we-do/>.

205. Stefan Christoff, “Montreal artists stand with Wet’suwet’en Nation and for climate justice,” *Cult MTL*, December 28, 2020, <https://cultmtl.com/2020/12/montreal-musicians-artists-stand-with-wetsuweten-nation-climate-justice-open-letter/>.



Figure 4: The Onaman Collective (Isaac Murdoch and Christi Belcourt). *No Pipelines—Keep it in the Ground*. Poster from <http://onamancollective.com/murdoch-belcourt-banner-downloads/>.

Artists also began to express the complex effects of resource extraction and colonialism on their communities. I am especially interested in artists who, intentionally or not, resist and rethink common imaginings of water seen in earlier works by The Group of Seven, and their contemporaries. Nunatsiavummiuk artist Bronson Jacques’s oil painting diptych *The Warm-Up Shack* (2020) offers a nuanced understanding of the construction of dams in Muskrat Falls, Happy Valley-Goose Bay. Jacques noted that they wanted to express “the guilt and tension felt by those who are forced to earn a living, in ways that destroy their way of life.”²⁰⁶ On one side of the diptych, a man sits happily looking outside the window at the bright blue and green scenery. On the other side, a uniformed labourer sits in a darkly lit composition, solemnly looking away from burning trees, with blackish grey polluted skies outside the window. In communities with

206. Bronson Jacques, *Nagvaaqtavut, What We Found: The INUA Audio Guide*, (Winnipeg, Manitoba, Canada: Winnipeg Art Gallery, 2022), audio-guide, <https://www.wag.ca/inua-online/>.

high unemployment rates, the choices of employment and survival create these conflicting situations — an experience that general policies around sustainability and climate change seem to forget. Another artist who presents similar themes is Sri Lankan artist Rajni Perera. Her science-fiction painting *Flood* (2020) considers nuances of discourse around climate change, but within the context of displaced peoples. *Flood* depicts a figure masked and clad in survival clothing and gear printed with South Asian patterns and colours that are typically seen in 17th century Mughal painting traditions. Drawing on her own immigrant experience, Perera’s goal was to depict how climate change-induced floods displace communities, resulting in refugees, inspiring her mutant-like figures in her paintings. Perera argues that immigrants are able to survive the end of the Anthropocene, or the end of white supremacy, neo-colonization, and late-stage capitalism because they have survived adversity for millennia.²⁰⁷

It is well-known that pollution has resulted in rapid glacial melt in the Arctic, but mainstream discourse often excludes perspectives of communities that share actual experiences of environmental change. Nunavummiuk photographer Robert Kautuk’s painted mural *Sea Ice Break up* (2019), based on his photographic work, makes those effects known. Like many of Kautuk’s works that use drone imagery to capture scenes that are difficult to capture with other cameras. *Sea Ice Break Up* draws attention to the alarming rate in which ice melts by depicting broken ice floating in the sea.²⁰⁸ The broken ice, which would normally fit together in one piece, symbolizes how ice and melt makes it challenging and dangerous for Inuit to travel, hunt, or simply live on the land. One of the most common consequences of pollution on Indigenous

207. Leah Collins, “Making space in outer space: Rajni Perera’s sci-fi odyssey lands at the McMichael,” *CBC Arts*, November 25, 2022, <https://www.cbc.ca/arts/rajni-perera-interview-futures-mcmichael-canadian-art-collection-1.6664359>.

208. Robert Kautuk, *Sea Ice Break Up*, 2019. Mural Onsite Gallery, Toronto, <https://www.inuitartfoundation.org/inuit-art-quarterly/iaq-online/robert-kautuk-s-mural-revealed-at-onsite-gallery>.

nations in ‘Canada’ is a lack of clean drinking water, often due to waterways polluted by various industries and the government’s neglect to properly measure pollution in the airways and waterways on reserves. Cree artist Ruth Cuthand’s installation and beaded tarp *Don’t Breathe, Don’t Drink* (2016) is a sensitive and accurate depiction of the effects of the clean water crisis on the declining health of Indigenous communities. The installation contains several glasses and baby bottles with fake, magnified bacteria and parasites floating in water, placed on top of a beaded, blue plastic tarp. The bacteria and parasites referenced those that were found in the drinking water of the 94 First Nations who were on boil water advisories at the time. The artist used the tarp after seeing it being used by “people in contamination suits,” who were identifying black mold in homes in Attawapiskat in 2011, signalling a housing emergency.²⁰⁹

I have established in this chapter that the Canadian art world has confronted two themes since the 1900s in one way or another: pollution and resource extraction, and colonial legacies and their resulting decolonial critiques. The arts sector has sought to engage with environmental degradation from the Arts, research, and topics that are normally relegated to the Sciences in artistic and cultural contexts. At the same time, arts professionals are constantly coming up against the ongoing colonial legacies in the Canadian art world. This necessitates a holistic perspective that considers the junction of pollution and settler-colonialism in Canadian art, particularly in our current period — that is 2016 onwards. For the rest of this dissertation, I turn to several case studies to trace an emerging movement of artists and curators whose works embody or reflect the experiences and wisdom of BIPOC communities and tease out the link between pollution and settler-colonialism in their interdisciplinary work. These case studies are the result of negotiations between pollution and colonialism that has occurred for decades.

209. Cuthand is likely referring to Mold Contamination Technicians or individuals with similar jobs.

Chapter 3 OIL, GAS, AND WATER TIDES

Definition of Tide: something that fluctuates like the tides of the sea; a large and increasing quantity or volume.²¹⁰

210. Merriam-Webster, "Tide," accessed January 23, 2025, <https://www.merriam-webster.com/dictionary/tide>.

3.1 Anchoring I: Emma, *kesemol* (“It is you that I love”)

My relationship with the land is removed as I get older, but I always played outside when I was young. Various environmental threats are now part of my consciousness; they just kind of create an imaginary division in my mind. I no longer want to be outdoors because there are all the threats of ticks carrying disease, sick animals making it harder to fish and hunt, dangerous and poisonous plants and insects that were not a part of our local ecosystems before, and the spraying of chemicals like pesticides. NB Power [New Brunswick Power Corporation] was notorious for spraying Agent Orange in my homelands. The changing environment due to climate change and climate temperatures has brought illness. And we have this teaching here that if the land is sick, then we are sick. It seems as though our social circumstances, poverty, drug abuse, food insecurity, and high cancer rates are directly related to the status of the Earth.

This is not a fully formed thought in my mind, but when I think about water pollution, I think about the hydro dam that was built outside of my community in the 1950s against our will. This dam has a bridge, the only bridge connecting us to the neighbouring town of Perth. The destruction that the dam has caused, alone — is astronomical. We used to have bountiful salmon populations here. When elders talk about their childhood, they talk about the river, the Wolastaq River and the Tobique River; they always say, "It was crystal clear. I could look into the river and see the bottom, and now I can't anymore." And people used to go fishing all the time. One of our main sources of food was salmon. And you could go down to the river and fish by hand, or like fish easily because you had access to so many fish. And now there are practically none.

The dam caused that population to decline in number, like several other fish species, as well. It also flooded the lower islands that we had below the dam, which took away a lot of vegetation and medicinal plants from us. The chemicals pushed through the hydro dam, along with NB Power spraying pesticides and Agent Orange, caused a lot of erosion along the land closest to the river. My community had to bring in a company to do repairs on it. Maybe, say, like, 10 years ago, they had to do erosion repair because the edge of the land next to the river was getting closer and closer to people's homes, or like it was eroding away close to people's homes. They had to put a stop to that. A lot of people got sick from drinking the water. Some people say that cancer was a rare occurrence here, maybe 80 years ago, and now it's very common for people to die of cancer or cancer-related illnesses.

And I can go back a little bit farther. I am Wolastoqey, which translates to the people of the beautiful, bountiful River. I am in my community in Neqotkuk. I always thought the Neqotkuk meant “where the two rivers meet” because our land base comes to this point, and we are located in between waterways – the Tobique River and the Wolastoqey River. I learnt from one of my elders that Neqotkuk actually means “the crease of your elbow.” And so, my ancestors would have been trying to find terminology to describe what the land naturally does. And they came up with, you know, that our land base sits at the crease of an elbow. And just the fact that our community is being described in relation to the body says something as well, that we are physically connected to this place.²¹¹

211. Emma Hassancahl-Perley, in discussion with the author, February 8, 2024.

Imagine, briefly, how water moves. As the seasons change from colder to warmer weather, water can melt from a frozen state to a flowing state. Water can run quickly down a waterfall. Water can brush rapidly against exposed rocks. Water can gently rock back and forth. Water can flow as a sea, lake, ocean, river, pond, or stream, holding the stories of those who came before us, precious moments in time. Water can give life, promising to support the survival of all who rely on it, now and into the future. If only, we could attune ourselves to water. My ongoing conversations with my friend Hassencahl-Perley helped me to become attuned to the waters surrounding me wherever I go.

This chapter explores the work of Métis artist and anthropologist Zoe Todd, and Tāltān artist Tsēmā Igharas. I analyze how their practices touch on various disciplines in response to the oil and gas industry in ‘Canada’ from their communities. First, I write about Todd’s expression of her own kinship to fish and concern for the health and livelihoods of aquatic animals in the face of pollution and oil spills in the ‘Albertan’ oil sands. Todd depicts several fish and aquatic creatures in various works to honour her relationships to and lessons from fish and other interlocutors. I explore how Todd carefully asserts the importance of relationships with watery creatures and how human lives are intertwined with the health of the waterways and water animals, encouraging us to realize relations beyond colonial violence and extraction. In my Indigenous feminist analysis of Todd’s work, I consider how their anthropology background and inspiration from physics informs her artwork. I construct this combination of disciplines and attention to non-human kin as a form of confluence. These fish include the bull trout, namewak (“sturgeon”), the brook stickleback, the spottail shiner, and the crayfish. After, I discuss Igharas’s three-year long multidisciplinary project *Black Gold* (2019-2022), an online exhibition that explores the idea that fossil fuels are part of human bodies through shared geological

regions. In *Black Gold*, confluence is clear in Igharas's consideration of rock strata, or rock layers, a term typically used in the field of geography, as well as in her development of relations with mined materials. Each geological strata represents a layer of meaning of relationships to places, peoples, dirt, and other entities that arise from the movement of mined materials across 'Canada.' In my analysis of this work, I dive into Igharas's many years of research and artistic work about different metals and orebodies like copper and obsidian; mined substances like bitumen, a semi-solid viscous form of petroleum; and her experience working as a scientist field assistant on mines on Tāltān Territories.²¹² I explore how Igharas offers a metaphor for mining deeper into how humans have always been bound to fossil fuels as beings, now through the process of resource extraction. At the end of this chapter, I compare and contrast both Todd's and Igharas's engagement with materials and other beings in the process of artmaking, and the underlying values of water as a contrast to extractivist organizations of relationships.

3.2 Zoe Todd's Fishy Kinship

I want folks to see how charismatic and exciting and special prairie freshwater fish are. From the smallest stickleback or sculpin to the biggest lunger pike. They all have important things to teach us.²¹³

Zoe Todd is Otipemisiwak ('Red River Métis'), originally from Amiskwaciy-wāskahikan ('beaver hills house' in Cree), Treaty Six Territory ('Edmonton, Alberta'), and is currently employed in the Department of Indigenous Studies at Simon Fraser University. Drawing on her own experiences with fish from her Métis upbringing and anthropological research, Todd often

212. James Heydon, "Indigenous environmental victimisation in the Canadian oil sands." In *Routledge International Handbook of Green Criminology*, edited by Nigel South and Avi Brisman, N.p.: Routledge: Taylor and Francis Group, 2020., 333. <https://www.routledge.com/Routledge-International-Handbook-of-Green-Criminology/Brisman-South/p/book/9781032336404>.

213. Zoe Todd, in discussion with the author, January 7, 2025.

writes about her watery kinship to fish and the threats posed by extractive industries on aquatic lives. Throughout her work, Todd pays close attention to the lives and movements of aquatic animals in Amiskwaciy-wâskahikan and rivers around this area, namely Kisiskâciwan-sîpî (“swift flowing river” in Cree), the ‘North Saskatchewan River.’²¹⁴ From this local perspective, and with care and respect for the fish in her home, Todd carefully asserts the importance of relationships with these watery creatures through her fish drawings.

In my interview with Todd, they told me that they first began drawing fish with her iPad on an application called “Paper,” but later switched to watercolours and other graphic media. She first drew a northern pike (jackfish) and posted it on Twitter,²¹⁵ eventually spawning a series of fish that they posted under the hashtag #FishFriday. They explained that this series was a riff on Catholic practices as an homage to their Catholic Métis ancestors. A long-standing religious practice, Catholics will eat fish on Fridays or during Christmas Eve to abstain from eating meat. Fish have extremely symbolic importance in Catholicism, as Jesus is depicted as handing out a miraculous abundance of fish and bread to his disciples during moments of preaching.²¹⁶ At the same time, Todd began drawing fish to honor the teachings that interlocutors shared with her while she was on a research trip living in Paulatuq (‘place where one finds soot of coal’), Northwest Territories. She had caught and eaten fish,²¹⁷ and decided to draw them to accompany her writing, drawing singayuriaq (‘lake trout’), iqalukpik (‘arctic char’) and humpback whitefish in particular. This section explores drawings like these, focusing on works from Todd’s home

214. I learnt the meanings of these places and the Cree names from work done by Elder Jerry Saddleback: Jerry Saddleback, “First Names Matter,” Edmonton Commonwealth Walkway, accessed November 27, 2025, <https://www.edmontoncommonwealthwalkway.com/land/first-names-matter>.

215. At time of writing, Twitter is called X after being acquired by El*n M*sk.

216. I am very grateful to my friend, Alexandra Argitis, for sharing these insights into her own family’s history and practice, and research she did during her master’s research. Alexandra’s mother is a Deacon at her church and brought me a wealth of knowledge about fish feasts on Fridays and the symbolic importance of fish.

217. Todd clarifies that the fish were caught and eaten with appropriate licenses and permissions.

community of Amiskwaciwâskahikan. Most cite and discuss Todd's work within the fields of Indigenous studies, anthropology, or even geology, but few have yet to explore the artist's interdisciplinary negotiations in her drawings of fish. By analyzing their artistic practice from the lens of confluence, I hope to showcase the knowledge and research that Todd shares about the effects of pollution on these watery animals in her community of Amiskwaciwâskahikan.

An Indigenous feminist, Todd explains her relationship with fish as “fishy refraction,” that is a “[...]co-constitutive engagement between fish, water, air, and humans that occurs at the air water interface.”²¹⁸ For Todd, fish have agency and they can challenge humans in how they perceive us, stating: “The way fish see us up here in our ‘air-world’ is refracted by the water, and the way we see fish is also refracted by the water.”²¹⁹ Visibility of fish is distorted by the water and perception is challenged. Avid fishers know very well that understanding refraction is key to making a catch.²²⁰ Water always forces the fisher to attune themselves to the movement and behaviour of the fish. Todd extrapolates the idea of refraction from the field of physics. In water bodies, refraction occurs when a wave of sound or light changes as it passes from one medium to the next — from air to water and back.²²¹ As we look at the fish from above water, light becomes refracted and the appearance and location of the fish becomes distorted. Similarly, when fish look back at us from the water, our own appearance and location is distorted through light refraction. In this way, refraction creates a condition where one must embrace complexity, care,

218. Caroline Picard, and Zoe Todd, “The Future is Elastic (But it Depends): An Interview with Zoe Todd,” *Bad At Sports*, August 2016, <https://badatsports.com/2016/the-future-is-elastic-but-it-depends-an-interview-with-zoe-todd/>.

219. Zoe Todd, "Refracting the State Through Human-Fish Relations: Fishing, Indigenous Legal Orders and Colonialism in North/Western Canada," *DIES: Decolonization, Indigeneity, Education, and Society* 7, no. 1 (2018): 64, <https://doi.org/https://jps.library.utoronto.ca/index.php/des/article/view/30393>.

220. *Ibid.*

221. Encyclopaedia Britannica, “Refraction,” accessed November 27, 2025, <https://www.britannica.com/science/refraction>.

and skill to navigate the parameters of the human/fish relationship. Learning from Paulatuqmiut,²²² Todd writes about how they attune themselves to fish to work with refraction.²²³ Todd learnt that Inuvialuit in Paulatuq have both resisted and worked within Canadian laws and regulations that control human-fish relationships. The community manifested and applied “refraction of colonial orders” in order to teach about building, tending to care, and ongoing legal-ethical relationships to fish.²²⁴ Todd argues that human-fish relations can act as a “micro-site of engagement,” showing how to disrupt the state’s control over how people interact with lands, waters, and the atmosphere. Importantly, Todd highlights the contradictory nature of fish, as fish and fishing have contributed to the colonial incursions across ‘Canada.’ For example, colonial agents often relied on fish for sustenance during the creation of the Hudson’s Bay Company in the Circumpolar North.²²⁵ Fishy refraction necessarily encompasses a contradiction, as the history of fish carries both stories of resisting and fueling settler-colonialism.

As Todd indicates, human-fish relations entrench a responsibility to both waterways and fish.²²⁶ Thinking about kinship with fish is especially important as “[...] water is a site of, and is used as a manifestation of, settler-colonial violence, in Canada.”²²⁷ This explicit acknowledgement of how water shapes relationships — in Todd’s case, with fish — is reminiscent of Indigenous feminist ontologies of waterways and relational thinking. Of course, this is no surprise because Todd sees her work aligned with Indigenous feminisms. Considering

222. Paulatuq people.

223. *Ibid.*, 60

224. Todd, "Refracting the State Through Human-Fish Relations: Fishing, Indigenous Legal Orders and Colonialism in North/Western Canada," 69.

225. Todd, "Refracting the State Through Human-Fish Relations: Fishing, Indigenous Legal Orders and Colonialism in North/Western Canada," 60.

226. *Ibid.*, 61.

227. *Ibid.*

Barker’s theory of confluence, I am particularly interested in the way Todd brings together her anthropology research, Métis teachings, and artistic practice as a way to confront pollution and protect the waterways. Her kinship with fish demonstrates an interdependency between humans and aquatic animals through an interdisciplinary lens, and she also relies on Métis cosmologies and values around interdependency. She noted in our interview that her understanding of kinship from Métis cosmologies comes from a lesson from her father and his grandparents that the “world was made of who we are related to and how [we are related to others].” This has also come up in Todd’s use of the concept “Indigenous legal orders,” or the everyday responsibilities that uphold collective well-being. Law scholar Val Napoleon (Saulteaux First Nation) initially popularized this term to differentiate between Indigenous forms of governance and colonial ones that enforce justice through courts or juries. Métis legal orders, or governance systems, require that Todd act in an ethical way and acknowledge that her actions have physical and spiritual implications. Todd explains this best:

[...] it’s kind of always being aware that other Métis folks are paying attention to how I carry myself — and so are my ancestors. And they’ll tell me if I’m acting out of line! This also applies to fish in that the fish are paying attention to humans, too, and are aware of what we are up to. Are aware of whether we are being good relatives, good neighbours, being mindful of not destroying habitats, polluting watersheds. A lot of my drive to help stop destruction of prairie watersheds comes from my personal understanding that my responsibilities are not just to humans who are alive today, but also to fish who are alive today and to the fish and all ancestors who came before.²²⁸

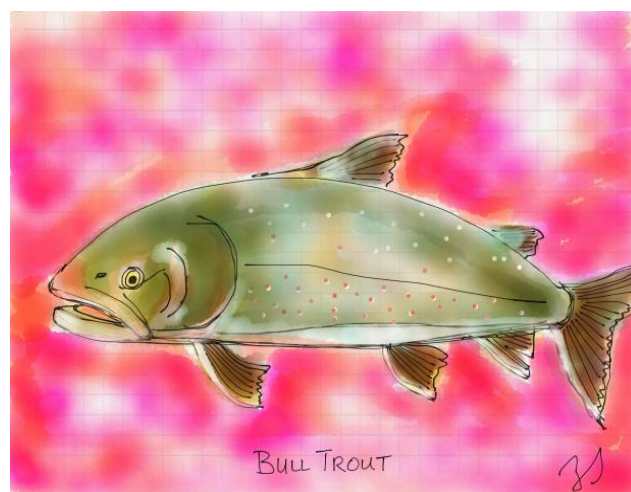
Todd’s application of Métis kinship and legal orders can be seen in stark contrast to the scientific case study formula, where places and ideas are often analysed separately.²²⁹ And yet, Todd is able to negotiate these differences between fields, bringing physics and law into their notion of fishy refraction to foreground relationships to people and places in her research and

228 Zoe Todd, in discussion with author, January 7, 2025.

229. Am Kanngieser, and Zoe Todd, “From Environmental Case Study to Environmental Kin Study,” *History and Theory* 59, no. 3 (September 2020): 390, <https://doi.org/10.1111/hith.12166>.

drawings. These unique ways of knowing about other beings and the environment co-exist and complement each other, and the complex relations and understandings of water embedded in these ways of knowing come to the surface through the artist's drawings. To highlight relationships to place, particularly Todd's own home, I will analyze three artworks and the kinds of relationships and ideas that could be represented but are not *readily* apparent. Each work tells a different story about Todd's kinship with fish in Amiskwaciwâskahikan, and I draw on research from various disciplines to tease them out. I attune myself to each fish and explore what Todd's interpretation of the watery creature can tell me, as fish "[...] give us life through stories and relationships through time and space."²³⁰ In one section, I focus on the *bull trout* and *namewak* (plural for "sturgeon" in Cree), as species threatened by water pollution and over-extraction. In another section, I analyze the *brook stickleback* and the *spottail shiner*, freshwater fish, to disrupt colonial ideas around freshwater that verge on extraction or abundance. In the final section, I explore the crayfish, an invasive species in Amiskwaciwâskahikan, tracking the trajectory of invasive species as related to the arrival of settler-colonialism in 'Canada.'

3.2.1 Threatened: The Bull Trout & "Namewak"



230. Picard and Todd.

Figure: Zoe Todd, bull trout (for Wayne). 2017. Watercolour, pen, and ink. Taken from the artist's website: <https://fishphilosophy.org/>. All rights of image reserved to the artist.

I can faintly see a grid hiding behind a pink-fuchsia-purple tie-dye background, but the fish takes centre stage [Figure 5]. Such an intense mix of colours would surely hinder my viewing of the bull trout in the fore, but their detailed fins and greenish-brownish-orange colouring prove otherwise. What really stands out, though, is their facial expression — mouth agape and eyes wide. Granted, many salmonids tend to appear this way, but Todd's rendering animates the fish, giving them a personality. I wonder if Todd knows this bull trout. And she very well might; the bull trout is the official fish of her home province of 'Alberta,' running along several watersheds and rivers, including the Kisiskâciwan-sîpî. It also happens to be a threatened species in 'Alberta.'

According to the Government of Alberta website, bull trout are naturally found in all river systems. In the last twenty years, the population of bull trout has significantly declined, to the point where they are now classified as threatened under the *Alberta Wildlife Act*.²³¹ Any healthy or recovered populations of bull trout are typically found in state-protected areas like national or provincial parks. The bull trout are vulnerable to increasingly hot summers and extreme weather events, like floods, heat waves, and droughts — all consequences of pollution and environmental degradation.²³² However, the real threats to the health and well-being of the bull trout are heavy land use and development, particularly from forestry, agriculture, oil and gas, and urbanization.²³³ 'Alberta' is notorious for having a high concentration of oil and gas activity, especially from the Tar Sands. Another fish, the namewak, swam happily in large

231. "Bull Trout," Government of Alberta, <https://www.alberta.ca/bull-trout.aspx#:~:text=Bull%20trout%20are%20cold%2Dwater,are%20caught%20must%20be%20released.>

232. Ibid.

233. "Bull Trout FSI," Government of Alberta, <https://www.alberta.ca/bull-trout-fsi.aspx>.

populations across the Kisiskâciwan-sîpî and other rivers, but their population has dwindled after approximately one-hundred thirty years of mining, oil and gas exploration, extraction, municipal development, pollution, and extensive commercial harvesting.²³⁴ As of 2017, about seven hundred to two-thousand catchable fish existed in the river. The bull trout, like many aquatic animals, have been subject to water pollution from oil and gas or other energy companies who often do not perform sufficient environmental assessments to understand the impact of their activities on the well-being of fish and water animals in surrounding waterways.²³⁵ In 2015, Husky Energy Inc, a company that develops land in Alberta for extractive industries, spilled 200 000 litres of oil mixed with diluents into Kisiskâciwan-sîpî.²³⁶ Horrified, Todd recalls looking at pictures online of the dead beavers, heron, and other animals floating in the river, and hearing about members of the James Smith Cree Nation who had to enact emergency drinking-water measures as they witnessed birds, frogs, and other wildlife disappear from their home.²³⁷ The oil spill, caused by capitalist, extractivist activity, polluted the water, disrupting and harming the lives of a nearby human community, as well as the more-than-human beings in the river. Considering that boil-water advisories continue to exist at time of writing, it's clear that resource extraction exacerbates issues surrounding Indigenous communities' health, too.

Todd's choice to draw this bull trout hints at many issues and stories concerning the conditions of these watery animals in Amiskwaciy-wâskahikan and throughout Alberta. Her use of colours that do not resemble the blue-green waters where bull trout would normally be found bring us further into the drawing. For me, it makes me wonder who the fish is, and why Todd

234. Zoe Todd, "Decolonial dreams: unsettling the academy through Namewak," in *The New [New] Corpse*, ed. Caroline Picard, (Chicago: Green Lantern Press, 2015), 108.

235. Ibid.

236. Zoe Todd, "Fish, Kin, and Hope: Tending to Water Violations in Amiskwaciwâskahikan and Treaty Six Territory," *Afterall: A Journal of Art, Context and Enquiry* 43 (March 2017): 102. <https://doi.org/10.1086/692559>.

237. Todd, "Fish, Kin, and Hope," 103.

chose this particular fish to draw. In some ways, Todd might be drawing the bull trout to capture the beauty of the fish and the importance of its life, in not knowing when or if they could simply disappear. I argue that Todd chose to highlight the bull trout as an homage, to raise awareness of the threats to the lives of bull trout and other aquatic creatures. Due to the exhaustive list of First Nations and other Indigenous communities who are facing spills of toxic substances in their local waterways, it is safe to say that the ‘Canadian’ federal and provincial governments do not actively ensure that extractive industries follow appropriate environmental assessments or community rights, treaties, or guidelines. Instead, there seems to be long-standing support for extractive industries and a desire to ensure that they profit off unsustainable forms of energy. By focusing on this endangered species, Todd gestures towards the fact that the health and well-being of fish are intimately connected to the health and well-being of all who rely on the waterways, that is, all of us. This is especially important within broader environmental discourse that centres human survival and futurity as a way to advocate for the protection of the planet. I further argue that Todd decentres the emphasis on the human, shifting towards an Indigenous feminist approach that calls for the protection of all forms of life.

While Todd’s depiction of the bull trout hints at the disastrous consequences of mining, she does not antagonize those mined elements that are turned into lucrative resources of oil and gas. There must be a distinction between the capitalist use of the elements for-profit, and the actual elemental materials that are being mined. Failing to make this distinction results in a kind of binary between dirty substances and supposed pure or clean one, which could reproduce colonial ideologies that distance human life from the environment. Todd explains that when she initially learnt about the Husky Energy Inc. oil-spill, she was horrified by the presence of oil in the river. Learning from white settler scholar Heather Davis and Sisseton Oyate Wahpeton

scholar Kim TallBear, Todd challenged herself to think of the oil as kin. She realized that oil, gas, and fossil fuels are not horrifying in and of themselves. What is horrific is the ways that they are weaponised by extractive industries which “[...] turn them into settler- colonial- industrial- capitalist contaminants and pollutants.”²³⁸ Historically, the Dene peoples once used bituminous tar that occurred naturally along the Athabasca River to patch their canoes. Examples like these show that these materials are not inherently violent or dangerous.²³⁹ By tending to oil, gas, and other fossil fuels as kin, Todd de-weaponizes those substances instead of simply viewing them as pollutants. In other words, it is corporate and political bodies that enact violence on the waterways and fossil fuels themselves through extraction. The threats to the lives of bull trout is the extractivist, colonial logic. Protection of fish-kin means renewing or developing relationships with all kinds of beings, including bituminous tar.

3.2.1 Freshwater: The Brook Stickleback and The Spottail Shiner



Figure 6: Zoe Todd, *brook stickleback*. 2021. Digital rendering. Taken from the artist's website: <https://fishphilosophy.org/>. All rights of image reserved to the artist.

The *brook stickleback* [Figure 6] and the *spottail shiner* [Figure 7] are small freshwater fish — that is they exist in freshwater, not saltwater . The way Todd has drawn them, they seem

238. Todd, “Fish, Kin, and Hope,” 103.

239. Todd, “Fish, Kin, and Hope,” 103.

similar in colour, but in reality the spottail shiner is more of a bluish-grey and the brook stickleback is known to be more of an olive colour.²⁴⁰ The spottail shiner is from the family cyprinidae of the order cypriniformes.²⁴¹ Also known as minnows, spottail shiners rarely grow past fifteen centimetres.²⁴² They are abundant across ‘Alberta,’ especially east of the Rocky Mountains. Brook sticklebacks are particularly plentiful in the Kisiskâciwan-sîpî and require vegetation to build their nests. They tend to occupy areas where minnows, like the spottail shiner, exist.²⁴³ These fish are from the family gasterosteidae of the order gastrosteiformes, and they can be found in small clear streams, bogs, beaver ponds, and lakes.²⁴⁴ In Todd’s drawings, the spottail shiner seems as though it is in freshwater, lying against a clear blue background, but the brook stickleback is different. This fish lays against wisps of red and pockets of green, maybe algae. Regardless of what Todd seeks to represent here, it feels distorted and dark. It is reminiscent of Todd’s notion of fishy refraction, where something does not appear as one might expect. Here, the brook stickleback is the only element in the drawing that I can clearly make out. So, I ask, what stories are refracted in the water and hide within the fish? Following Todd’s distortions in the drawings, I seek to distort conversations around freshwater and uncover the hidden critiques of settler-colonial ideologies in *brook stickleback*.

240. Joseph Nelson, and Martin J. Paetz, *The Fishes of Alberta*, (Edmonton: The University of Alberta Press, 1992), 115; 319.

241. Nelson and Paetz, 115.

242. Ibid.

243. Ibid., 162.

244. Ibid., 321



Figure 7: Zoe Todd, *spottail shiner*. 2020. Digital rendering. Taken from Todd's Instagram: <https://www.instagram.com/p/CIHD829pQLa/?igshid=YmMyMTA2M2Y=>. All rights reserved to the artist.

According to the U.S. Geological Survey, less than 3% of the Earth's water is freshwater; 68% of this is inaccessible in icecaps and glaciers, while 38% is found in ground water, and 0.3% is found in the surface water of lakes, rivers, and swamps.²⁴⁵ 'Canada' has access to about 20% of the Earth's surface freshwater and 7% of the world's renewable water flow.²⁴⁶ In most governmental statistics and facts, freshwater, and water in general, is almost always discussed as a resource to be exploited. For example, the National Geographic writes, "[...]with this stunning realization comes a recognition that we have to utilize this resource very wisely[...]."²⁴⁷ This perspective of water as a resource is echoed in governmental water management systems in settler-colonial societies, like 'Canada.' White settler scholar Karen Fisher and Māori/Pākehā/Lebanese scholar Meg Parsons explain that water systems in settler-colonial

245. "Earth's Freshwater," National Geographic, <https://education.nationalgeographic.org/resource/earths-fresh-water>.

246. "Environment," Statistics Canada, last modified January 17, 2018. <https://www150.statcan.gc.ca/n1/pub/11-402-x/2011000/chap/env/env-eng.htm>.

247. "Earth's Freshwater," National Geographic, <https://education.nationalgeographic.org/resource/earths-fresh-water>.

societies are part of the context of ongoing colonialism in those areas.²⁴⁸ They further argue that Indigenous communities and activists seek to develop relationships with water beyond its exploitation as a resource, drawing on their own communities' knowledges that consider water to be a living thing or person.²⁴⁹ However, Indigenous peoples are often excluded from "state-controlled water regimes," even though they seek to be involved in the protection and maintenance of water to ensure the health and well-being of all. For example, Whyte writes that the Standing Rock Sioux Tribe were not taken seriously or consulted in the environmental assessments of the impact the Dakota Access Pipeline would have on the waterways, and that the assessment itself was rushed. This was ultimately one of the many reasons why mass protests against the pipeline manifested in the form of #NoDAPL ("No Dakota Access Pipeline").²⁵⁰ As a result of the exclusion of Indigenous leadership from water management, these systems do not consider Indigenous communities' oral histories or historical relationships to the water in their home environments. White settler scholars Lauren Butterly and Benjamin J. Richardson held a workshop around freshwater and saltwater management with Indigenous and non-Indigenous participants from 'Australia,' 'Canada,' and Aotearoa ('New Zealand'). These workshops concluded that governmental interventions in freshwater/saltwater management diminish Indigenous connections to the environment.²⁵¹ Indigenous feminist ontologies consider water a relative, an entity to be engaged with respectfully. Water constitutes relationality between

248. Meg Parsons, and Karen Fisher, "Indigenous peoples and transformations in freshwater governance and management," *Current Opinion in Environmental Sustainability*, vol. 44, 2020: 124, <https://doi.org/10.1016/j.cosust.2020.03.006>.

249. *Ibid.*, 125.

250. Kyle Powys Whyte, "The Dakota Access Pipeline, Environmental Injustice, and U.S. Colonialism," *An International Journal of Indigenous Literature, Arts, & Humanities* 19, no. 1 (2017): 156, <https://ssrn.com/abstract=2925513>.

251. Lauren Butterly, and Benjamin J. Richardson, "Indigenous Peoples and Saltwater/Freshwater Governance," *Indigenous Law Bulletin* 8, no. 26 (September 2017): 4, <https://doi.org/10.3316/ielapa.462506056796637>.

humans and other animals. Todd's drawing of the brook stickleback reminds me of the need to interrogate colonial logics within water management systems. This can ensure that water management systems do not exclude Indigenous leaders and that the wellbeing of their own communities is centred.

Freshwater is becoming scarce globally. Simultaneously, waterways continue to be in danger of contamination, as seen with the Husky Energy Inc. oil spill. It is no wonder that many are concerned about the preservation of freshwater and how to use it sustainably. Governments are researching and implementing practices of supposed 'sustainable use' of water, but I argue that these policies or initiatives continue to arise from settler-colonial ideologies and practices of extraction or exploitation. In this way, these policies are not sustainable and may continue to focus on the use and consumption of water as a resource. In *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and Teachings of Plants* (2013), Potawatomi botanist Robin Wall Kimmerer tells a story of Carol Crowe, an Algonquin ecologist, who works around sustainability:

She [Carole Crowe] told the story of requesting funding from her tribal council to attend the conference. They asked her, "What is this all about, this notion of sustainability? What are they talking about?" She gave them a summary of the standard definitions of sustainable development [...] They were quiet for a while, considering. Finally, one elder said, 'This sustainable development sounds to me like they just want to be able to keep on taking like they always have. It's always about taking. You go there and tell them that in our way, our first thoughts are not 'What can we take?' but 'What can we give to Mother Earth?' That's how it's supposed to be.²⁵²

As Crowe's elders highlight, there may be grave consequences to sustainability policies that do not see that water is life and always implicates human relationships with more-than-human

252. Robin Wall Kimmerer, *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants*, (Minnesota: Milkweed Edition, 2013), 190.

worlds. The warning from Crowe’s elders is that sustainability can reproduce an extractivist mentality that is not at all sustainable.

3.2.2 Invasive: Crayfish



Figure 8: Zoe Todd, crayfish, for Theresa. 2022. Digital rendering. Taken from the artist's website: <https://fishphilosophy.org/>. All rights of image reserved to the artist.

Todd’s drawing of this crayfish is funny [Figure 4]. Set against a bright pink background, the crayfish poses above the phrase “I’m *cray-ving* Indigenous sovereignty” — pun intended. Of course, it is silly, and I imagine that the humour is completely intentional. Todd has written that fish are humorous saying:

Well, fish have agency. And so, fish can tease us. I like to think of fish as having rich lives far beyond what we’ve been taught, in euro-western narratives and thought, to imagine for them. So, I think that fish can provoke and challenge us, and one tool through which to do that is humour. And, as someone from the prairies, I imagine them to have the good-natured sense of humour that I grew up with in my large Métis family. Trust me, I’ve learnt many lessons through teasing. And it makes me a more accountable person today.²⁵³

Taking together the drawing and this quote, I wonder about the lesson Todd is attempting to teach by showcasing the humor of the crayfish. So far, she has offered lessons about endangered

253. Zoe Todd, in discussion with the author, January 7, 2025.

species and freshwater. Crayfish are indeed an invasive species in ‘Alberta’ and have become a “widespread threat” to freshwater biodiversity in waterways across the province.²⁵⁴ What is the relationship between Indigenous sovereignty and invasive species here? Why would Todd use the image of the crayfish, an invasive species in her home province, to offer a lesson on Indigenous sovereignty? The answers lie in unsettling the very notion of ‘invasive species.’

As of 2022, crayfish are considered an aquatic invasive species of concern, under provincial regulations in ‘Alberta.’²⁵⁵ Species become invasive when “they become established in a novel environment and cause negative ecological, economic, or human-health impacts.”²⁵⁶ Invasive species, like crayfish, are the second largest threat to freshwater biodiversity globally.²⁵⁷ Crayfish are particularly difficult to manage because they are highly adaptive, omnivorous, and can typically thrive in a wide variety of environments or habitats.²⁵⁸ Invasive crayfish can negatively affect “native” crayfish populations because of how they transmit diseases, destroy habitats by uprooting and grazing plants, disrupt food chains, and alter ecosystem functions.²⁵⁹ Scientific and anthropological studies attempt to measure or calculate the risks and threats associated with the arrival of the crayfish in their new environments. The need to measure the risks and understand the threats of the crayfish is underscored by the issue of climate change and environmental issues. Researchers typically tackle issues of invasive species by focusing on

254. Northern Crayfish are native to Alberta, but they, too, have been known to be expanding much more than typical.

255. Taylor Simmons, “Northern crayfish continues its Alberta invasion, this time, in mountain parks,” *CBC News: Calgary*, August 24, 2022, [https://www.cbc.ca/news/canada/calgary/northern-crayfish-mountain-national-parks-1.6561475#:~:text=Parks%20Canada\)-,Under%20provincial%20regulations%2C%20northern%20crayfish%20are%20considered%20an%20](https://www.cbc.ca/news/canada/calgary/northern-crayfish-mountain-national-parks-1.6561475#:~:text=Parks%20Canada)-,Under%20provincial%20regulations%2C%20northern%20crayfish%20are%20considered%20an%20)

256. Victoria A. Van Mierlo, Stephanie J. Green, Craig A. Emmerton, Mina Nasr, and Cristina Buendia, “Occupancy of invasive Northern Crayfish (*Faxonius virilis*) in northern streams is associated primarily with water temperature,” *Freshwater Science* 41, no. 4 (October 6, 2022): 650, <https://doi.org/10.1086/722576>.

257. Norah M. Brown, and Thomas W. Therriault, “The hidden risk of keystone invaders in Canada: a case study using nonindigenous crayfish,” *Canadian Journal of Fisheries and Aquatic Sciences* 79, no. 9 (September 2022): 1479. <https://doi.org/10.1139/cjfas-2021-0245>.

258. *Ibid.*

259. *Ibid.*, 1480.

protecting biodiversity, ecological functioning, and minimizing the impacts of these species on society.²⁶⁰ What is implied in this research is that invasive species are inherently bad for the new environment they enter. However, the arrival of species to new environments does not mean they automatically become invasive.²⁶¹ Based on Indigenous feminist praxis, I believe that seeing species as invasive might be an extension of settler-colonial logic and does not consider potential relationships with these new crayfish, or the importance of understanding their needs in a new place. In other words, the strategies to mitigate the effects of crayfish on ecosystems might arise from a place of their own demise, instead of tending to new kin. Todd's fishy refraction teaches that we must challenge ideas of invasion if we are to truly engage with invasive species and understand how to protect biodiversity, including the newcomers.

Western scientific research tends to frame the arrival of a species to a new environment as alien or exotic. If we take seriously the importance of relational thinking from Indigenous feminisms, perhaps the framing could shift away from an alienation towards connection. Anishinaabe scholar Nicholas J. Reo (Citizen of the Sault Ste. Marie Tribe of Chippewa Indians) and white settler scholar Laura A. Odgen conducted a study with the Sault Ste. Marie Tribe of Chippewa Indians to consider how Indigenous knowledges could rethink the idea of native and invasive species.²⁶² Reo and Odgen sought to understand how this community views invasive species from an Anishinaabe perspective. They note that the tribe sees value in both Western science and Indigenous knowledges as two ways of knowing that complement each other in addressing environmental issues. Therefore, both knowledge systems are important in addressing new species in new environments. Within the tribe's Anishinaabe perspective, they work from a

260. Nicholas J. Reo, and Laura A. Odgen, "Anishnaabe Aki: an indigenous perspective on the global threat of invasive species," *Sustainability Science* 13 (2018): 1443, <https://doi.org/10.1007/s11625-018-0571-4>.

261. Ibid.

262. Reo and Odgen, 1443.

notion of *aki* (“Earth” in Anishinaabemowin), which “[...]holds land as sacred and as embodiment of creation, as are all living beings, such as plants and animals, as well as water, stones, and supernatural elements[...].”²⁶³ For members of the Sault Ste. Marie Tribe, plants and animals are considered people, and it is the responsibility of humans to understand new species.²⁶⁴ Notably, new species are not seen as invasive or inherently unwelcome simply because they are new to an area, introduced by humans, or contribute to environmental or ecosystem changes.²⁶⁵ Instead, the Anishinaabe tradition encourages people to ask how new species can be used or honoured, mobilizing the gifts these new plants and animals have to offer.²⁶⁶ The idea of use here is not one of extraction, but comes from a place of establishing reciprocal relationships based on what different lifeforms offer each other.

Developing connections with newcomers resonates with Todd’s fishy refraction, which encourages tenderness to those who offer stories and lessons. Similar to the Anishinaabe tradition as outlined by the Sault Ste. Marie Tribe, fishy refraction calls for a tending to and caring for fish as part of an ongoing legal-ethical relationship to fish. Seeing the crayfish, then, as alien or unwelcome, is not engaging in an ethical relationship with fish. As Reo and Odgen point out, the Sault Ste. Marie Tribe do not consider the species themselves to be the issue here, the main issue is “invasive land ethic.”²⁶⁷ For this community, an invasive land ethic is part of settler-colonial property ownership regimes, “command and control forms of management,” and worldviews predicated on separating people from nature.²⁶⁸ Central to the invasive land ethic is the idea that humans can control and dominate land, animals, and plants, instead of accepting the

263. Ibid., 1445.

264. Ibid., 1446.

265. Reo and Odgen, 1445.

266. Ibid., 1446.

267. Ibid., 1449.

268. Ibid.

generous gifts that each have to offer to one another. Again, these ideas echo Todd's argument that developing legal-ethical relationships to fish can disrupt how settler-colonial states shape human interactions with lands, waters, and the atmosphere.

Why exactly does Indigenous sovereignty matter here? This invasive land ethic is clearly an extension of settler-colonialism, which Whyte defines as “complex social processes in which at least one society seeks to move permanently onto the terrestrial, aquatic, and aerial places lived in by one or more other societies.”²⁶⁹ For Whyte, settler-colonialism severs the latter society's relationships with the plants, animals, physical entities, and ecosystems of those places.²⁷⁰ I argue that *crayfish* points to the connection between how invasive species are handled by researchers and the ongoing refusal of settler-colonial states to acknowledge Indigenous sovereignty. At the time of writing, the United Nations Convention on Biological Diversity, recognized as COP15, was being held in Tiohti:áke/Mooniyang (‘Montreal’), and many protests were held across this place to point out national and international plans to protect biodiversity that may infringe upon Indigenous sovereignty, land claims, or exclude Indigenous peoples leading the fight to protect biodiversity around the world.²⁷¹ In this way, there is an explicit connection between the rights of Indigenous peoples, their sovereignty, and environmental issues on a global scale. Todd's drawing, then, doubly challenges us to consider Indigenous sovereignty as necessary to tackling issues around biodiversity.

269. Whyte, "The Dakota Access Pipeline, Environmental Injustice, and U.S. Colonialism," 161.

270. Ibid.

271. “Montrealers demand world leaders listen to Indigenous voices at COP15 forum,” *CBC News: Montreal*, December 10, 2022, <https://www.cbc.ca/news/canada/montreal/montreal-world-leaders-indigenous-voices-cop15-forum-1.6681868>.

3.3 T̥ēmā Igharas: “The Lake is a Cup”

Before Tāltān²⁷² artist T̥ēmā Igharas pursued her artistic career, she worked as an archaeological field assistant at various mining projects, such as Schaft and Galore Creek mine projects from 2008 to 2010. Igharas’s work consisted of gathering evidence of historical, sacred sites to assist companies in deciding which sites would be mined over, built over, or become a tailings pond. In my interview with Igharas, I learnt that mining companies around the world often hire individuals from surrounding communities to work on mines. In other words, it is a common practice for companies to ensure community buy-in by hiring members from the local communities. In ‘Canada,’ this practice is executed under legally binding contracts called impact and benefit agreements (IBA) which exist to ensure economic benefits of resource extraction and avoid environmental harm.²⁷³ In fact, the Canadian federal government employs a Centre of Expertise on Impact and Benefit Agreements (CEIBA) to “[...] support communities in the agreement negotiation process, particularly in the mining, forestry, and energy sectors.”²⁷⁴ IBAs are arguably contentious. On one hand, extractive industries can generate wealth, especially in communities across ‘Canada’ that struggle with unemployment and financial instability. T̥ēmā mentioned that mining corporations in her territory commit to funding cultural events and programs as part of fulfilling IBAs. Communities in remote areas — away from major urban centres with large-scale galleries, museums, and networks — can benefit from financial resources to support emerging artists. On the other hand, questions arise around what is lost by accepting those funds. No matter how sustainable resource extraction claims to be, pollution and

272. The Tāltān nation is one of many Dene First Nations whose homelands are what is now considered northwestern British Columbia, Northwest Territories, Alberta, and Saskatchewan.

273. Government of Canada, “Centre of Expertise on Impact and Benefit Agreements: an important ally,” last modified on February 28, 2022, <https://www.sac-isc.gc.ca/eng/1645561183367/1645561204248>.

274. Government of Canada, “Centre of Expertise on Impact and Benefit Agreements: an important ally,” last modified on February 28, 2022, <https://www.sac-isc.gc.ca/eng/1645561183367/1645561204248>.

toxins will always seep into the land and water.²⁷⁵ Perhaps even more importantly, the governing bodies that negotiate and agree to IBAs or other agreements and partnerships on behalf of an entire community do not always represent consensus views.

Rather than debating the presence of mining corporations, this section works through complex consequences and effects of mining by exploring how Igharas's multidisciplinary work *Black Gold* resists colonial extractivist ideologies. In my analysis of Igharas's work, I focus on resource extraction as a colonial system instead of villainizing the use of minerals, materials, and metals, homing in on Igharas's goal of cultivating a relationship with mined materials. Taking cues from the Indigenous feminist notion of confluence, my goal is to think through how those relationships work and how they can represent the diversity, complexity of perspectives, and interdisciplinary considerations that emerge when working between art and geology. In my interview with Igharas, she discussed a field trip she took with a collaborator to Port Radium, a notorious mining area near Great Bear Lake, Northwest Territories, that displaced the Sahtú'tine Nation from their homelands on the lake's shore. Members of the Nation served as Igharas's tour guides, and they shared some of their own worldview with her and her collaborator, referring to the lake as a cup. This metaphor, detailed in the interview excerpt below, questions the colonial logic that only sees metals and mined substances as valuable through their extraction, presenting water as a contrast to that extractivist ideal. A reverence for the water and its symbolism of wealth through relationships with and on homelands guides my analysis.

[...]this has been a huge impact on my thinking that something so powerful could also be so accessible. That you could draw the water and that you could have some of that power in your body and that life sustains you. At the same time, this lake almost killed us the day before you know. There was this kind of power that we have access to with the metaphor of the cup. And it was something that I already was thinking about, in another instance with the name "Tāltān" being a Tlingit word for Food Platter. I think about that

275. To my knowledge, designers and engineers need to be hired to ensure that seepage is limited. Whether or not mining companies do this is uncertain.

sometimes, about the wealth of our territory. At one point, it sustained us, and we were rich because of the abundance harvested from the land. And it continues to be that way, but now, it's other resources. Simply put, we're trading our harvest sites for tailings ponds and mining roads.²⁷⁶

3.3.1 Flows of Oil, Gas, and Minerals across the Settler Nation

For hundreds of years, the Tāltān Nation and many other communities mined and used minerals like jade, clay, quartz, crystals, mica, copper, obsidian, graphite, coal, and opal in their daily life. These were used for medicinal purposes or even worn as adornment for clothing. Copper, for instance, is known to be curative due to its natural antibacterial properties.²⁷⁷ For that reason, the Haida Gwaii typically used copper needles for ceremonial tattooing.²⁷⁸ Copper also represents wealth and status for many First Nations communities across 'British Columbia' ('BC'). Mining has always been significant for the Tāltān Nation. They typically mined obsidian, or "Tāltān gold,"²⁷⁹ formed by the solidification of volcanic lava when Mount Edziza erupted in the Holocene age.²⁸⁰ First Nations "mining practices" were small-scale and did not result in large-scale pollution.²⁸¹ Teasing out the significance of obsidian in her master's thesis, Igharas wrote, "Elders consider sites with obsidian sacred for being evidence of my ancestors traveling our territory, carrying obsidian from Mount Edziza throughout our LAND and beyond through trading relationships."²⁸² Today, Tāltān territory is part of the highly sought after Golden Triangle. Named by the mining industry, it is an area in 'BC' that contains 500 kilometres of

276. T̄sēmā Igharas in discussion with the author, October 27, 2024.

277. Melanie Mackay. "Indigenous Mining: Ancient Wisdom and Modern Practice," in *Heavy Metal: Earth's Minerals and the Future of Sustainable Societies*, ed. Philippe D. Tortell, Open Book Publishers, 2024, 110, <https://doi.org/10.11647/obp.0373.11>.

278. Ibid.

279. T̄sēmā Igharas, "LAND | MINE," MFA thesis, OCAD University, April 2016, https://openresearch.ocadu.ca/id/eprint/508/1/Skubovius_Tamara_2016_MFA_IAMD_Thesis.pdf.

280. Elizabeth Fillatre Miller and Kevin Hidber, Jessy Chaplin, Mike Skurski, R. Brent Murphy and Nalaine Morin. "SnipGold and Tāltān Central Government collaboration on reclamation of the former Johnny Mountain Mine." Paper presented at the *British Columbia Mine Reclamation Symposium*. 2020. <https://doi.org/10.14288/1.0402427>.

281. Mackay, 112.

282. Igharas, 11.

precious metals.²⁸³ Since the early years of the Gold Rush, mining companies have set up shop on Tāltān and other shared territories, performing large-scale excavations. Ultimately, the companies abandoned those sites when resources were depleted. However, they left behind hazardous waste piles and tailings ponds, a method for storing the waste or the remaining tailings from resource extraction, usually mixed with water to make it easily transportable and possible to store long-term. Approximately 1,700 abandoned mines can leach acidic toxic metals into the surrounding environment, threatening the health of watersheds and food supplies, like salmon.²⁸⁴ These practices continue to this day. Other regions of Tāltān territory face threats of being mined for oil and gas, such as The Klabona (‘Klappan’) region, also identified as the Sacred Headwaters, the birthplace of the Stikine, Skeena, and Nass Rivers in the northwestern ‘British Columbian’ subarctic.²⁸⁵ Besides the fact that the centre of Tāltān territory exists at the confluence of the Stikine and Tāltān rivers, the Sacred Headwaters is a culturally and spiritually significant area for the Tāltān and other neighboring Nations. The headwaters is one of North America’s last intact freshwater ecosystems, home to diverse species of animals, but it is eyed by extractive industries for its fossil fuels and other minerals.²⁸⁶

In the face of external interests to develop Tāltān homelands for oil, gas, and other resources, the Tāltān Nation Development Corporation (TNDC) formed in 1985 to provide services to five mineral projects and mines. The TNDC functions as an avenue through which Tāltān are able to exert their constitutional rights over resources in their territory.²⁸⁷ The Tāltān

283. Mackay, 11

284. Mackay, 112

285. Susan Roy, “‘I live off this land:’ Tāltān women and activism in northern British Columbia,” *Women's History Review* 28, no. 1 (June 5, 2017): 42, <https://doi.org/10.1080/09612025.2017.1333947>.

286. David Suzuki and Ian Hanington, “Tahltan’s decades-long struggle to protect Sacred Headwaters,” *David Suzuki Foundation*, December 8, 2022, <https://david Suzuki.org/story/tahltans-decades-long-struggle-to-protect-sacred-headwaters>

287. Mackay, 112.

Central Government (TCG) also represents the communities of Iskut, Dease Lake, and Telegraph Creek, dialoguing with extraction companies to ensure community voices are heard. The Tāltān TNDC and the TCG supposedly seek to uphold Tāltān constitutional rights around their territory in partnerships with mining corporations or other companies. However, Tāltān community members are not always in agreement with the TNDC's decisions, and members often protest by setting up blockades when companies attempt to mine. In 2005, Iskut elders were arrested for blockading sites where Fortune Minerals had set up coal mines in Tl'abāna territory.²⁸⁸ In 2007, Tāltān elders formed another blockade to prevent Royal Dutch Shell from performing coal-bed methane tests.²⁸⁹ And in 2004, the Klabona Keepers opposed the decisions of TCG's Chief, Jerry Asp, who allowed Shell to perform exploratory drilling without full agreement and support from the community.²⁹⁰ The Klabona Keepers are a group composed primarily of women and elders and women that formed to defend the Sacred Headwaters, and their activism continues as some of the largest industrial companies express interest in developing the land for coal, oil and other mineral deposits.²⁹¹ Their defense of the Sacred Headwaters has been pivotal, contributing to legally binding documents like the 2017 Klappan Agreement that protects 280,000 hectares of the area from resource extraction.²⁹² A recent documentary, titled *The Klabona Keepers*, outlines fifteen years of the group's resistance to industrial activities and links the removal of Indigenous peoples from their lands in order to facilitate resource extraction with the advent of

288. Susan, 42.

289. Ibid, 43.

290. Ibid., 49.

291. Beyond Boarding, "The Klabona Keepers Film," accessed on December 6, 2025. <https://beyondboardingcollective.com/klabonakeepers>.

292. David Suzuki and Ian Hanington, "Tahltan's decades-long struggle to protect Sacred Headwaters," *David Suzuki Foundation*, December 8, 2022, <https://davidsuzuki.org/story/tahltans-decades-long-struggle-to-protect-sacred-headwaters>.

residential schools. In a review of the film, environmental activist and scholar David Suzuki writes:

The film portrays the area's immensity and beauty, and the Tāltān people's ongoing relationship with its land and waters. It's a relationship governments and churches tried to break when they took children from their families and communities and forced them into residential institutions throughout the 1990s. These horrific abuses and rights violations were aimed at extinguishing languages and cultures, and dividing people from each other to ease the way for industrial and mining interests.²⁹³

I have described the history of resource extraction in and around Tāltān territory above to provide context for Igharas's work and my analysis of *Black Gold* below. However, the threats of large-scale industrial activity in places like the Sacred Headwaters are not exceptional to 'BC.' As I discussed earlier in my analysis of Zoe Todd's work, Indigenous homelands in Amiskwaciy-wāskahikan and the Western Sedimentary Basin are regularly mined for fossil fuels, harming both aquatic beings and Indigenous communities. As minerals and metals move across the settler Nation and around the world, settlers further establish themselves and guarantee their own futurity in 'Canada' at the expense of Indigenous communities' whose historical and traditional cultural practices are so embedded in learning from the land. For Tāltān, the wealth, health, and livelihoods of their community comes from the sharing of food sources from rich harvest sites, through practices like the Potlatch.²⁹⁴ Stó:lō scholar Dara Kelly says, the potlatch system is a "[...] literal and metaphorical ethic of feasting as an investment in both individual and collective futures [...]"²⁹⁵ Similarly, Igharas told me that during the potlatch ceremony,

293. Ibid.

294 The Potlatch is a ceremony commonly understood as redistributing wealth through gift-giving of food and other objects of precious value, while The Potlatch is often accompanied by dancing, feasting, and other performances. The practice has been a significant historical part of various First Nations living on the West Coast of 'Canada.' The practice was banned in the late 1880s to the 1950s by the Canadian government, which is considered a form of cultural genocide and part of processes of assimilation in the attempt to colonize Indigenous homelands.

295. Dara Kelly and Christine Wilson, "Ethical Indigenous Economies," *Engaged Scholar Journal: Community-Engaged Research, Teaching, and Learning* 7, no. 1 (June 2, 2021): 152, <https://doi.org/10.15402/esj.v7i1.70010>.

wealth and status is not attributed to how much one has to give away, but status comes from relationships to others. These values are not always shared throughout communities, and some would rather attribute wealth and status to profit and mining. Based on the issues that the Klabona Keepers and other Tāltān have faced with the TCG and TNDC, it is fair to say that the differing and range of views of these communities are not always well-represented by official governing bodies. To be clear, as a woman who is not Indigenous to Tāltān territories, I am not critiquing the forms of governance that exist for Tāltān communities. Instead, I suggest that within the context of industrial pollution and resource extraction near and around BIPOC communities, certain perspectives, like those of women, are not always heard. In conjunction with the fact that mining has been a culturally significant part of Tāltān culture, it is accurate to suggest that responses and perspectives with regards to resource extraction are complicated and varied. In the following section analysing *Black Gold*, I argue that Igharas's work represents nuance in perspectives, while also drawing from geology to excavate the layers of complexity in human relationships to fossil fuels, or more appropriately, fossil kin.

3.3.2 *Black Gold* (and what came before)



Figure 9: T̄ēmā Igharas, *LAND/MINE*. 2016. Image from Graduate Thesis Exhibition, OCAD University, Toronto, Ontario, Canada. Photo credit: Jonathan Igharas. All rights of image reserved to the artist.



Figure 10: Tsēmā Igharas, *LAND/MINE*. 2016. Installation image from Graduate Thesis Exhibition, OCAD University, Toronto, Ontario, Canada. Photo credit: Jonathan Igharas and Marcus A. Gordon. All rights of image reserved to the artist.

Igharas has typically created works that explore relationships to metals and minerals, even before the creation of *Black Gold*. The artist often uses mined substances as material in her pieces. For example, Igharas created an ongoing series of manipulated Canadian pennies called *High Grade Copper Anomalies* (2015-) which consists of melted pennies — mostly made up of pre-1996 copper—arranged in sculptures of penny nuggets. Her graduating thesis exhibition, *LAND|MINE* (2016) primarily considers obsidian as a form of reflection on the artist’s own relationship to land, mining, consumption, and wealth from her perspective as a Tāhtān woman [Figures 9 and 10]. Igharas and her collaborator, Erin Sindall created a series of installations called *Great Bear Money Rock* (2019), presenting research from a field trip they took to Délīne in Sahtu Dene Territories to visit the famous uranium mine at Port Radium located near Great Bear Lake, the eighth largest freshwater reserve in the world [Figure 11]. With assistance from

local guides, Igharas and Sindall boated to Port Radium to better understand the history of resource extraction in the area.



Figure 11: Tšēmā Igharas and Erin Siddall, *Great Bear Money Rock*. 2019. Installation image from Toronto Biennale of Art. Photo credit: Toni Hafkenschied and Rebecca Tisdelle-Macias. All rights reserved to the artists.

The lake and the health of its aquatic animals are regularly threatened by industrial interests that extract minerals from the shores, use large quantities of water to process minerals, ore-bodies²⁹⁶ and other metals, and use bodies of water as dumping sites for tailings and other waste that results from mining operations, especially from Port Radium.²⁹⁷ The waste and dangers of mining at the site began almost one hundred years ago. In 1930, industrial miners discovered pitchblende, silver, and cobalt ores, and radium mining began shortly after in 1932. Beginning in 1942, uranium mining also occurred at Port Radium for almost 20 years.²⁹⁸ Early miners were exposed to high levels of radon, putting them at high risk of developing lung cancer. *Great Bear Money Rock* ultimately aimed to activate this history. On the way back from Port

296. Igharas mentioned that water is used to prevent toxic ore from oxidizing.

297. Doug Chambers, Gerd Wiatzka, and Steve Brown, “Port Radium Canada's Original Radium/uranium Mine, the Complete Story of Canada's Historic Radium/uranium Mine, 1932 to 2012 - 13159,” paper presented at the WM Symposia, February 2013, 2. <https://www.osti.gov/biblio/22224929>.

298. Chambers et al., 1.

Radium, Igharas and Sindall experienced extremely harsh weather, an event that provided Igharas with a deep reverence for the water and further inspired her to think through the wealth and power of resources in relation to water. After this project, Igharas continued her critique of the industrial pollution of water in *Tailings Pool* (2021), a large public land installation [Figure 12]. In this work, Igharas reconfigured the mining tailings ponds into a kidney-shaped swimming pool to highlight “human overindulgence and its environmental impact.”²⁹⁹ The familiarity of the human swimming pool as a form of recreation and leisure is contrasted by industrial pollution caused by overindulgence.

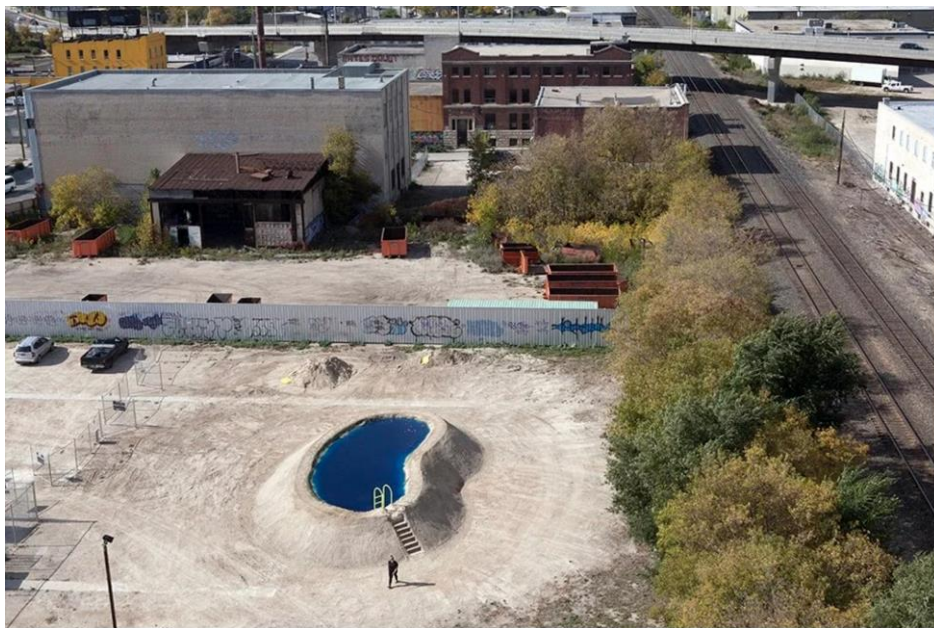


Figure 12: Tsēmā Igharas, *Tailings Pool*. 2021. Installation image from Plugin Gallery, Winnipeg, Manitoba. Photo credit: Karen Asher. All rights of image reserved to the artist.

Her initial experience working as a scientist field assistant led to years of research and art works, ultimately culminating into *Black Gold* — what I see as an interdisciplinary exploration of the mining industry. In her three-year project, *Black Gold* explores the idea that fossil fuels are

299. Tsēmā Igharas, *Tailings Pool*. 2021. Outdoor public artwork, Plug In Institute of Contemporary Art, Winnipeg, <https://www.tsema.ca/#/tailings-pool/>.

part of human bodies through shared geological regions, taking bitumen as material and point of exploration. Igharas shared with me that she wanted to translate her exploration of other orebodies, like copper and obsidian, to bitumen. *Black Gold* takes the form of performance, digital mapping, and sound and video works. Igharas explores beings that are mined from her home territory, the unceded lands of the Tāltān First Nation in ‘BC’ and Amiskwaciwāskahikan, specifically interrogating the Athabasca oil sands that are part of the Western Canadian Sedimentary Basin. This series is different from her previous work, in that it more fully interrogates the literal movement of fossil fuels and mined substances across the settler nation as kin or actual beings. In the final iteration of *Black Gold* — the online exhibition held by Centre Clarke in Tiotià:ke/Mooniyang (Montréal) — Igharas traces the manifestation of these mined substances across Treaty 7 and Treaty 8 Territories. The online exhibition presents *Black Gold* as eight geological strata — layers of rock that are drilled by corporations seeking to extract fossil kin from deep within the earth. Through layers of relationships to places, peoples, dirt, and other entities, *Black Gold* establishes kinships to the extracted fossil kin. Each stratum in the online exhibition presents a different artwork produced by Igharas. As the viewer moves through the strata from the top to bottom, they dig through the strata in the same way a corporation might mine to access fossilized beings. By developing relationships to mined materials and oil sands as fossil beings, Igharas makes space for conversations around the history of sustainable mining in Indigenous Nations in contrast to the large-scale and destructive extractive practices that are taking place today by corporations. Igharas, then, offers a metaphor for mining deeper into how humans have become bound to fossil beings through the process of resource extraction.

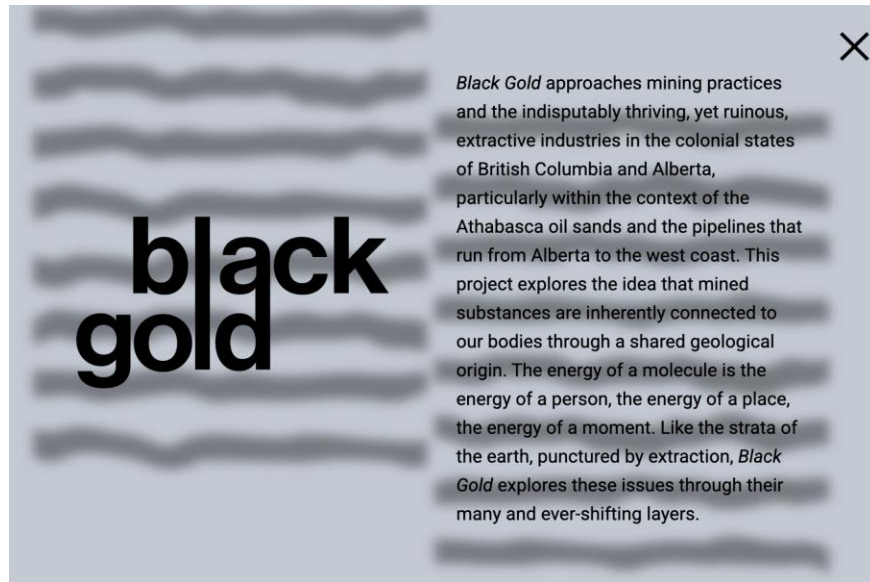


Figure 13: T̓sēmā Igharas, *Black Gold - Stratum I*. 2019-2022. Screenshot <https://blkgold.ca/>. All rights of image reserved to the artist.

“Stratum One” introduces the project and the exhibition, simply presenting its framework [Figure 13]. To truly understand *Black Gold*, the viewer must mine deeper. “Stratum Two” is a digital map that shows the movement of smoke and pollution from ‘BC’ as it covers over Amiskwaciy-wâskahikan [Figure 14]. This stratum shows the eastward winds from the Pacific Ocean that pushed smoke from unceded territories of ‘BC,’ where 12000 square kilometres of land, homes, and structures burnt in 2018, including in Igharas’s home territory and in Telegraph Creek. At the same time, heavy crude, extracted from oil sands in Amiskwaciwâskahikan, is shown moving westward to those unceded territories. The map illustrates this eastward-westward movement of bitumen and smoke while mapping areas in ‘BC’ where land, grassy areas, and forests burnt in the summer of 2018 when ‘BC’ experienced one of the worst wildfire seasons on record since 2017.³⁰⁰ Worsening wildfires are a consequence of environmental and atmospheric

300. Bethany Lindsay, “2018 now worst fire season on record as B.C. extends state of emergency,” *CBC News: British Columbia*, August 29, 2018, <https://www.cbc.ca/news/canada/british-columbia/state-emergency-bc-wildfires-1.4803546>.

changes caused by human pollution, or more accurately, industrial pollution. Oil sands, “loose sands of partially consolidated sandstone that contain a mixture of clay, sand, water, and bitumen,” are considered an “unconventional” oil source, and they are particularly harmful to the environment, generating about four thousand more carbon dioxides than conventional drilling.³⁰¹ Igharas notes that this backward/forward movement of smoke and crude oil is the “movement of Black Gold,” pointing out the irony with which large-scale resource extraction continues despite visceral evidence of environmental and health issues. Not to mention, wildfires often occur in and around homelands of Indigenous First Nations. Statistics Canada has reported that almost 100,000 First Nations were evacuated from their homes across ‘Canada’ between April 1, 2014, and March 31, 2024, due to wildfires alone.³⁰²

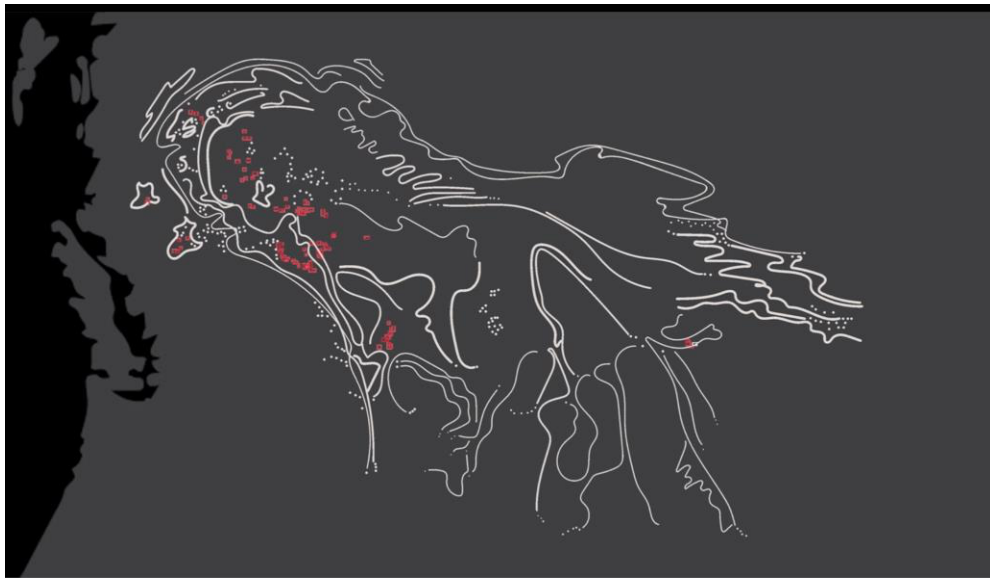


Figure 14: Tsēmā Igharas, *Black Gold - Stratum II*. 2019-2022. Screenshot <https://blkgold.ca/2>. All rights of image reserved to the artist.

301. Heydon, 334.

302. This includes all provinces and territories between . There are likely more as the statistic only includes on-reserve and other First Nations who were eligible to receive assistance from Indigenous Services Canada’s Emergency Management Assistance Program. <https://www.sac-isc.gc.ca/eng/1583177459681/1583177553276>.

Digging deeper into the strata, “Stratum Three” shows a video of a Pow Wow Ring that was acquired for the Frog Lake Cree Nation with revenues from leasing the land for industrial infrastructures [Figure 15]. As I mentioned, many corporations make financial commitments to fund cultural and artistic programs as a way to secure community buy-in for their extractive operations, particularly near Indigenous territories. Igharas is critical of the fact that those same corporations effectively inhibit Indigenous Nations from being on their ancestral homelands by polluting waterways and integral food sources. Taking this even further, I argue that this stratum exposes the arts and cultural sector’s sponsorships from oil, gas, and other extractive industries.³⁰³ Igharas nod to this fact is a reminder of the constant negotiations required when working in spaces that are inextricably connected to dubious funding sources and subsequent power dynamics.



Figure 15: T̄ēmā Igharas, *Black Gold - Stratum III*. 2019-2022. Screenshot <https://blkgold.ca/3>. All rights of image reserved to the artist.

303. Kirsty Robertson, *Tear Gas Epiphanies: Protest, Culture, Museums*, (Montreal; Kingston: McGill-Queen’s University Press, 2019), 184-185.



Figure 16: Tsēmā Igharas, *Black Gold - Stratum IV*. 2019-2022. Screenshot <https://blkgold.ca/4>. All rights of image reserved to the artist.



Figure 16.1: Tsēmā Igharas, *Black Gold - Stratum IV*. 2019-2022. Detailed screenshot <https://blkgold.ca/4>. All rights of image reserved to the artist.

The next stratum, “Stratum Four,” digitally maps the sites where the components of *Black Gold* were produced, performed, and exhibited, from ‘BC’ to Centre Clarke, following the pipeline that runs across ‘Canada.’ Once clicked, some areas show videos of Igharas performing in a forest with a flag that features layers of images of bitumen core samples, while others

display images of her works installed in galleries or pollution covered skies [Figure 16.1]. The bitumen core samples on the flag are from a scientist and friend of Igharas's that was shared with her early in her considerations of bitumen. The artist's inclusion of herself in this work is a kind of self-reflection, highlighting an awareness of how her own actions are implicated in the movements of black gold and suggesting that others must engage in a similar kind of self-reflection, too. My favorite, "Stratum Five," is an interactive page with the visual of an arm and hand positioned in the solidarity fist superimposed over a flag made of water waves [Figure 17]. The viewer can move the arm around and manipulate the hand to create their own "water flag." It implies a kind of solidarity with waterways and hints that we need to protect them from the movement of crude oil, even thousands of kilometres from where it is extracted. In the Athabasca oil sands, large amounts of water are needed to separate sand from the bitumen. The mining industry has been warned of both the effects of overconsuming water and polluting the Athabasca River.³⁰⁴ The health of rivers, lakes, oceans, seas, and other bodies of water is integral to the health of all, or as Baldy and Yazzie suggest, there exists an interdependency of survival between lifeforms. As waterways become increasingly polluted, it is often non-human animals and the most marginalized communities who are at-risk of ingesting toxins in the waters. Many waterways close to Indigenous people's homes become polluted from the construction of dams or oil spills, like in the case of Emma Hassencahl-Perley's community in Tobique First Nation. In our interview, Hassencahl-Perley suggested that there is a kind of cultural loss that comes from changes in the land—that traditional or cultural activities, emotional well-being, and social relations drastically changes or even declines in the face of pollution of waterways, especially for Indigenous communities.³⁰⁵ Igharas's fifth stratum encourages viewers to imagine a commitment

304. Heydon, 335.

305. *Ibid.*, 334.

to the safety and health of water and all forms of life, instead of a patriotism to settler Canada that supports and is supported by extractive industries.

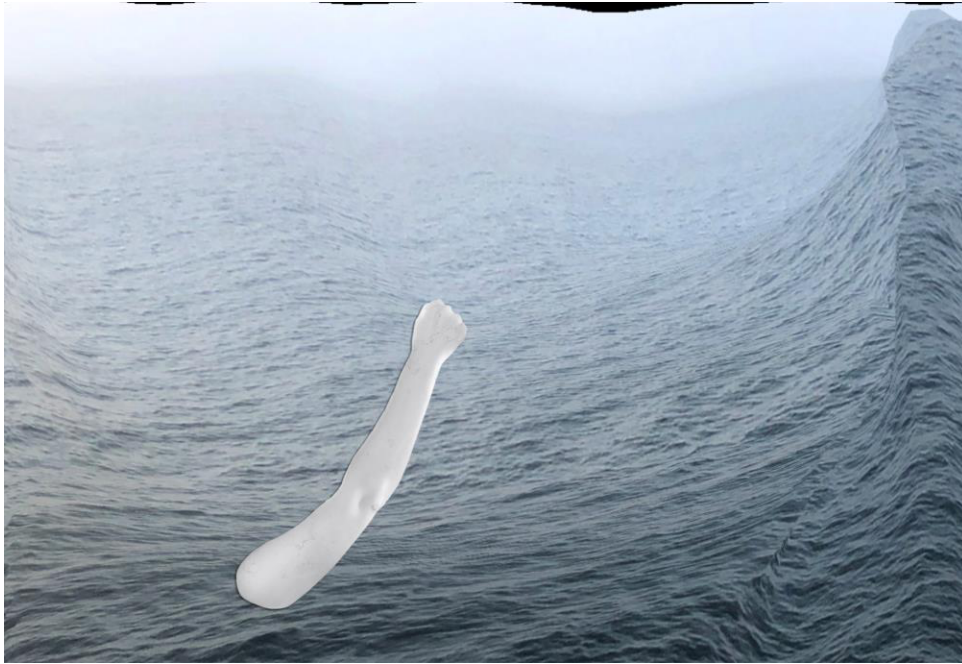


Figure 17: Tšēmā Igharas, *Black Gold - Stratum V*. 2019-2022. Screenshot <https://blkgold.ca/5>. All rights of image reserved to the artist.

One of the final strata, “Stratum Seven,” or “The Devonian Gardens,”³⁰⁶ animates the haunting sounds of the Devonian evergreens, or *Araucariaceae*, a family of coniferous trees that existed during the Paleozoic era. They have been discovered as fossils throughout ‘Canada,’ such as around the Chepe Sepe (‘Ghost River’) of Amiskwaciwâskahikan.³⁰⁷ Igharas points out that it is in fact these plants and other fossilized beings that are scoured and burnt for energy. In response to ongoing conversations with Igharas, Curator Natasha Chaykowski notes:

We’ve been resurrecting those Devonian gardens, wrenching them from their resting places strata below. Burning their bodies, worshipping their energy, an insatiable desire for that sweet release: C137H97O9NS to CO₂ and some other things also. The forests burn now each summer, hotter and more fiercely, the remnants of their long-buried ancestors

306. I could not find “Stratum Six,” and it is unavailable on the website, so I had to exclude it.

307. James Basinger, “Fossil Plants,” *The Canadian Encyclopedia*, last modified on June 29, 2015, <https://www.thecanadianencyclopedia.ca/en/article/fossil-plants>.

airborne and wily. Ancient conifers are meant to rest in the ground. Make no mistake, we're being haunted.³⁰⁸

As Todd writes, fossil fuels are kin, once alive as plants, dinosaurs, sabre-tooth tigers, and giant beavers, enacting some form of kinship with each other.³⁰⁹ The mining industry, and extractive industries more broadly, only consider fossil fuels as objects or resources to be used for human consumption, never as kin to be in relation with. Todd further points out that mining, heating, pumping, fracking, shipping, and burning is “[...]a rather violent way to treat kin.” From values of reciprocity, responsibility, and obligations learnt from Métis cosmology, Todd notes that fossil kin protect humans from certain buried pasts. Western Canadian Sedimentary Basin must be honoured as a resting place for all beings who once lived there.³¹⁰ My understanding from Todd’s argument is that there are direct environmental, health, and spiritual consequences to digging up the fossil kin, or unleashing their pasts into the present. In terms of Igharas’s work, these fossil kin can haunt us. Through the ghost-like soundtrack of the gardens and the plants, Igharas suggests that these beings are indeed haunting us with the promise of increasingly hot summers and burning forests. Unanga scholar Eve Tuck notes that haunting is a “[...]relentless remembering and reminding [...]” — a reminder of the death and violence of Black, Indigenous, and racialized peoples that underpins the futurity of settler societies.³¹¹ On this final, chilling

308. Tsēma Igharas, “Stratum VII,” Black Gold, Online Exhibition. Centre CLARK, Montréal, last modified 2022, <https://blkgold.ca/7>.

309. Zoe Todd, "Fossil Fuels and Fossil Kin: An Environmental Kin Study of Weaponised Fossil Kin and Alberta's So-Called 'Energy Resources Heritage'," *Antipode* (2022): 12, <https://doi.org/10.1111/anti.12897>.

310. Todd, "Fossil Fuels and Fossil Kin: An Environmental Kin Study of Weaponised Fossil Kin and Alberta's So-Called 'Energy Resources Heritage'," 1728.

311. Eve Tuck and C. Ree, “A Glossary of Haunting,” in *Handbook of Autoethnography*, 1st ed, eds. Stacey Holman Jones, Tony E. Adams, and Carolyn Ellis, (Walnut Creek, California: Left Coast Press, Inc., 2013), 642, <https://static1.squarespace.com/static/557744ffe4b013bae3b7af63/t/557f2d6ce4b029eb4288a2f8/1434398060958/Tuck+&+Ree,+A+Glossary+of+Haunting.pdf>.

note, Igharas concludes *Black Gold* with “Stratum Eight,” acknowledging the relationships and places that contributed to the project [Figure 18].

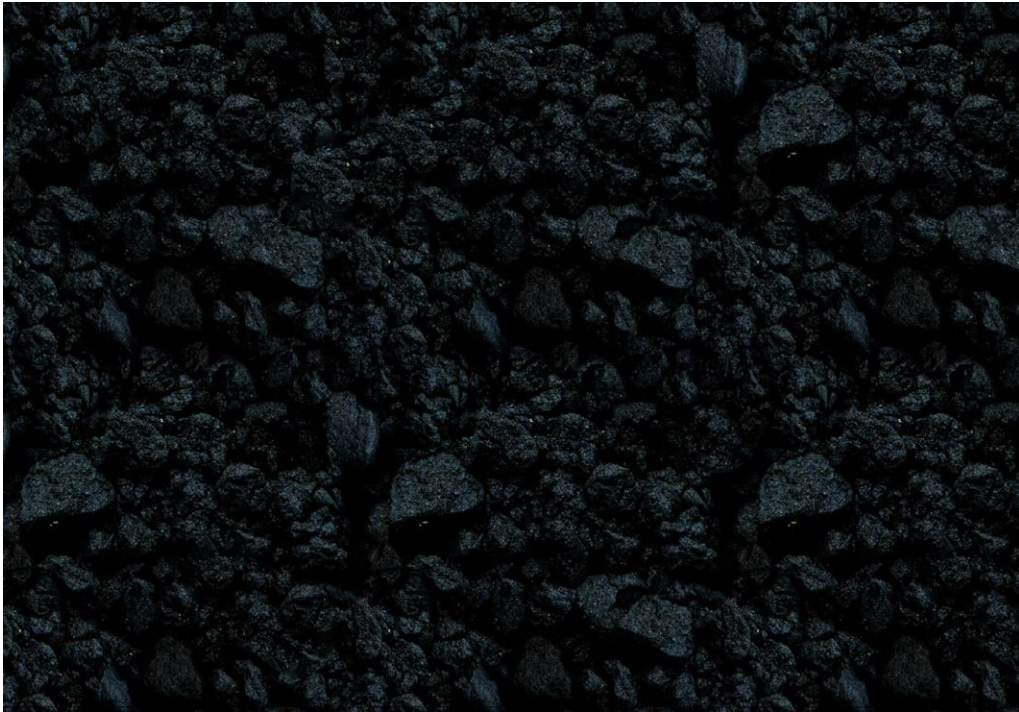


Figure 18: Tṣēmā Igharas, *Black Gold - Stratum VI*. 2019-2022. Screenshot <https://blkgold.ca/5>. All rights of image reserved to the artist.

Igharas draws out the multilayered consequences of fossil fuel extraction with her artistic interpretation of rock strata, a term that originates in geology. Scientists, like geologists, paleontologists, and geochemists, excavate and analyze rock cores to understand environmental, atmospheric, and climate changes over long periods of time, typically presenting this work to the International Union of Geological Sciences (IUGS).³¹² The goal of the IUGS is to outline distinct epochs that mark significant shifts in the geological record, evidenced by differences in rock strata or layers. The anthropocene is the most recently proposed geological epoch to mark environmental changes caused by human activity, particularly with the advent of the industrial

312. Alexandra Kellner, “Anthropocene epoch proposal rejected - does it really matter?” *Annals of the Brazilian Academy of Sciences* 96, no. 2 (2024): 1, accessed January 23, 2026, <https://doi.org/10.1590/0001-376520242024962>.

revolution.³¹³ While it has not been formally accepted by the International Union of Geological Sciences, as I discussed in my previous chapter on *The Anthropocene* exhibition, it has been taken up as a concept to think about in the Arts and Humanities. In *The Anthropocene* exhibition, there was little consideration of the importance of rock strata in determining a geological epoch.³¹⁴ Igharas's work, on the other hand, acknowledges this key characteristic of geology, while engaging with broader discussions around human activity and environmental change under the umbrella category of the anthropocene. Instead of focusing on whether the anthropocene exists as a geological epoch, or if human activity is enough to instigate a shift in the Earth's geological record, Igharas extrapolates the concept of layers to understand human relationships to fossil fuels. Her artistic practice reveals layers of relations to fossil kin, working with and beyond scientific markers of pollution and environmental changes. In this way, Igharas instills in the viewer that "the energy of a molecule is the energy of a person, the energy of a place, the energy of a moment."³¹⁵

3.4 Comparative Analysis

Clearly, Igharas and Todd have developed different artistic responses to industrial pollution and resource extraction. Throughout Igharas's years-long practice, she has developed a relationship to metals and mined substances by using them as materials in her artworks. In *Black Gold*, Igharas extrapolates the stories of mining from those very mined substances by paying close attention to the movement of bitumen, smoke, oil, and gas across 'Canada.' In doing so, Igharas's argument is clear — that human lives are and have always been bound to fossil beings.

313. In my research and experience writing about the Anthropocene, I have noticed that the term's coinage within geology comes as a surprise to scholars and researchers in the Arts and Humanities.

314. Based on my memory of the exhibition.

315. Tsēma Igharas, "Stratum IV," *Black Gold*, last modified, 2022, <https://blkgold.ca/4>.

The question here is whether that relationship has always been extractive-for-profit or if it has been based on some kind of reciprocity. Igharas's work suggests that the dire consequences of resource extraction require a kind of relationality between humans and mined materials based on reciprocity. As the obsidian, copper, or bitumen core samples often take the fore in her work, they give way to questions around sacrificing forms of wealth rooted in relationships in favour of profit-driven sites of resource extraction. Tāltān values and the potlatch underpin Igharas's practice. Zoe Todd's fish drawings, on the other hand, do not consider fish as material in the same way as Igharas's practice. By drawing fish, Todd's goal is to honor her own kinship with fish and highlight fish as generous teachers who offer lessons on taking care of our surrounding waterways and the environment. For Todd, fish are relatives, and we must pay attention to their movement and their health as a way to take care of each other and the planet. In our discussion, Todd acknowledged that this could verge on sounding flowery or cliché, but her drawings are firmly grounded in Métis values of interbeing and interdependency between various forms of life. Todd's kinship with fish is one example of that. Importantly, Todd's drawings do not obviously outline a broad story about water pollution and its effects on fish, like Igharas's *Black Gold*. Instead, each work is a colourful, creative and even joyous rendering of a given fish with very little visual indication of pollution, like bitumen, oil, or gas. But as Todd notes, fish have agency and are well aware of human ongoings, including extractivist activity. One must pay close attention to the fish and its ongoings to find those hidden stories across time and space.

While there are key differences between Igharas's and Todd's practices, the artists demonstrate similar themes around water, relationships to non-human beings and kinships, and communicating the complex effects of pollution on various communities. Working from their own subjectivities, both artists have developed individual practices as a strategy to respond to

pollution, with a focus on the effects of resource extraction on their specific communities. They also draw on various disciplines in the creation of their works. Todd's anthropology background informs the kinds of fish she chooses to draw, and her notion of fishy refraction arises from the field of physics. Igharas's inspiration from geological rock strata is even more obvious, and her desire to interrogate science stems from her experience working as a field assistant before embarking on her artistic career. Taking both artists together, they both value relations with non-human agents to expose the harm and consequences of resource extraction. Water is central to how they both developed their practices, too, and I believe that lessons from water have allowed both artists to create work that resists extractivist, colonial logics. Relationships, for both artists, are not transactional or extractive, but based on learning with and from others to understand relationships as attuning themselves to the struggles of others. Both artists look around them to recognize who they are in relation with, whether it be fish or bitumen, and they create works that honor the lessons from those beings.

Why is this significant within the context of local, national, and international policies, initiatives, and assessments around sites of resource extraction? These projects need to take cues from artists like Igharas and Todd who express nuanced, interdisciplinary research around reciprocity and, in the words of Baldy and Yazzie, living well. Importantly, I do not believe the answer here is to draw from Indigenous scholars and experts and Indigenous-run projects that work around the environment. Researchers have been known to extract information and knowledges from Indigenous communities for their own benefit, without properly crediting or compensating Indigenous participants in their research. And, as Whyte has noted, renewal of Indigenous knowledges is part of how communities strengthen *their own* climate and environmental planning. However, collaboration, working with, learning from, and sharing

resources is key in developing policies and projects that seriously consider the lives of marginalized communities and our non-human relatives. I am not suggesting that all sustainability and climate initiatives that arise from Western science or that are facilitated by the government are inherently colonial or problematic, and that Indigenous ones are pure and entirely sustainable. Instead, I am arguing that BIPOC artists develop work that speaks to the nuanced effects of pollution, and it is these considerations that offer a broader narrative of resource extraction.

I argue that artists across Canada have used similar strategies of developing relationships with materials, non-human kin, and other beings to demonstrate the complex effects of pollution on BIPOC communities. As I write, there is a growing movement of artists across ‘Canada’ exploring artistic materials as a response to pollution. In this way, Igharas and Todd’s respective practices are excellent case studies of strategies that artists have used in developing interdisciplinary responses to resource extraction. On this note, I turn to the next chapter where I discuss another artist, Christina Battle, who has worked similarly to Igharas and Todd. In contrast, Christina extends outward to others by developing a practice that is rooted in community engagement and becoming attuned to pollution.

Chapter 4 STREAMS OF COMMUNITY RESPONSES TO POLLUTION

Definition of stream: a body of running water (such as a river or creek) flowing on the earth; to flow in or as if in a stream; to leave a bright trail; to pour in large numbers³¹⁶

316. Merriam-Webster, "Stream," accessed December 9, 2025, <https://www.merriam-webster.com/dictionary/stream>.

4.1 Anchoring II Learning from Michelle about community-engaged work in the Arts

Jasmine Sihra: When you're trying to do things in a way that feels intentional, it can mean doing things slow. I think it often means doing things slowly, because you can't rush a relationship. People are going to ask you to come with an intention and a purpose. But you can't rush it, you have to sort of take your time.

Michelle Wilson: That's a big lesson! Here's an example. I have a colleague, a friend, from Winnipeg. I had removed this bison hide from a taxidermy mount. And I said to her, "I want to gift this to you, but what if we propose that we make that process into a relational, performative artwork?" And we talked about it, and she was on board. I wrote up the proposal, and it got accepted, and we got some funding. And then, COVID happened, so we had to renegotiate how that was going to look. And deadlines were looming, and I was just pushing and pushing and pushing to get things done, and that's just not the way my friend works. And it was causing me so much stress. And I was stressed about what she thought about me, and I was stressed about the process, and I was stressed about my obligations to others. And that was all me, you know, that wasn't reality. Or, it didn't need to be. I could have dynamited that relationship if I had given into those things. In the end, what transpired was a really beautiful project, and it really did work out. And it is a project that speaks so much to acts of care and acts of intentionality, and it really wasn't overdetermined. And that scared me at the beginning, because we centered it around the bison, but she wound up doing a teaching about clay. I was like, "How is the clay connected to the bison? How is this a cohesive narrative?" And I just had to let that go, and it does all live in the work. And you can really read a lot into it about connection to land, connection to water. It definitely made me less deterministic, about nailing the meaning and message.³¹⁷

317. Michelle Wilson, in discussion with the author, February 29, 2024.

Dr. Michelle Wilson is a white settler artist based in London Township Treaty Territory ('London, Ontario') around the Deshkan Ziiibii ('Thames River'). When I was in the middle of completing my undergraduate degree, I met Wilson as she was in the middle of completing her own PhD dissertation. Over the years, I have updated Wilson about my projects and research, and I realized that we have a shared interest in understanding pollution from an artistic perspective. I am especially interested in Wilson's many community-oriented projects that ask questions about pollution and ecology in my home province of 'Ontario,' specifically on Treaty Six Territory ('London, Ontario') where I lived for many years during my undergraduate degree. Wilson undertakes these community projects as a member of The Coves Collective, an interdisciplinary group of Indigenous and non-Indigenous artists, educators, and community members working to nurture the Coves, an environmentally rich area of Treaty Six Territory. The collective holds several arts-based workshops, activating the site by looking for naturally occurring clay or making plant-based dyes. The goal of these workshops is to better understand the area, especially the pollution in the waters that make up Coves, so that the group can ultimately recognize the variety of plants and animals that once thrived there and live there today. In one of their most recent projects, *Carp Fishing*, members of the collective researched pollution in the water that killed almost all of the fish in the East Pond of the Coves in 1970. Today, a non-native species of fish called carps thrive and help prevent aquatic vegetation from rooting. As a result, the collective seeks to harvest the carp as a way to develop better relations with the land, tanning fish hides and using scales for artworks. *Carp Fishing* is another Indigenous feminist example of developing relations to non-human beings through the waterways, by tending to water itself.

One Indigenous feminist value is to tend to our own relationships and reflect on how we arrive at the work that we do. I became friends with Wilson and Christina Battle around the same time, and I feel inspired by both of their practices that each emphasize community-engagement and work to provide solutions for issues around pollution, ecology, and biodiversity. I noticed that there is little scholarly research on community work around pollution and ecology. Thus, my goal in bringing Wilson into this section is to thematically set up this chapter that will continue to focus on community work in Christina Battle's practice, and introduce the idea of pollution action needing to be specific, place-based, and attending to obligations, as discussed by Métis scientist Max Liboiron.³¹⁸ In this chapter, I first explore various instances in which racialized communities have been deeply affected by pollution, contamination, and toxins, focusing on environmental racism and the origins of pollution research. This provides context for Battle's *seeds are meant to disperse* series and her *FORECAST* series from which I analyse two works: *Learning the signals/ Change is coming* (2021-) and *the air we breathe* (2023-). I argue that Battle's work demonstrates the significance of and possibilities for community-oriented, arts-based work to confront pollution in tangible ways. Battle's background in Environmental Biology is a very clear part of her works. That being said, it is not fair to say that her interdisciplinary negotiations are simply about harmoniously bringing together research and different ways of knowing about air, plants, or seeds. More appropriately, the conversation between disciplines in her works are nuanced and complex, revealing the shortfalls of both the Arts and the Sciences. One of these major shortfalls is the privileging of researcher or artist perspectives over community experiences. An Indigenous feminist lens of confluence will enable me to analyse those complexities and contradictions across her series.

318. Max Liboiron, *Pollution is Colonialism*, (Durham: Duke University Press, 2017), 7.

From the very beginning, my work has been about the climate crisis, but it has only kind of been recognized as being about climate change in recent years. I don't know, maybe that's not accurate, but that's how it feels to me. The institution of the arts shifts away and towards new themes and frameworks very quickly and I think this is part of the very critical element of art focusing on 'the now.' Which I also value – I think the artist's role is to respond to the world that we're living in. But I think the climate crisis itself, and climate change in general has only truly been recognized as a relevant issue within the arts (and let's be honest, in society overall) in recent years. While in other disciplines environmental justice and the intersections of social justice, equity, economics, politics, etc. as being critical parts of the climate crisis have been a given for decades, I think they have only been understood quite recently in the arts.³¹⁹

4.2 The Effects of Pollution on Racialized Communities

Dr. Christina Battle's *FORECAST* series and *seeds are meant to disperse* series that both respond to the disproportionate effects of pollution and environmental degradation on racialized communities, through a community-engaged practice. In 'Canada,' pollution and resource extraction has plagued Indigenous, racialized, and lower-income communities since the Second Industrial Revolution. Their exposure to environmental contamination and pollution is worsened by long-standing inequalities that arise from settler-colonialism and capitalism.³²⁰ The close proximity of these communities to toxic waste disposals or sites of polluting industries leads to greater exposure to pollution in the air and surrounding waters, soils, and sediments.³²¹ Throughout this dissertation, I have discussed other cases where Indigenous communities faced contamination and health issues from pollution, but these cases are not new. As early as 1900,³²² the health of Indigenous communities and Black-majority neighborhoods declined due to their proximity to hazardous waste sites and other industrial activity. The earliest recorded case is the Sydney Tar Ponds, also known as "Canada's Love Canal," a steel mill that operated between

319. Christina Battle in discussion with the author, February 23, 2024.

320. Ingrid Waldron, *There's Something in The Water: Environmental Racism in Indigenous & Black Communities*, (Halifax: Fernwood Publishing, April 2018), 6.

321. Ibid. 13

322. That has been recorded.

1901 to 1988 on Unama'ki ('Cape Breton'). These tar ponds were located close to the only Black community living in the province, with roots in the area going back to 300 years. The area is also a hunting and fishing ground for Mi'kmaq who are Indigenous to Unama'ki. For almost a hundred years, the steel mill operated without any pollution controls in the estuary at the mouth of Muggah Creek. The mill dumped several thousand tons of coal tar, including manufactured organic substances called polychlorinated biphenyls (PCBs), a known carcinogen.³²³ The local cancer rate was 45% higher than the rest of Unama'ki and the highest in 'Canada.' Environment Canada found that air pollution from the coking operations was almost 6000 percent higher than industry standards, but the steel mill did very little to address the health effects on workers and the surrounding neighborhoods.³²⁴ The Black communities of Africville, Lincolnville and Shelburne, also faced health issues from nearby hazardous waste dumps. For example, Africville, located in Mi'kma'ki ('Nova Scotia'), was rezoned in 1947 as industrial land even though people lived in the town. In 1950, the rezoning allowed for the construction of an open pit to act as a hazardous waste dump, as well as a fertilizer plant, slaughterhouses, a tar factory, a stone and coal crushing plant, and a prison.³²⁵ None of this occurred with consent from the community, and they were forced to relocate to other parts of the city.

Two other notorious examples of violence against Indigenous communities through the pollution of nearby lands and waters is the mercury poisoning of the Asubpeechosewagong Netum Anishinabek ('Grassy Narrows First Nation:' hereafter referred to as the

323. Waldron, *There's Something in The Water: Environmental Racism in Indigenous & Black Communities*, 74.

324. Ingrid Waldon, "Environmental Racism and Climate Change: Determinants of Health in Mi'kmaw and African Nova Scotian Communities," *Canadian Climate Institute*, July 22, 2021, <https://climateinstitute.ca/publications/environmental-racism-and-climate-change/>.

325. Environment and Climate Change Canada, "Air pollutant emissions," *Government of Canada*, last modified June 26, 2025, <https://www.canada.ca/en/environment-climate-change/services/environmental-indicators/air-pollutant-emissions.html>.

“Asubpeechoseewagong”), which I have discussed at length in this dissertation, and the pollution at Boat Harbour near the Pictou Landing First Nations, a Mi’kmaq First Nation. The mercury poisoning of the Asubpeechoseewagong is an ongoing issue, as the mercury dumping by Reed Paper Limited continues to cause severe health issues for the community today. As of 2024, the Asubpeechoseewagong have filed a lawsuit against the ‘Ontario’ provincial government for their failure to abide by their duties under Treaty 3. They have also launched a lawsuit against the provincial government over the ‘Ontario’ Mining Act which violates the Asubpeechoseewagong constitutional rights through the act’s free-entry system.³²⁶ Around the same time that the Asubpeechoseewagong were first exposed to mercury poisoning in their Wabigoon River, the Pictou Landing First Nation’s traditional hunting and fishing grounds in Boat Harbour were being polluted. This area was often used by the Mi’kmaq first nation for sustenance, and it was a sacred burial until 1967, when the government built and began operating the Northern Pulp Mill.³²⁷ The mill continues to discharge pulp and paper into Boat Harbour, discarding billions of litres of industrial contaminants into the harbour. Boat Harbour now has the third highest cancer rates per capita as compared to the rest of ‘Canada.’³²⁸ These examples demonstrate the long history of violent systemic discrimination through ongoing pollution of water and land close racialized communities. As Black environmental expert Ingrid Waldron notes, the effect of pollution is exacerbated by racialization.³²⁹

Common industrial pollutants of water include organic pollutants like pesticides, excessive nutrients like nitrogen or phosphorus, thermal pollution (heated water from industrial

326. Sarah Law, “Grassy Narrows First Nation taking Ontario to court over Mining Act, lack of consultation on land claims,” *CBC News*, July 12, 2024, <https://www.cbc.ca/news/canada/thunder-bay/grassy-narrows-first-nation-mining-act-legal-action-1.7260724>.

327. Waldron, *There’s Something in The Water...*, 75.

328. Waldron, “Environmental Racism and Climate Change: Determinants of Health in Mi’kmaq and African Nova Scotian Communities.”

329. Waldron, *There’s Something in The Water...*, 46.

power plants), and suspended solids, typically from mining or construction.³³⁰ Air pollution, on the other hand, refers to the release of pollutants in the atmosphere. In ‘Canada,’ the oil and gas industry is one of the major air polluters, contributing to the highest emissions of sulphur oxides, volatile organic compounds, nitrogen oxides, and carbon monoxide. Contrary to popular belief, personal automobile usage, including passenger cars and motorcycles only make up a small percentage of total air pollutants from transportation, whereas large trucks, airplanes, and trains make up the most.³³¹ The results of air pollution include smog, acid rain, fog, and, more recently, wildfires. Since 2022, I have personally noticed more smoke pollution from increased numbers of wildfires in ‘Quebec,’ ‘Ontario,’ and ‘Manitoba,’ travelling thousands of kilometres from where it originated. As Métis scientist Max Liboiron has written, the measurement and scientific indicators of pollution or toxins in water and other bodies have a long history, rooted in the advent of colonial expansion on Indigenous lands.

In response to this long history of exposure to pollution and toxins near Indigenous and racialized communities, many artists collaborate with community members on local levels on gardening and other artistic and creative projects to reassert relationships with land that have been disrupted by resource extraction. For example, through their work on the Onaman Collective, Christi Belcourt and Isaac Murdoch have led several projects working with youth on Indigenous land-based arts and language, such as *The Sacred Fisher Story: The Youth Mural Project*. T’uy’t’ananat Cease Wyss (Skwxwu7mesh, Sto:lo and Hawaiian) began *xaw’s shewáy’ New Growth* 《新生林》 (2019-2025), a series of community-organized, public gardens that used to be vacant lots located in Chinatown, ‘Vancouver, British Columbia.’ The overall objective of

330. Sustainability Directory, “Industrial Water Pollution,” last modified on March 31, 2025, <https://climate.sustainability-directory.com/term/industrial-water-pollution/>.

331. Ibid.

these projects was to resist a Eurocentric view of land management and to nurture the local ecosystem. In this dissertation, I do not consider the Onaman Collective's projects and Wyss's garden as interdisciplinary in the way that I understand it. This chapter is more concerned with art projects that clearly bring together disciplines to highlight the effects of pollution on Indigenous and racialized communities. Christina Battle's work firmly sits at this intersection. Her practice extends outwards to communities to confront the effects of pollution and environmental changes as they are felt unequally by various groups across geographies.

4.3 *seeds are meant to disperse* series

These solutions to thinking about environmental issues necessarily have to be creative solutions. And I feel like for us, clearly, that ability or that realization that we need to be creative is exciting and is actually inspiring.³³²

My own engagement with Battle's body of work began with her *seeds are meant to disperse* (2015-) series. Battle is a media artist of Black American and white settler descent, and she is currently based in Treaty Six Territory in Amiskwaciy-wâskahikan ('Edmonton'). I first met Battle when I was completing my undergraduate degree, and she was finishing up her PhD at Western University. To say that Battle's practice has been pivotal to how I make sense of my own research and work would be an understatement.³³³ I argue that Battle is one of the first artists in 'Canada' who has developed a deeply interdisciplinary response to pollution and settler-colonialism that results in an artistic body of works. Not only that, but her work engages various communities across geographies, asking them to pay attention to their local environments and attune themselves to the changing climate. Like Igharas and Todd's work, her projects are rooted

332. Christina Battle in discussion with the author, February 23, 2024.

333. I talk about Battle all the time: she was recently shortlisted for 'Canada's' top art prize called the Sobey Art Award, so I suspect others will rave about her, too.

in interdisciplinary research, but they differ in that they develop participatory, collaborative outputs. I often think of Battle's work as holding a hand to others, inviting them to join her in planting seeds, breathing in the air, and learning the signals of change that will come. There is a sense of care and love in her practice that resonates deeply with Indigenous feminist ontologies of waterways, that asks us to consider the possibility of being invested in the well-being of both human and non-human lives. Her *seeds are meant to disperse* series was part of her PhD dissertation and research on disaster as intertwining social, environmental, political, and economic processes. One of these disasters is pollution, but Battle tries to reframe disaster as "small" moments rather than one catalytic event.³³⁴ Her research spans across disciplines: the *seeds are meant to disperse* and *FORECAST* look to online and plant systems to navigate, understand, and interrogate the meaning of disaster. Battle's research on disaster always ripples into and throughout her works. She is committed to revisiting questions and ideas over time, particularly "how can small gestures of artistic practice be used as tools for change?" within the context of disasters. This question is felt in the smallest seed that Battle mails to friends across the country, and in her larger projects, like her solo exhibition *Under Metallic Skies* at Museum in London in 2024. Regardless of the scale, Battle's work involves some level of community engagement. In other words, a stream of community responses filters through her practice.

While her work blurs the lines between environmental biology and artistic practice, Battle's work has roots in the Fluxus movement, which began in the 1960s. Fluxus artworks are characterized by their use of materials in unexpected ways, or performances and happenings that exist in a state of flux.³³⁵ As a result, Fluxus artists are not necessarily concerned with having

334. Jasmine Sihra, "Breathing in Disaster: Christina Battle's Forecast," *Public* 35, no. 70 (October 2024): 35, accessed January 23, 2026, https://doi.org/10.1386/public_00203_1.

335. Museum of Modern Art, "Fluxus," accessed on December 9, 2025, <https://www.moma.org/collection/terms/fluxus>.

complete, finished works, which explains Battle's ongoing engagement with seeds and the everlasting ripples of works that stem from various parts of each project. She notes that *seeds are meant to disperse* is an ongoing project, and she seeks to adapt to and rethink strategies.³³⁶ One of the underlying questions of Battle's practice is the possibility of providing "...opportunities for critical engagement with conversations that might not otherwise occur within artistic institutions." This certainly comes through as inspired by Fluxus, but I argue that this is also apparent in Battle's background and research in the field of environmental biology that informs her practice around disaster. Both the influence of science and artistic output is hard to miss. In the gallery, her practice can be read as contemporary art, but upon closer inspection, viewers are asked to critically engage with the issue of pollution as a kind of disaster.

seeds are meant to disperse continues today, almost ten years after it began. Put simply, Battle developed this series as a way to grow, save, and share seeds. Battle explains it best:

[...] Seeds take time to grow, to harvest, to prepare, and to share — an act that I see as gift as much as necessity and survival. As such, the seeds are offered as trade or gift, in an attempt to encourage and support alternative systems of exchange. As the seeds are gifted and grown, they are meant to help others imagine building a world different from the trajectory it is currently on [...] As an ongoing and forever growing project, I continue to adapt and rethink strategies as the work strives to be more aware of itself: of the ways in which it might help draw attention to food security & sustainability, species diversification, seed copyright, climate change, urban renewal, and anti-capitalist forms of exchange...seeds are meant to disperse.³³⁷

Each year, Battle prepares a package of seeds based on ones that she has grown and harvested from her own garden. She invites participants to request seeds to plant during the growing season, and then she mails them to participants in different regions. At the same time, she shares some of the benefits of each type of plant. Most participants will learn how to plant the seeds,

336. Christina Battle, "seeds are meant to disperse [to get to the future, a return to the past]," in *Ecologies in Practice Environmentally Engaged Arts in Canada*, eds. Elysia French and Amanda White, (Waterloo, Ontario: Wilfrid Laurier University Press, June 2024), 66.

337. Christina Battle in discussion with the author, February 23, 2024.

and while there is an expectation that the seeds will result in plants, it is meant to be an experimental practice even for individuals who have never gardened before. The goal of the project is to map out how and where seeds are dispersed through active engagement with others who are interested in plants. For many years, the artist exchanged seeds for gifts, but recently the project has shifted to asking participants to send a response, in the form of a story or photograph, reflecting on the seeds after they have been planted. This series has dominoed into smaller projects, like zines, and has inspired offshoots of other projects, like her *FORECAST* series. In the following paragraphs, I analyse the *seeds are meant to disperse* series in three parts, going from the smallest gestures to largest: the seeds (small), the zines (medium), and the projects (large). After, I analyse her *FORECAST* series, which uses breathing and weather to ask participants to notice their surrounding environments. Throughout both sections, I argue that Battle's practice engages communities through interdisciplinary negotiations, focusing on how her work confronts pollution and colonialism.

4.3.1 the seeds

The roots of the *seeds are meant to disperse* are the seeds themselves. The title of the series is both metaphor and literal. Seeds disperse as they are planted, and they disperse through the packages that Battle mails to her participants. Dispersal means spreading out, something that seeds are meant to do. They are used to dispersing as part of how they survive and grow into plants. They disperse through wind, water, or with help from animals to ensure they get adequate amounts of sun, water, and nutrients. The most common example of wind dispersal can be seen in dandelions.³³⁸ When winds blow, they take white dandelion seeds with them, carrying the seeds far away with the hope of landing somewhere they can grow. Or, like me as a child, you

338. Science Learning Hub Pokapū Akoranga Pūtaiao, "Seed dispersal," last modified on March 15, 2022, <https://www.sciencelearn.org.nz/resources/103-seed-dispersal>.

picked dandelions out of the grass and blew on them to see how far they would travel. That's a kind of wind dispersal, too. Something about Battle's works always reminds me of a moment or experience in my life, which makes sense. Relations and reciprocity are central to her work with others and with the seeds themselves.

From an art historical perspective, I argue that Battle is working with seeds as a kind of material practice. During my interview with Battle, we talked about how her attention to the seeds, from the stage of harvesting to preparing them to be shipped, reflects a practice of care and attentiveness that other artists would surely relate to. For instance, a painter might pay attention to colour and light, responding to paint similar to how Battle responds to seeds. What is different here is that seeds are alive, though dormant. Battle has to be particularly careful about, say, where the seeds end up and if they will be able to thrive and grow into plants. In an exhibition that she was working on in Amiskwaciy-wâskahikan, Battle mentioned to me that she had to consider new parameters around which seeds she could highlight because the show would occur later in the harvesting season. Ultimately, she had to think through what would be best for the growth and life of the seeds themselves. From a more scientific perspective, one might focus on Battle's process of harvesting seeds, her choices around which to highlight during each season, how each of the plants would interact with each other in a particular region, and the benefits of planting in different soils. A lot of research suggests that sunflowers can take up toxins, like lead and metals, out of the ground through phytoremediation, a process whereby plants can extract and absorb different toxins as they grow.³³⁹ It is known to be a cheap and environmentally friendly alternative to other more expensive decontamination mechanisms, but

339. Johnson Kayode Adesodun, Mutiau O. Atayese, T. A. Agbaje, Bose A. Osadiaye, O. F. Mafe and Adeniyi A. Soretire. "Phytoremediation Potentials of Sunflowers (*Tithonia diversifolia* and *Helianthus annuus*) for Metals in Soils Contaminated with Zinc and Lead Nitrates," *Water Air Soil Pollution* 207, (June 27, 2009): 196, accessed January 23, 2026, <https://doi.org/10.1007/s11270-009-0128-3>.

questions remain around whether these would be safe for other lifeforms to consume.³⁴⁰ Beyond this, is it fair for us to rely on plants to fix the problem of industrial contamination and pollution? It is arguably reproductive of extractive ideologies and overconsumption that lead to high levels of contamination in the first place. This perspective could see plants as objects for use rather than living organisms with agency. Battle resists seeing seeds as a commodity to be used, instead framing them as lives to tend to that in turn give us life and sustenance. Battle's approach to saving seeds is different from other seed-saving practices focused on cross-pollination that would contain and privilege certain plants over others.³⁴¹ Her goal is simply to save enough seeds to plant for future years or share with others.

The *seeds are meant to disperse* series brings together a scientific perspective and an artistic and creative approach to pollution. On the one hand, there is an understanding that plants as organisms have capacities to remediate, to offer sustenance, and respond to the need to harvest and grow plants sustainably. On the other hand, the artistic or creative approach sees plants and seeds as lifeforms that need to be cared for, as a vehicle for reciprocity and better relations with our environment. Participants, who are asked to tend to and care for the plants as they grow, can be gently tricked³⁴² into unknowingly engaging with both approaches, and the result is small gardens that grow all over the place. Participants interested in cultivating a relationship with plants many not come in with the intention of accepting seeds for their capacity to heal contamination in their backyard soils, but this duality persists. Battle remarked that this is not

340. M. H. Saier., and Trevors, J.T. "Phytoremediation," *Water Air Soil Pollution* 205, (May 4, 2008): 63, accessed January 23, 2026, <https://doi.org/10.1007/s11270-008-9673-4>.

341. There are several sources online that outline general rules or guidelines for seed-saving. For example: "Seed Savers Exchange," Seed Saving: Introduction, accessed January 23, 2026, <https://seedsavers.org/learn/seed-saving/>.

342. Christina even said to me in my interview with her that it can be a kind of trickery for the broad public audience of a museum or gallery, for instance, but clearly not one of malice. Of course, there are always participants who have already grown their own gardens and engaged with the practice of seed-saving, so the project lands more naturally with them.

happening at the scale that is needed to confront pollution as a large-scale, global disaster. In an article discussing the political, environmental, and economic issues surrounding seed themselves, Battle also explains that the corporation Monsanto spent billions buying seed companies in the 1990s, creating a situation in which seeds themselves are privatized and monopolized.³⁴³ *Seeds are meant to disperse* speaks back to this capitalist expression of power. It exists as a micro-gesture that makes participants think about the possibility of creating less toxic and polluted worlds and reclaiming seeds as not-for-profit sources of exchange. In my conversation with Battle, we also discussed the rise of people owning an abundance of indoor plants. Most people purchase plants that have been grown by different stores, but Battle's series asks us to patiently grow plants from their seeds.³⁴⁴ Germination requires time, and perhaps in an age of quick-paced consumption and overindulgence, it can be challenging to embrace the slow process of seed-saving and germination. However, seed germination can result in everlasting seeds during future growing seasons, which in turn, can deal with issues like food supply or the monopolization of seed varieties. In the 2024 growing season, Battle noticed a huge abundance of parsnips in her own garden and began to include those seeds in her packs. I notice that in many of her seed pack guides, Battle mentions that the changing weather requires her to change how and when she saves seeds. She notes that perhaps the changing weather will strengthen the variety of some plants, and they will be able to withstand or succumb to weather conditions. Some scientific journals have even written that changing weather conditions will result in lower in nutrients like zinc, iron, or potassium in some plants.³⁴⁵ Battle's work suggests that paying closer attention to

343. Battle, "seeds are meant to disperse [to get to the future, a return to the past]," 71.

344. I would say we also playfully made fun of people who see plants only as an aesthetic for Instagram or other social media, without seeing the other kinds of benefits from growing plants.

345. Irakli Loladze, "Hidden shift of the ionome of plants exposed to elevated CO2 depletes minerals at the base of human nutrition," *eLife* 3, e02245 (May 27, 2014). <https://doi.org/10.7554/eLife.02245>.

changing conditions, and shifting when seeds are grown or which ones are prioritized is a way forward to confront the potentially harmful effects of drastic weather changes.³⁴⁶ In other words, her seed packs share the potential for the future.

The seeds are divided into a variety of plants: flowers, grasses, herbs/greens, vegetables (and sometimes fruits), tomatoes, peppers, and companion collections. Each plant has a short description including their maximum growth height, their scents, possible skin reactions, their place of origin, and more. Battle notes that the flower fireweed is native to most parts of ‘Canada’ and recommends that they be grown in a container if others do not want them to spread.³⁴⁷ She observes that sugar pie pumpkin seeds are great for making pies and they need space because they spread and require a long growing season.³⁴⁸ My favorite section is the companion collections which Battle began in 2022. These are groups of seeds that “offer support to one another in different (and generally specific) ways” as they grow. In other words, the plants complement each other. Together, the plants can improve soil health, attract insects, suppress weeds, or encourage pollination.³⁴⁹ For example, *Companion Collection #7* of marigold, lettuce, dill, and chives, can be grown indoors or outdoors, reduces pests, attracts more butterflies, and results in an herb garden. The seed packs are archived on the website, showing all of the seeds that Battle has shared as part of the project since 2015. The list of seeds grows as the years pass, and seeds from previous years are always saved when possible. Around the same time that I wrote this chapter, I received a gift from Battle with a small pack of blazing star seeds, a flower

346. Battle, “seeds are meant to disperse [to get to the future, a return to the past],” 80.

347. One of her projects in the following link actually encourages participants to plant fireweed in various public spaces and allow them to spread: Battle, “Flowers (2025),” *seeds are meant to disperse*, 2025, <https://seedsaremeanttodisperse.ca/flowers/>

348. Battle, “Vegetables (2025),” *seeds are meant to disperse*, 2025, <https://seedsaremeanttodisperse.ca/vegetables/>.

349. Battle, “Companion Collections (2025),” *seeds are meant to disperse*, 2025, <https://seedsaremeanttodisperse.ca/companion-collections/>.

that grows naturally in ‘Ontario,’ where I’m from. Battle saved these seeds from her organically grown garden across 2022 and 2024.

4.3.2 the zines

During the growing seasons, Battle disperses more than just seeds — she also shares resources in the form of zines. Since the beginning of the project, each zine has creatively documented information about growing and saving seeds. Battle categorizes the zines under the “resources” section on the series’ website, a page that ends with links to other resources that speak to the importance of seed saving, like an article about the potential for Peru’s potato museum to stave off starvation.³⁵⁰ Another article discusses seed saving as an act of resilience in the face of threats to the Earth’s food supply.³⁵¹ Considering the significance of seed saving for survival, Battle’s zines offer a wealth of information for individuals to save seeds on smaller scales, too. There are two terms that Battle uses throughout the zines from plant and environmental biology. The first is cold stratification, or the cold weather period required to initiate germination. My blazing star seed pack requires cold stratification to grow, which means I may need to begin germination in autumn. The other term is biennial, referring to flowers that grow in a two-year biological cycle, so the root structure, stems, and leaves grow in the first year, while the flowers, fruits and seeds arrive in the second year. What this means is that some plants take longer to grow, requiring you to pay attention to the various conditions that a seed needs in order to grow into a plant.

350. Dan Collins, “How Peru’s potato museum could stave off world food crisis,” *The Guardian*, November 29, 2019, <https://www.theguardian.com/environment/2019/nov/29/how-perus-potato-museum-could-stave-off-world-food-crisis>.

351. Van Gelder, “As Climate Change Threatens Food Supplies, Seed Saving is an Ancient Act of Resilience,” *YES! Magazine*, June 7, 2017, <https://www.yesmagazine.org/environment/2017/06/07/as-climate-change-threatens-food-supplies-seed-saving-is-an-ancient-act-of-resilience>.

Battle's 2022 zine *IT'S ALL ABOUT LETTUCE* documents her encounters with lettuce growing in her garden.³⁵² Battle has designed the zine to tell a story about lettuce, while also inviting viewers to gently consider the benefits of growing their own food gardens, perhaps including the lettuce. The zine notes that lettuce is in fact a common weed, and its early use was as an oil as early as six thousand years ago in Egypt. Iceberg lettuce gained popularity in the 1930s when refrigerators were mass-produced, as this type of lettuce stays crisp after being packed in ice. In the growing season of 2022, Battle noted that she did not plant much lettuce this year, but they started to crop up on their own likely because "the plants from last year must have dropped and spread some seed before [she] gathered them for saving." Environmental change in Amiskwaciy-wâskahikan indicates that the spring weather will be cooler, and wetter and the summer will feel wetter and hotter. This means that in the next twenty years the city will move into gardening zone 4B, having only been at gardening zone 2A since 2001. Gardening zones indicate whether plants are able to withstand cold temperatures: at zone 1, plants are hardiest and can withstand much colder winter temperatures than zone 5.³⁵³ Battle notes that "hardiness zone borders are shifting at an alarming rate."³⁵⁴ However, instead of presenting this as necessarily disparaging news, Battle implies that the knowledge of these weather changes can inform how we can grow healthy gardens that target food insecurity. Coupled with the fact that gardens can respond to toxins and pollution on a micro-level, the zine posits a garden as a part of imagining sustainable futures.

352. Battle, "It's All About Lettuce," accessed on December 9, 2025. https://cbattle.com/wp-content/uploads/2021/08/Lettuce-Book-8.5x11-Landscape_FIN_web.pdf.

353. Florissa, "Canadian Plant Hardiness Map by Zones," accessed on December 9, 2025, <https://florissa.com/canadian-plant-hardiness-map/>.

354. Battle, "seeds are meant to disperse [to get to the future, a return to the past]," 74.

IT'S ALL ABOUT LETTUCE reminded me of my Nana and Nani's³⁵⁵ garden at their home in Scarborough, Ontario, where they grow an abundance of tomatoes, lettuce, and different kinds of flowers, peppers, and herbs typically used in Punjabi meals. Every year, they offer tomatoes to me and my siblings, and I am always so surprised at how much more delicious those tomatoes are than store bought ones. I shared this story with Battle during our interview and she remarked that my Nana and Nani might have a good sense of the impacts of pollution and climate change by tending to their gardens seasonally. My Nana and Nani may not speak about it in terms of pollution, but if they notice the effects of more intense storms on the growth and taste of their tomatoes, then they are also attentive to the changing climate. I wonder, too, which flowers in their garden, paired with these vegetables and fruits in their garden, like the tomatoes, create healthy soils, and if the levels of toxic lead and other metals would be less than other gardens without an abundance of plants. Battle's zine indicates that this is probably true.

Some of Battle's zines also act as guides for saving seeds for future growing seasons. The first was created in 2020 for the participants of a project called *Ishtar's International Network of Feral Gardens* at the South Asian Visual Arts Centre (SAVAC) based in Tsi tkarón:to. This project invited an international group of artists, cultural workers, botanists, and food activists to plant and exchange seedlings and contribute to workshops and events throughout the 2020 summer growing season.³⁵⁶ Battle contributed a zine that explained when and how to spot seeds that are ready to be saved. She picked a few plants, such as lettuce, tomatoes, and radishes, to illustrate key differences between a variety of seed saving processes. Battle's background in both environmental biology and artistic practice comes through in the zine. It is a creative output,

355. Maternal grandparents in Punjabi.

356. South Asian Visual Arts Centre, *Ishtar's International Network of Feral Gardens*, Toronto, 2022, <https://savac.net/ishtar-2022/>.

combining photos and text, but the technical explanations of seed-saving clearly come from someone with a deep knowledge of plant biology. There is also something scientific about how Battle experiments with new seeds, documenting their ideal growing temperature, the best temperatures to store them at after being saved, and each seed's shelf-life. I know she's not in a science lab per se, but I can easily imagine her in a lab coat.³⁵⁷ Almost like a scientist, Battle is testing and checking her hypothesis, iterating on the best way to care for plants as they reveal new information to her. In the summer growing season of 2020, Battle experimented with saving the seeds from biennial vegetables: carrots, swiss chard, and beets. She writes:

Beets, chard and carrots require vernalization before they shift into their reproductive stages - that is, they require a cold spell of about 4°C. Which only adds to the mystery, because, if they somehow were actually planted last year, the cold winter would have killed them outright (they tend to only survive to -9 / -12°C). Somehow though, they are producing seed and I'm crossing my fingers they'll be ready by fall.³⁵⁸

It's clear that Battle's comfort with tracking and monitoring changes in plant growth extends beyond artistic research and practice. It's science, too. The result is that the zine created for *Ishtar's International Network of Feral Gardens* makes seed-saving more feasible for future gardeners. I, and I imagine many others, would feel intimidated by the use of scientific terms to describe seed-saving, but the zines make it feel like a creative process that someone can actively take part in, caring for a seed that will one day (hopefully) become a plant. As with most of Battle's projects, she revisited the zine four years later in 2024, re-publishing it with a focus on food insecurity and imagining future possibilities.³⁵⁹ The zine is essentially the same format, with some advice on saving seeds from new plants, though the role of gardening in planning for the

357. From what I know about Christina, this is probably not what she's aiming for, but I'll imagine it for my friend anyways!

358. Battle, "Seed Saving Guide: for participants of Ishtar's International Network of Feral Gardens (SAVAC)," accessed on December 9, 2025, https://cbattle.com/wp-content/uploads/2015/08/final-zine_sept24_FINAL_pages.pdf.

359. Ibid.

future feels more urgent. This is likely because environmental changes since 2020 have been increasingly intense, and why, in this zine, Battle proposes that “saving seeds can help us practice the future together.”

4.3.3 the projects

seeds are meant to disperse has resulted in several other projects. These other works are not part of the series, and it would be better to consider them offshoots of the original work and research that went into the series. They demonstrate Battle’s tendency to re-visit ongoing conversations. For example, her contribution to *Ishtar’s International Network of Feral Gardens* in 2020 rippled into a shared pack of mixed flower seeds that contained a prompt inspired by famous Fluxus artist Yoko Ono’s *Painting the Wind* (1961). Participants were asked to puncture a hole in a bag containing seeds and place it where there is wind. The idea is for the seeds to scatter through wind dispersal. Another offshoot work is a video installation called *seeds are meant to disperse* (2022). The video work is a two-channel video accompanied by ambient sounds of insects buzzing, wind, and texts about Battle’s encounters with gardens throughout her life, from her childhood in her grandmother’s garden to seed-saving today. What is most interesting about the video is how the pace simulates how gardening slows everything down. At some points the text on each screen replicates itself in different colours or lingers for longer, and the videos of flowers, plants, and insects land softly and slowly on my eyes. One clip shows Battle slowly, painstakingly separating and sorting through seeds. The video is also Battle’s response to the large-scale seed bank housed in Norway called the “Doomsday” seed vault.³⁶⁰ The Doomsday vault was created to save the seeds from crops that have been destroyed or cease to exist due to wars, bombing, and environmental change. The genetic information from each

360. Jennifer Duggan, “Inside the ‘Doomsday’ Vault,” *TIME Magazine*, April 6, 2017, <https://time.com/doomsday-vault/>.

plant is saved so that future crops can still grow, despite their places of origin no longer offering ideal conditions for seed survival. Battle notes that the necessity of the vault both frightens and excites her. Her video contextualizes the significance of save-seeding, while encouraging it on local and personal levels as a necessarily slow practice of combatting food insecurity. It also begs the question: could we all hold seed banks, if we too saved and shared seeds with others? Could we imagine our future based on sharing and collaboration?

Battle's other offshoot projects have focused on specific plants, almost like a collective reading of a given plant. For example, a recent iteration of *Reclaiming the Invisible* (2024) asked participants to plant and map sunflowers around the city and consider their relationships to the land. Project participants were students from the Community Service-Learning Class at the University of Alberta. After receiving packs of the sunflower seeds made and organized by Battle, the students were asked to map where they planted the seeds on an interactive map.³⁶¹ The map shows the different places where the seeds were planted, and some of the students wrote descriptions of where and why they planted seeds, and their expectations for the end result. One student planted the sunflowers in a pot in her apartment and gave them to friends. Another planted their seeds in a ravine during a walk with their mother, hoping that the seeds will enjoy the space as they did. What would it mean for more individuals to plant sunflowers around where they live? As mentioned, sunflowers are hyperaccumulators and phytoremediators, meaning they can take up several toxins from the dirt, offering remediation as they bloom across the region. Battle also co-led a "longitudinal and asynchronous" study of fireweed with writer Cecily Nicholson for 6 artists living across Edmonton and Vancouver called *Witnessing Fireweed*

361. Battle, *Collective Community Sunflower Map*. 2024. Digital Map. Edmonton, https://www.google.com/maps/d/u/0/viewer?ll=53.550988000000046%2C-113.4176304&z=11&mid=1wLIVirBarHNi1R61XWYgCYM_HIzh5Qw.

(2024). Fireweed is abundant and exists across ‘Canada’ and many parts of the Circumpolar North.³⁶² It is one of the first plants that grow where wildfires have burnt, and one of the first signs of life where glaciers have melted.³⁶³ Its proliferation informs the prompt for the project, asking participants: How do you notice fireweed? After planting the seeds, the participants were prompted to learn about fireweed collectively across the four seasons. This project is another strategy that encourages others to embrace the slowness of gardening, learning about how plants grow, and considering what they can tell us about ourselves and about the future. Battle notes that, “Saving seeds from plants that do well now, and then growing them again next year, allows one to anticipate the weather to come.” The potential to anticipate weather comes up in another series called *FORECAST*.

4.4 *FORECAST* series

Similar to *seeds are meant to disperse*, Battle’s *FORECAST* is an ongoing series and multipronged project, consisting of both writing and artistic works.³⁶⁴ In this section, I focus on two of the series’ artistic projects: *Learning the signals/Change is coming* (2021–) and *the air we breathe* (2023–). In both works, Battle engages with communities across geographies, offering them prompts to make sense of the drastic weather changes in their surrounding environments. Battle activated both *Learning the signals/Change is coming* (hereafter referred to as *Learning the signals*) and *the air we breathe* across communities in Tsi tkarón:to, Ktaqmkuk

362. Polar Knowledge Canada, "Insights from Indigenous knowledge holders and scientists on changing Arctic environments." *Government of Canada*, last modified December 9, 2025, <https://www.canada.ca/en/polar-knowledge/polar-blog-articles/insights-on-changing-arctic-environments.html>.

363. Emily Williams, “Meet the purple flower that thrives after wildfire — fireweed,” *CBC News: Edmonton*, August 4, 2023, <https://www.cbc.ca/news/canada/edmonton/fireweed-wildfire-flower-forest-reclamation-1.6923592>.

364. I have written about *Forecast* in another journal article in a different context. I will extensively cite that article in this section.

(‘Newfoundland’), Amiskwaciy-wâskahikan, Treaty One Territory (Winnipeg, Manitoba) and Moh-kîns-tsis (Calgary, Alberta). Like *seeds are meant to disperse*, this series is a product of her research on disaster. Battle’s works are also inspired by Black healer and writer adrienne maree brown’s³⁶⁵ notion of emergent strategy:

the way small actions and connections create complex systems, patterns that become ecosystems and societies. Emergent strategy is how we intentionally change in ways that grow our capacity to embody the just and liberated worlds we long for.

adrienne maree brown suggests that change can occur through small, collaborative actions. She encourages a shift away from “mile-wide, inch deep” activism towards actions that are “inch-wide, mile-deep.” This is to say, change cannot and does not only occur through mile-wide or large-scale, international or national programs, protests, events, or initiatives. She provides an example of her work on The Ruckus Society, a not-for-profit change-based organization that worked at these large-scales:

The best way I can explain this culture is penetrative. Rather than forming long-term partnerships with communities, Ruckus was in and out with mind-blowing, creative actions. This was in line with a model of action grounded in spectacle. The politics were radical and the actions historic, but there wasn’t a sense of community ownership or engagement in the work—which meant that at a fundamental level the power dynamic wasn’t changing. The communities still come to rely on someone else to change their situation.³⁶⁶

The focus here is critical mass, but brown suggests the focus should be on critical connections, which come about through inch-wide, local movements. Communities are then empowered to enact change in their own lives and work at varying scales. *Learning the signals* and *the air we breathe* do just that by encouraging participants to notice changing weather and increased air pollution from wildfires and other industrial activity. brown’s ideas resonate with Liboiron’s

365. Name of author intentionally lowercase.

366. adrienne maree brown, *Emergent Strategy: Shaping Change, Changing World*. (Chico, California: AK Press, 2017), 61.

argument that pollution action must be specific and place-based, as well as Indigenous feminist ontologies that invite investment in local communities and organizations. In this section on *Learning the signals and the air we breathe*, I consider these ideas around local, community work to analyse how Battle's work encourages participants to notice their surroundings, empowering them to understand the complexities of air pollution and changing environments.

4.4.1 Learning the Signals: Change is Coming

Battle activated *Learning the signals* in Tsi tkarón:to and Ktaqmkuk, two vastly different geographies and climates on the eastern side of 'Canada.' This project was first created as part of the 2021 Bonavista Biennale, *The Tonic of Wildness*, held in Ktaqmkuk. Battle explains that she created this project to gain a sense of the weather in Ktaqmkuk, having not travelled to the region herself, inviting local participants to take part in the project through the Bonavista Biennale's programming. *Learning the signals* began with what Battle calls "considerations," which are generously shared with participants of the project. The goal was to support participants as they make observations about the changing summer weather in Ktaqmkuk. The considerations included scientific data, maps, images, quotes from literature specific to the region, and her own observations about the changing weather. Due to her unfamiliarity with the area, she used satellite images from Google Maps as part of the considerations for participants. Battle also included her own anecdotes, such as "The Impacts of Climate Change are Not Equally Distributed," "smells become wet before a storm," and "when clouds are fluffy, prepare for bad weather" [Figure 20]. Another consideration took the form of a map that showcased research on nine ecoregions of Ktaqmkuk, Nitassinan, Nunatsiavut, each with its own specific weather, and a map of temperature changes at the mid-century mark. The research reported that the most drastic weather changes in the future will be felt in the winter, when Nain and Happy Valley-Goose Bay

will experience 7.3 degrees Celsius and 6 degrees Celsius warmer winters respectively.³⁶⁷ The questions that instigated participant observations were, “What does the future taste like? Smell like? Feel like?”

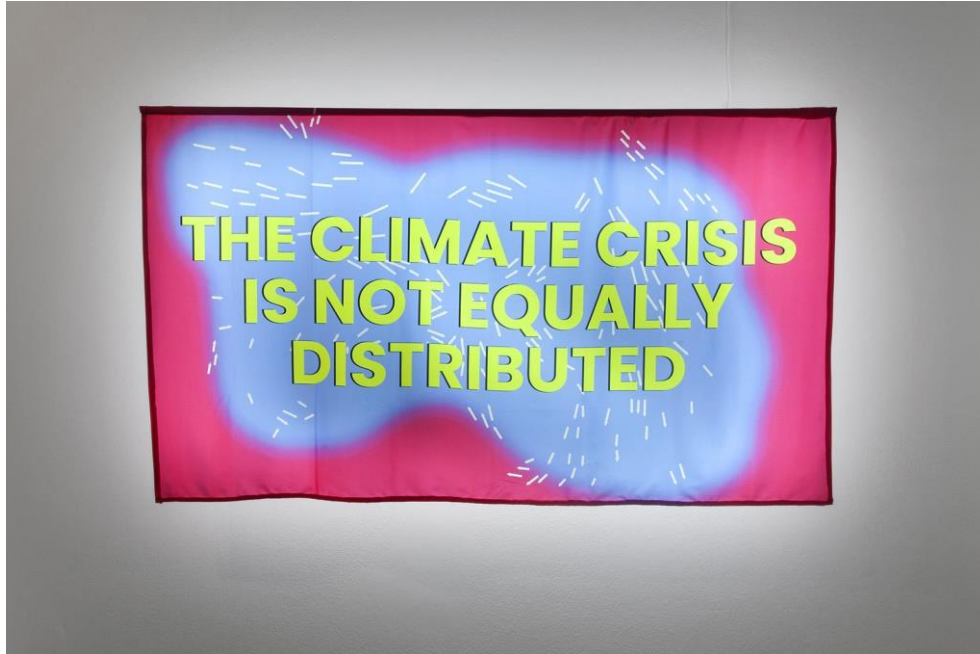


Figure 20: Christina Battle, *FORECAST*. 2024. Exhibition installation photos at Gallery 1CO3. Example of banners. Photo by Karen Asher, courtesy of Gallery 1CO3 (University of Winnipeg).

After looking through Battle’s considerations, all fifty-three participants filled out a survey reflecting on their experiences of the weather on between one to three different days before June 30, 2021. Some of the survey questions included: “in 3-4 words describe the weather today,” “which image best represents the cloud cover today,” “which words best describe the clouds today,” and “when you step outside, or sit near an open window: what does the air smell like today?” Across the board, participants made similar remarks about the weather, noting that it felt “sunny, wet, cloudy,” “bright, warm, calm,” and “overcast, quiet, damp.” They remarked that the air tasted lemony, tart, or citrusy, and often compared it to the taste of food, like “soup

367. Battle, “Step one (considerations),” in *Learning the Signals/Change is Coming*, 2021, Participatory Project. Bonavista Biennale, Newfoundland and Labrador, <https://fore-cast.ca/step-one/>.

on a day you wanted a salad” and “white meringue.” After receiving these observations, Battle combined those felt experiences into a kind of algorithm, or more appropriately, what I see as an anti-algorithm. Put simply, an algorithm is a step-by-step procedure for solving and better understanding a problem that may be used to generate results and data for, say, a website or online platform. However, Battle moves away from general considerations of algorithms, typically seen as computerized data collections especially in the context of weather. These algorithms tend to reproduce and map out different kinds of constructs of weather, which allow meteorologists to further deduce atmospheric conditions or changes. Instead, Battle builds a human algorithm based on senses, relations, and experiences, where the data is based on actual human experiences. Battle’s algorithm takes the participant’s observations to generate a prediction that the weather in Ktaqmkuk for the summer of 2021 will be “hotter and wetter weather, with more frequent storms.”³⁶⁸

This prediction from Battle’s algorithm and the participant observations are aligned with scientific predictions of weather on the East Coast of ‘Canada’ as it becomes more at-risk of severe weather, like thunderstorms and hurricanes. This shows that when others take the time to notice their environmental surroundings, they can offer insights into drastic weather changes led by grassroots work. It also demonstrates an alternative to the top-down, national or international organizations, like Environmental Canada, that we have come to rely on, which present the weather and the environment with little regard for how severe weather affects other animals and plants. In a previous article, I wrote that severe weather alerts and other weather-related regulations are extremely important but turning to our own senses to gain a kind of competency

368. Battle, “Observations,” in *Learning the Signals/Change is Coming*, 2021, Participatory Project. Bonavista Biennale, Newfoundland and Labrador, <https://fore-cast.ca/observations/>.

at understanding environmental changes, beyond dominant models, is part of imagining survival in the future within our own local communities. Battle's prompt, asking participants to feel, taste, and smell the weather, encourages them to engage with the weather in a more relational way [Figures 23-25]. It speaks to Indigenous feminist ontologies of the waterways that see relationality between lives (including non-human lives) as integral to the well-being of all. Taking this further, Battle's use of algorithms generates an interdisciplinary approach to weather changes that is rooted in relationality between people and their environments. *Learning the signals* suggests that this relationality is part of envisioning what life can be like in the face of disasters, like pollution and extreme environmental conditions.

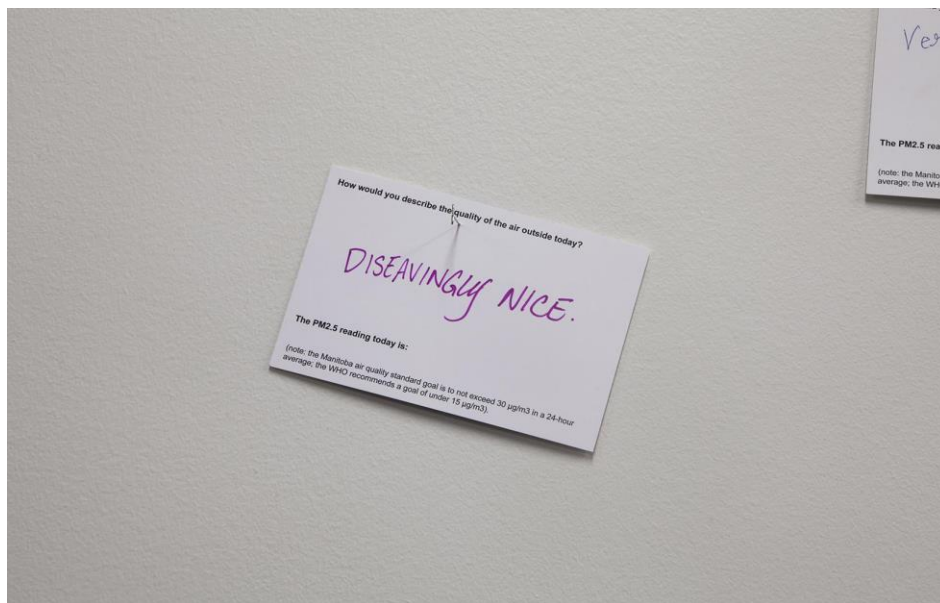


Figure 23: Christina Battle, *FORECAST*. 2024. Exhibition installation photos at Gallery 1CO3. Example of postcard prompts. Photo by Karen Asher, courtesy of Gallery 1CO3 (University of Winnipeg).

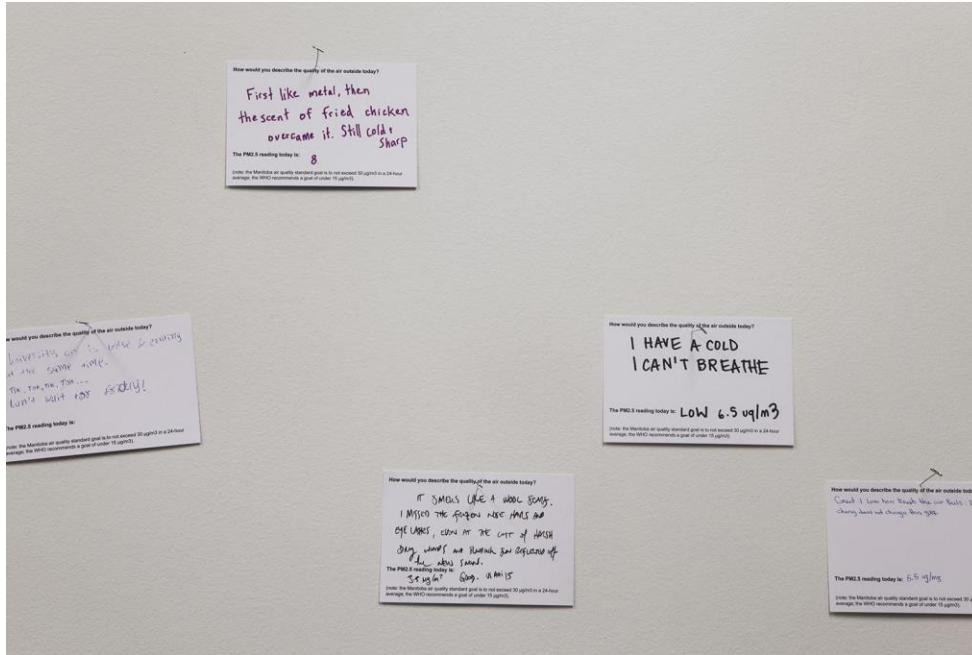


Figure 24: Christina Battle, *FORECAST*. 2024. Exhibition installation photos at Gallery 1CO3. Example of postcard prompts. Photo by Karen Asher, courtesy of Gallery 1CO3 (University of Winnipeg).



Figure 25: Christina Battle, *FORECAST*. 2024. Exhibition installation photos at Gallery 1CO3. Example of postcard prompts. Photo by Karen Asher, courtesy of Gallery 1CO3 (University of Winnipeg).

Writing about Battle's billboard project exhibited as part of *The Work of Wind: Air, Land, Sea* (2018) in Mississauga, scholar Gabrielle Moser explains that the project insists that viewers

see climate change as a product of environmental racism that has permeated the British Empire for almost 400 years.³⁶⁹ It is interesting to consider how Battle's project captures and evokes different experiences of environmental catastrophes, like pollution, across geographies. While regions will experience pollution and environmental changes in vastly different ways, Battle's project encourages collaborative and community-oriented actions of noticing and witnessing in two places, like Tsi tkarón:to and Ktaqmkuk. The output is that participant observations match scientifically derived weather predictions quite accurately regardless of the region. Flipping the approach to data collection towards collaborative methods did not result in inaccurate insights of the weather in the region. This points to the importance of creative, artistic engagements with environmental issues and how they amplify and complement scientific perspectives and research.

4.4.2 the air we breathe

Similar to *Learning the signals, the air we breathe* (2023) is focused on participant observations, but this time the project asks participants to notice the quality of the air around them [Figure 22]. Continuing Battle's method of collaboration as a strategy for data collection, this project begins with the artist's personal storytelling and speculative imaginings, with less emphasis on predicting future conditions. Battle proposes actions of smell and memory to instigate insights on air pollution in specific regions. One of the goals in this work is to highlight the "[...] unequally distributed impacts of air pollutants across geographies [...]" throughout 'Canada.'³⁷⁰ She cites an environmental research article that analyses the disparities between single pollutants and cumulative air pollution in 'Vancouver,' Tsí tkarón:to, and

369. Gabriel Moser, "Surviving the End of the World: Colonialism and Climate Change in the Work of Christina Battle and David Hartt," *esse arts + opinions*, no. 100 (August 12, 2020): 44, <https://id.erudit.org/iderudit/93867ac>.

370. Christina has more recently activated *the air we breathe* in 'Houston, USA.' It's mostly been activated in 'Canada' and this dissertation looks at this country, so I analyze on those iterations.

Tiohtià:ke/Mooniyang ('Montreal').³⁷¹ In 'Vancouver,' Indigenous peoples, racialized communities, and low-income residents experience the most inequality in terms of cumulative air pollution. In Tsi tkarón:to, mostly low-income and racialized peoples experience higher levels of exposure to pollution, and in Tiohtià:ke/Mooniyang, racialized and immigrant communities face larger air pollution burdens. *the air we breathe* begins with this critique of environmental racism and leans into collaborative actions of smelling and breathing. Battle's work can be read as a form of environmental justice, but I argue that an emphasis on interdisciplinary work from a perspective of Indigenous feminist notions of confluence more accurately captures the multiple facets of her practice. *the air we breathe* has been activated in several locations, but I analyse the 2022 iteration during the project's research phase in Amiskwaciy-wâskahikan and the 2023 version in Moh'kinstsis ('Calgary').



Figure 22: Christina Battle, *FORECAST*. 2024. Exhibition installation photos at Gallery 1CO3. Example of banners. Photo by Karen Asher, courtesy of Gallery 1CO3 (University of Winnipeg).

371. Kaitlin Castellani, and Amanda Giani, "Cumulative air pollution indicators highlight unique patterns of injustice in urban Canada," *Environmental Research Letters* 15 (December 15, 2020): 2 <https://doi.org/10.1088/1748-9326/abcac5>.

Over a period of weeks, Battle provided participants with prompts in the form of quotes, texts from literature and articles, and scientific data and research. One prompt from week one of the 2022 Amiskwaciy-wâskahikan iteration states “data from monitoring stations show the Edmonton area has some of the worst air quality in the province,” and another prompt notes that “a bad smell can signal potential risks to human health.” A third prompt, pointed out the inconsistencies in monitoring air pollution in Amiskwaciy-wâskahikan:

The industrial zone between Edmonton and Sherwood Park is the only area in what’s known as the capital airshed that is not actively monitored by the non-profit organization Alberta Capital Airshed [...]. One monitoring station is run by the government and four are run by industry. Two industry stations and the government station provide their data to Alberta Capital Airshed, while two industry stations do not.³⁷²

And other prompts tease out the issue of environmental racism in Canada, such as:

The disproportionate exposure of Black and brown Americans to pesticides, smog, poorly ventilated spaces, gas leaks, and military experiments with mustard gas illustrates how differential deodorization distributes toxicity along racial lines. How do we both make slow violence visible yet also challenge the privileging of the visible?³⁷³

In week two, participants in both regions were asked to take in their surroundings guided by Battle’s prompt: “How to see it. How to smell it. How to feel it” [Figure 19]. After working through the prompt, participants were given a toolkit to complete and asked to fill out a survey of their observations. The toolkit included postcards that the participants could mail back to Battle. For example, during week three of the 2023 Moh'kínstsis iteration, a postcard read, “The air we breathe is sacred, what affects one of us affects all of us.” The prompt on the back of the

372. Battle, “[Week 1] Some things to consider this week,” in *Learning the Signals/Change is Coming*, 2021, Participatory Project, Bonavista Biennale, Newfoundland and Labrador, <https://fore-cast.ca/the-air-week-one-background/>.

373. Battle, “[Week 2] Some things to consider this week,” in *Learning the Signals/Change is Coming*, 2021, Participatory Project, Bonavista Biennale, Newfoundland and Labrador, <https://fore-cast.ca/the-air-week-two-background/>.

postcard asked participants to consider a site in their neighborhood that contributes to air pollution. Then, they were asked to map their proximity to that location to further consider the way the air moves to them. Week three's toolkit also included a blue freesia candle, which Battle invited participants to burn and intentionally notice the smell as they filled out a survey [Figure 21]. The prompts allude to the value of community-led approaches to noticing pollution through micro-gestures, such as smelling and breathing.



Figure 19: Christina Battle, *FORECAST*. 2024. Exhibition installation photos at Gallery 1CO3. Example of banners. Photo by Karen Asher, courtesy of Gallery 1CO3 (University of Winnipeg).



Figure 21: Christina Battle, *FORECAST*. 2024. Exhibition installation photos at Gallery 1CO3. Examples of beeswax candles. Photo by Karen Asher, courtesy of Gallery 1CO3 (University of Winnipeg).

In another article, I have explained that air pollution is ignored because the air we breathe is invisible to the eye.³⁷⁴ As Battle notes, monitoring and measuring the impacts of air pollution is complicated due to its in/visibility. It becomes hyper-visible through slow violence, manifesting as higher rates of cancer or birth defects in newborn children. But, at times, it is hard to literally see and smell. Data collection by calculating the risk of disease or graphing the percentage of pollutant accumulation is significant, but the way air pollution moves and is felt is more difficult to measure due to its in/visibility. That, and the fact that pollution is measured in slightly dubious ways, like with assimilative capacity. In *the air we breathe*, the act of breathing in one's surroundings allows participants to make the issue of air pollution visible and opens possibilities for observations based on scent and breath. These observations offer accurate lived experiences of pollution, especially for those who experience it in more complicated ways.

Both projects imagine what policymaking and regulations could look like if we combined artistic and scientific fields of research. Battle's approach to algorithms and data collection that prioritizes observations comes up against a common practice in the sciences that removes human agency from the participant observation research method. Typically, the researcher's interpretations and goals are privileged, whereas in Battle's processes she seeks a balance between her goals and the participant's experiences of changing weather. Battle's ongoing research on the effects of pollution on various communities encouraged me to think about my own upbringing in suburban neighborhoods in and around Tsi tkarón:to in predominantly diasporic South Asian, African, and Caribbean communities.³⁷⁵ Most of the neighborhoods were built near and around factories, known sites of industrial air and water pollution. To make

374. Sihra, "Breathing in Disaster: Christina Battle's Forecast," 38.

375. *Ibid.*, 37.

matters worse, the cities regularly clear green spaces and forests, building commercial plazas and residential buildings to make way for the growing population. I wonder how Battle's practice, if activated in this area, might hint at the need for more research in this region.

The prioritization of community or ground-level insights into air pollution is especially crucial given the gaps in research on environmental justice that makes it difficult to bring these insights into assessment and planning. First, environmental justice investigations are not consistent across countries, and there are variations in the exposure to pollutants and the related health impacts. The concentration of Canada's ambient air pollution is low compared to the rest of the world, but there are significant health differences from exposure to lower concentrations of pollutants and toxins.³⁷⁶ Secondly, research often misses the cumulative impacts of multiple pollutants and stressors on communities.³⁷⁷ This research explores environmental health harm based on single pollutants or sources, rather than providing a comprehensive look at all of the factors that further complicate exposure to pollution. Battle's practice comes up against these challenges of environmental justice research and tries to understand the various factors that contribute to one's experience of pollution. This echoes a more intersectional look at pollution that takes together factors like race, age, income-level, region, and gender which can complicate the effects of pollution on communities. In other words, Battle's participatory approach can reveal stressors and the nuances in communities' perspectives that may otherwise be overlooked.

4.5 How to FORECAST and save seeds in exhibitions

Curating Battle's work into an exhibition requires some strategy because it mixes disciplines and includes participatory engagement. Battle discussed this at length when she was

376. Castellani and Giani, 4.

377. Ibid.

asked to curate her own work in a 2024 show called *Listening to the Land* at the Fine Art Building Gallery (FAB) in Amiskwaciy-wâskahikan. Speaking about her *seeds are meant to disperse* project, Battle explained that she was concerned about exhibiting the work in a gallery space as the gallery “[...] isn’t always conducive to meeting the needs of living material.”³⁷⁸ She also wondered about how the participatory nature of the project could thrive in institutions that typically lack the resources to support ongoing collaboration and participation, a foundational element of *seeds are meant to disperse* and *Learning the signals*. Most exhibitions and galleries privilege the visible, and visitors are expected to enjoy the aesthetics of a given work. However, Battle’s pieces require more than visual consumption as a means of engagement. Recently, I participated in *BAD STARS* (2018) as part of Battle’s solo exhibition *Under Metallic Stars* (2024) at Museum London in ‘London, Ontario.’ Battle invited an interdisciplinary group of contributors to provide an image of what they consider to be disaster, with the aim of presenting multiple perspectives on different scales. The work required its audience to sit and think through each response, taking in each image not necessarily as an aesthetic practice. Battle’s work brings forward the following questions: how and where should these interdisciplinary projects be shown and exhibited? In gallery and museum spaces, in contemporary art exhibitions, discussed within the context of scientific exhibitions, or shared in journal articles or scholarly research? In the next chapter, I dive into the Synthetic Collective’s exhibition *Plastic heart: Surface all the way through* (2021/2023), what I see as an estuary for interdisciplinary work in gallery settings.

378. Battle, “listeningtotheland: What does can a curator do?” *Fine Art Building Gallery*. May 2024, 4, https://www.ualberta.ca/en/art-design/media-library/gallery/exhibitions/what-does-can-a-curator-do_christina-battle.pdf.

Chapter 5 AN ESTUARY, OR CURATING POLLUTION

*Definition of estuary: a water passage where the tide meets a river current*³⁷⁹

379. Merriam-Webster, “Estuary,” accessed December 6, 2025, <https://www.merriam-webster.com/dictionary/estuary>.

5.1 Anchoring III: Learning from Kirsty Robertson

Jasmine Sihra: I'm asking everyone this. It's going to sound cheesy and it's going to sound probably like a very romanticized thing. That's maybe who I am, as I'm learning. Where does love place in your work?

Kirsty Robertson: Oh, I don't think that's cheesy at all. I love the natural environment and want to protect it. Of course, it's the people I love, the people I work with, the collaborations, the relationships that have come out of it. But the bottom line for me is that I hate seeing trash in the river. I hate seeing plastic on the shores of Lake Huron. It's physically painful for me to see those things. And for a long time, I wanted to be involved in what I would call big activism, like big movements. I think they're important, but it just was not sustainable for me. And here [at the Centre for Sustainable Curating] is something where Western has been incredibly supportive and has allowed me to feel like I am doing something that is having an impact. But then they asked me to quantify it, and I can't – I can't say specifically how many galleries have stopped using vinyl lettering because of the CSC. I actually think love is a better metric, it is whatever the opposite of a metric is, but it is also a feeling. For me, it is a love of land, atmosphere, trees, all of that. That is underlying everything I do.³⁸⁰

Perhaps humans' core function is love. Love leads us to observe in a much deeper way than any other emotion [...] If love were the central practice of a new generation of organizers and spiritual leaders, it would have a massive impact on what was considered organizing. If the goal was to increase the love, rather than winning or dominating a constant opponent, I think we could actually imagine liberation from constant oppression. We would suddenly be seeing everything we do, everyone we meet, not through the tactical eyes of war, but through eyes of love. We would see that there's no such thing as a blank canvas, an empty land or a new idea— but everywhere there is complex, ancient, fertile ground full of potential.³⁸¹

380. Kirsty Robertson in discussion with the author, February 29, 2024.

381. adrienne maree brown, *Emergent Strategy: Shaping Change, Changing World*, (Chico, California: AK Press, 2017), 10.

The final chapter of my dissertation explores the following question: what are the possibilities for art galleries, museums, or other cultural institutions to showcase interdisciplinary issues around pollution? One possibility is illustrated by the Synthetic Collective’s work and research on plastic pollution across the Great Lakes, which eventually culminated in the collective’s exhibition *Plastic Heart: Surface all the way through* (Tsi tkarón:to, 2021; Paris, 2023). I first learnt about the Synthetic Collective through my mentor and former professor Dr. Kirsty Robertson when she, along with several artists, scholars, and scientists had just formed the collective at Western University in 2016. During classes in my undergraduate degree taught by Robertson, I learnt to value DIY, bottom-up, experimental spaces as sites of innovation and invention of creative solutions to the issue of plastic pollution. As an undergraduate student, I watched the collective begin with their investigation of the large-scale issue of microplastics and plastic pellets — colloquially known as mermaid tears. This evolved into an interdisciplinary collaboration that characterized plastic pellet pollution on beaches around each of the Great Lakes. I have closely studied their 2021/2023 exhibition, *Plastic Heart: Surface all the way through* (“*Plastic Heart*”), to try to understand what it means to relate to plastic waste. In thinking through the consequences of plastic pollution on human and non-human life, the collective *could* have taken an approach that looked at plastic from an antagonistic lens, demonizing a material that has made its way into every part of our lives and has become the heart of humanity. Instead, the exhibition attends to plastic in its various forms — as an artistic medium; protection around an artwork; as a container of memories;³⁸² a scientific object; a symbol of pollution; or a reminder of exclusion, marginalization, and even liberation. Taking cues again from Barker’s notion of confluence, I argue that *Plastic Heart: Surface all the way*

382. Sara Ahmed, “What’s the Use?: On the Uses of Use,” (Durham: Duke University Press, 2019), 37.

through (2023) develops a sustainable curatorial practice that seeks to relate to waste, specifically plastic and plastic pollution, as a form of kin. I consider how the exhibition demonstrates sustainable curatorial practice in its: selection of artworks and objects, embrace of residues and remnants of previous works, consideration of plastic as a material that transcends political borders; and resistance to linear progressions of time. I focus on the iteration in Paris, France at the Canadian Cultural Centre³⁸³ in 2023, because I visited this exhibition in-person, but this paper makes important comparisons with its previous iteration at the University of Toronto's Art Museum (UofT Art Museum)³⁸⁴ in 2021.

5.2 The Synthetic Collective

The Synthetic Collective (SC) is an interdisciplinary collective of visual artists, cultural workers, and scientists. SC produces exhibitions, projects, and articles based on their research about the impacts and complexities of plastics, industrial plastic pellets, and micro-plastics in the Great Lakes region. Through their research, SC seeks to “[...] better connect scientific knowledge with potential cultural imports and enrich artistic production with informed science. [...] Our intent is to follow plastics through from production and consumption to disposal and disaggregation.”³⁸⁵ The collective includes: Patricia Corcoran, a Professor in the Department of Earth Sciences at Western University; Ian Arturo, an earth scientist who received a Master of Science (MSc) from Western University; Sara Belontz, a postdoctoral researcher at California State University, San Marcos, with a PhD in Geology from Western University; Heather Davis,

383. The Canadian Cultural Centre in Paris is an institution that promotes Canadian art in France.

384. University of Toronto's Art Museum is a museum with a focus on contemporary art at a local and international level.

385. Ian Arturo, Sara Belontz, Patricia Corcoran, Heather Davis, and Kathleen Hill, "PLASTIC HEART: A DIY Fieldguide for Reducing the Environmental Impact of Art Exhibitions," The Synthetic Collective, last modified, 2021, https://syntheticcollective.org/wp-content/uploads/2021/06/PlasticHeart_DIY_Fieldguide-2.pdf, 2.

an artist, writer, and Assistant Professor of Culture and Media at The New School; Kathleen Hill, a researcher and Associate Professor of Biology at Western University; Kelly Jazvac, an artist and Associate Professor in Studio Arts at Concordia University; Lorena Rios Mendoza, an Associate Professor of Chemistry in the Department of Natural Sciences at the University of Wisconsin Superior; Tegan Moore, an artist based in Tiohtià:ke/Mooniyang (Montréal, Québec); Kirsty Robertson, a Professor in the Department of Visual Arts at Western University; and Kelly Wood, an artist, scholar, photographer, and Professor in the Department of Visual Arts at Western University.³⁸⁶

The collective collaborates and highlights each other's work, research, and articles. During my interview with Kelly Jazvac, she explained that the collective's research began with her and Patricia Corcoran's shared interest in plastic pollution which led to their first project: the description of "plastiglomerate," a series of objects that Corcoran and Kelly found through research at Kamilo beach on the island of Hawai'i.³⁸⁷ Plastiglomerates are essentially stones that have fused together with plastic materials due to exposure to heat and compression, creating one multi-composite object. The plastiglomerates have been presented as artistic ready-mades by Kelly Jazvac and as evidence of plastics' geological impact and potential signification of the epoch of the anthropocene. The beginning of the anthropocene was not proven with the plastiglomerate; however, a stone that is partially composed of plastic is a clear indicator that plastic pollution has irrevocably altered the chemistry and composition of the natural environment. Plastiglomerates have, in fact, been found on many beach shores globally.³⁸⁸ Kelly

386. I have been following SC throughout my academic career, and I even wrote a Wikipedia article about the collective as part of WikiEdu in hopes of publicly raising awareness about their important work "The Synthetic Collective," Wikipedia, last modified April 24, 2023. https://en.wikipedia.org/wiki/The_Synthetic_Collective.

387. Patricia Corcoran, Kelly Jazvac, and Charles Moore, "An anthropogenic marker horizon in the future rock record," *GSA Today* 24, no. 6 (June 2024): 4, accessed January 24, 2026, <https://doi.org/10.1130/GSAT-G198A.1>.

388. *Ibid.* 7.

introduced Corcoran to other colleagues with similar interests in waste and pollution, and the group began collaborating after receiving small seed grants to explore potential synergies. Since then, many of their scientific articles have been written by the scientists of the collective, with some contributions from their Arts collaborators. Other articles about the collective's research have been written by the art criticism, critical theory, and museum studies scholars of the group. Despite working in different fields, they all contributed to the curatorial content of both iterations of *Plastic Heart*. Jazvac mentioned that the collective works well together, and difference of opinions has been generative rather than something to be avoided.³⁸⁹ Of course, disagreement over opinions, especially in a group with strong expertise across disciplines, is always possible. Jazvac explains that the group has had to confront conflict from outside perspectives, too:

We've had critiques on our politics — us being too radical or too overt in injustice issues that we feel strongly about. Not all researchers are comfortable with that. Especially in the sciences you're supposed to have this objective premise to the research that you're doing which, of course, we know is never entirely objective. There's always some kind of contextual influence, whether you choose to acknowledge it or not. But I think the benefit of working in a group, when we're all sitting at the table and talking, and I don't understand something, everyone can fill in that understanding for me in a way that somehow even makes it richer. It's not just learning the answer: they help me, they bring me along and open it up in terms of where we could go with the sort of groupthink on it. And we have so many zooms where we're sitting with an ethical question about, what do we do? Or a scientific question, what is the best way to do something? What words to use, what words not to use?³⁹⁰

It is important to note that most members of SC identify as white and/or settlers and acknowledge that they conduct work on waterways that have been historically traditional and sacred sites for many First Nations communities. I argue that SC exercises what white settler scholars Leah Decter and Carla Taunton call the “quadruple turn”: a method of decolonial

389. Sara L. Belontz, Patricia L. Corcoran, Heather Davis, and Kathleen Hill, “Embracing an interdisciplinary approach to plastics pollution awareness and action,” *Royal Swedish Academy of Sciences* 48 (2019): 855, <https://doi.org/10.1007/s13280-018-1126-8>.

390. Kelly Jazvac in discussion with the author, November 28, 2023.

questioning that foregrounds the intergenerational responsibility of “using their own labour to bring about decolonial change.”³⁹¹ Decter and Taunton expand British/Australian feminist scholar Sara Ahmed’s notion of the double-turn by offering the quadruple turn as a way for white/settler individuals to work as accomplices, co-conspirators, and co-agitators within the struggle for decolonization.³⁹² Decter and Taunton’s highlight that decolonial change cannot only be the responsibility of Indigenous, Black, and People of Colour, and offer a series of questions that white/settler individuals can ask themselves to bring about meaningful change through their own work. SC exercises Decter and Taunton’s third and fourth “turns” through the work around the Great Lakes: 3) turning between/making connections, and 4) turning to act/ivation: mobilizing praxis.³⁹³ SC makes broad connections around plastic pollution to understand plastic as both a symptom of settler colonialism and part of its expansion. *Plastic Heart: Surface all the way through* (Paris, 2023) included works by Kanien’kehá:ka artist Hannah Claus, Anishinaabe artist Nico Williams, and Mi’kmaq artist Meagan Musseau, who all highlight relationships to waterways from different Indigenous cultures. The exhibition also featured Burkinabe artist Nyago Leon Ouedraogo whose photographs showcase the effects of plastic pollution on health in Africa. These works demonstrate that plastic pollution an environmental issue and caught up in political issues of racism and Indigenous sovereignty.

Thinking about plastic through the lens of various disciplines encourages SC to frame it as a material that touches all parts of human and non-human lives. Feminist phenomenologist Astrida Neimanis teases out the significance of reimagining relations to non-human kin when

391. Leah Decter and Carla Taunton, “An Ethic of Decolonial Questioning: Exercising the Quadruple Turn in the Arts and Culture Sector,” in *The Routledge Companion on Indigenous Art Histories in the United States and Canada*, eds. Heather Igloliorte and Carla Taunton, (New York; London: Routledge, 2023), 248.

392. Ibid.

393. Ibid., 244, 255.

they ask, “What does telling the story of humans in relation to more-than-humans in one way, rather than another [...] mean for how these stories will unfold?”³⁹⁴ Neimanis notes that these stories that depict the interrelated lives and histories of both humans and more-than-humans can offer future imaginings around which species will thrive and which will not, in turn encouraging us to understand our own responsibility and accountability to others. Taking Neimanis’ argument’s further, how do we reconcile our own human lives which are so entangled with plastic? SC offers an exploration of this question by making visible the myriads of ways that human life is bound to plastic pollution.

SC explicitly acknowledges that Indigenous peoples have been protectors of the Great Lakes and that SC holds themselves “accountable to these communities and to do the work of decolonization which must extend far beyond land acknowledgments.”³⁹⁵ By conducting research and presenting it publicly through exhibitions, SC highlights the importance of protecting these waterways and, ultimately, advocates for action against the ongoing pollution of the lakes. As such, SC exercises Dector and Taunton’s fourth turn of act/ivation, whereby they work meaningfully to activate their intergenerational responsibility.³⁹⁶ As a group of white settler scholars, SC’s work takes on the responsibility of addressing plastic as a harm to ecosystems and human lives who rely on the Great Lakes, including FN communities. Their work exposes the power dynamics that underlie pollution caused by ongoing colonial legacies which means that racialized and Indigenous communities are more exposed to plastic pollution. Aligned with Indigenous feminist ontologies of waterways, Neimanis has written that thinking with water is

394. Astrida Neimanis, *Bodies of Water: Posthuman Feminist Phenomenology*, (New York: Bloomsbury Publishing, 2019), 13.

395. Arturo et al., 6.

396. Dector and Taunton, 256.

part of how one can “... respond to the wounds of other bodily waters...”³⁹⁷ Here, Neimanis is referring to all, humans and non-humans, as being of and made of water.

5.3 The Great Lakes and Plastic Pollution

The five Great Lakes, sometimes referred to as The Laurentian Great Lakes, include: Lake Ontario, Lake Huron, Lake Erie, Lake Superior, and Lake Michigan.³⁹⁸ They are a freshwater resource for communities living in ‘Ontario’ and straddle the colonial border between ‘Canada’ and ‘United States.’ Any environmental issues in these lakes present significant issues for overall quality of life for a huge number of people. The rate at which plastic waste is accumulating in bodies of water globally, including in the Great Lakes, far exceeds the accumulation of any other form of waste in any other environment. Microplastics make up a large percentage of the plastic waste found across the Great Lakes, as proven by a 2020 study that analyzed 12, 595 plastic pellets found across 66 beaches, with 86% of these pellets found on Rosspoint Beach (Lake Superior), Baxter Beach (Lake Huron), and Bronte Beach (Lake Ontario).³⁹⁹ Microplastics are plastic pieces with a diameter of less than five millimetres, and they are particularly insidious because they continuously break down and crack due to water wave pressure and photodegradation, but they never biodegrade.⁴⁰⁰ As a result, there is much evidence to suggest that plastic debris is reshaping human life as well as relations between human and non-human entities.

397. Neimanis, 170.

398. FN communities who rely on these waterways have called them by many names, and the Great Lakes are not among them. For the simplicity of this chapter, I refer to these bodies of water as the Great Lakes to be consistent with the Synthetic Collective’s exhibition, work, and research.

399. Patricia L. Corcoran, Johanna de Haan Ward, Ian A. Arturo, and Sara L. Belontz, “A comprehensive investigation of industrial plastic pellets on beaches across the Laurentian Great Lakes and the factors governing their distribution,” *Science of The Total Environment* 747 (December 2020): 1. <https://doi.org/10.1016/j.scitotenv.2020.141227>.

400. Heather Davis, *Plastic Matter*, (Durham: Duke University Press, 2022), 84.

Plastic pollution and environmental issues in the Great Lakes are especially harmful for FN communities who have been protectors of the Great Lakes since time immemorial. For many FN's who live near the lakes, these waterways are culturally and spiritually significant, and they have been sites for intergenerational knowledge and learning. Approximately 120 FN communities have lived in the Great Lakes basin since time immemorial.⁴⁰¹ As of 2011, approximately 75 FN communities inhabited areas around the Great Lakes.⁴⁰² These communities include: the Bodwéwedmimwen (Potawatomi), the Omāēqnomenew-ahkew (Menominee), the Odawa, the Michi Saagiig (Mississauga), the Hoocąk (Ho-Chunk), the Onöndowa'ga:' (Seneca), the Gayogohó:no' (Cayuga), the Onayotekaono (Oneida), the Kanien'kehá:ka (Mohawk), the Ojibwe, the Mōsonī (Moose Cree), and the Néhinaw (Swampy Cree).⁴⁰³ A 2011 report by the Assembly of First Nations notes that environmental issues in the Great Lakes have severely impacted these communities, limiting their rights through the loss of biodiversity which has resulted in a loss of culturally and spiritually significant sites and aquatic species.⁴⁰⁴ For example, FN communities face economic issues from the loss of fisheries that threaten their food security. Ultimately, FN communities have difficulty advocating for the safety of the Great Lakes or impacting environmental policies because the sheer size of these waterways requires international cooperation to make any significant positive impacts. The Synthetic Collective's research around the Great Lakes, then, is especially necessary to understand the long-lasting impacts of plastic pollution on populations.

401. "Anishinabek Great Lakes Round Table Gathering: Final Report," The Anishinabek Nation, last modified March 24, 2015, <https://www.anishinabek.ca/wp-content/uploads/2016/07/UOI-GLG-Final-Report-FINAL.pdf>, 2.

402. Ibid.

403. Native Land Digital, last modified, 2023, <https://native-land.ca/>.

404. Chelsea Rochman, "Beyond our oceans: Microplastics pollute rivers and lakes too," University of Toronto: Faculty of Arts and Science, last modified April 27, 2018, <https://www.artsci.utoronto.ca/news/beyond-our-oceans-microplastics-pollute-rivers-and-lakes-too#:~:text=Microplastics%20in%20our%20Great%20Lakes,North%20America%2C%20Europe%20and%20Asia.>

5.4 The Exhibition

I think the exhibition was so deeply thinking and embodying plastic, in many of its complicated ways. And this is really at the core of the Synthetic Collective — an embrace that the synthetic is us. It is literally a part of all of us, and it affects people in complex ways. [...] What I feel is different in our approach is the felt evidence and thinking about this material through all of its identities. I felt it addressed plastics and its pollution in a way that is not a spectacle.⁴⁰⁵

The Synthetic Collective curated *Plastic Heart: Surface all the way through*, an exhibition at the Art Museum at the University of Toronto in 2021. The exhibition considered plastic from an interdisciplinary perspective — as an “art material, cultural object, geological process, petrochemical product, synthetic substance.”⁴⁰⁶ To that end, *Plastic Heart* included both data visualizations of SC’s scientific research on microplastics and industrial plastic pellets across the Great Lakes and several artworks and commissions from contributors such as: Christina Battle, IAIN BAXTER&, Sara Belontz, Leticia Bernaus, J Blackwell, Amy Brener, Hannah Claus, Sully Corth, Heather Davis and Kirsty Robertson, Aaronel deRoy Gruber, Fred Eversley, Naum Gabo, General Idea, Kelly Jazvac, Woomin Kim, Kiki Kogelnik, Les Levine, Mary Mattingly, Christopher Mendoza, Tegan Moore, Skye Morét, Meagan Musseau, Claes Oldenburg, Meghan Price, Françoise Sullivan, Catherine Telford-Keogh, Lan Tuazon, Marianne Vierø, Joyce Wieland, Nico Williams, and Kelly Wood. Not all contributors were artists, some contributed data visualizations of research, particularly Sara Belontz, and Heather Davis and Kirsty Robertson. The focus of my analysis is on the iteration of *Plastic Heart* held in Paris in 2023 that followed the 2021 iteration held at the UofT Art Museum. The Paris version is unique in its addition of works by French artists and installations

405. Tegan Moore, in discussion with the author, November 28, 2023.

406. “Plastic Heart: Surface All the Way Through,” Art Museum University of Toronto, last modified, 2021, <https://artmuseum.utoronto.ca/exhibition/plastic-heart/>.

that respond to the local context in France and the need to explore how to reduce the carbon footprint of an exhibition that requires shipping works internationally. It was clear that shipping some artworks would increase the exhibition's carbon footprint. As a result, the curators chose not to include some of the artists from the exhibition at the UofT Art Museum in the Paris iteration. For example, the works of Marianne Vierø, Mary Mattingly, Christopher Mendoza, Woomin Kim, among a few others were omitted and replaced with the work of French director Alain Resnais, French artist Aude Pariset, Burkinabe artist Nyabo Leon Ouedraogo, French artist Pierre Huyghe, and SC member Patricia Corcoran.

In my interviews with Kelly Jazvac and Kirsty Robertson, they mentioned the dynamics of working within institutions that had established operations, aesthetics, and values that guided how exhibitions are typically mounted. Importantly, neither expressed that these dynamics were necessarily negative. In fact, they expressed that the collective attempted to embrace such challenges and roadblocks. The fact of the matter is that *Plastic Heart* encouraged both the UofT Art Museum and the Canadian Cultural Centre to reflect on the waste produced and the energy consumed by their exhibitions, something neither institution had likely considered before. While I was visiting the exhibition, the question that came to my mind was one of sponsorship. I wondered if the Canadian Cultural Centre and the UofT Art Museum might be funded by corporations known to be heavy plastic polluters, and how would their support affect an exhibition that outwardly critiqued pollution? As I have discussed in my introduction chapter, the Canadian arts sector often accepts funding from resource extraction corporations, notorious for causing industrial pollution, so I expected that there may have been some level of institutional pushback. Interestingly, Jazvac mentioned that while they provoked some raised eyebrows to some of the more critical elements of the exhibitions, both art institutions welcomed critique and

dialogue about the role of art institutions in addressing plastic pollution. This might indicate a shift in attitudes and perspectives in the Canadian artworld.

Robertson and Jazvac both explained that the issues they faced were more administrative and bureaucratic. At the UofT Art Museum, the collective wanted to install solar panels on the museum's roof to power some elements in the show. What seemed like a simple task of placing one solar panel on the roof dominoed into larger concerns around facilities, construction, liability, and feasibility, especially because the institution is affiliated with and located on a university campus. In reference to a different exhibition with a similar sustainable curatorial framework, Robertson mentioned that the more pressing question for her is: "Is everyone at every level on side with the project? The bigger your institution, the more difficult that is."⁴⁰⁷ At institutions, union agreements are in place to protect workers from overworking or overstepping, and sustainable curating can sometimes ask workers, from exhibition designers, curators, custodians, and preparators, to be flexible and adaptable. Robertson says that because sustainable approaches are often new and can be time consuming, the key is to ensure that sustainable curating does not become anti-labour. In fact, to be successful, sustainable curating requires that everyone's needs are accounted for.

5.4.1 Caring for Plastic as Kin

Barker's theory of confluence offers a way to explore SC's interdisciplinary negotiations of plastic as a form of kin, or as a new relationship to the material. Here, I am inspired by feminist phenomenologist Sara Ahmed's consideration of how objects become used, misused, and discarded, and how they are symbolic of ideas or practices across various disciplines and domains.⁴⁰⁸ One of the most important takeaways from the collective's work is that through the

407. Kirsty Robertson in discussion with the author, February 29, 2024.

408. Ahmed, 8.

production, use, and common discarding of plastic, human lives have become bound to the material in so many ways. In fact, human lives arguably rely on plastic for survival. I often think back to Robertson's presentation at the 2023 Universities Arts Association of Canada (UAAC) Conference, where she discussed *Plastic Heart* in detail and received a question about how to prevent the cyclical and harmful waste of plastic. In response, Robertson noted that plastic is used in medical devices, injection equipment for vaccines or insulin for diabetics, eyeglasses, and even during surgery. In other words, we cannot simply villainize a material that has improved human lives in a variety of ways. By developing a relationship to the material, we can focus on the systems that uphold harmful overconsumption and disposal practices. Thereby, we can critically inquire about which lives are the most affected by high energy consumption and waste production. SC's work highlights the Great Lakes as a life source that needs to be protected from pollution, in tune with the FN communities who have historically been protectors of the lakes. Indigenous feminisms are especially relevant here, as these frameworks recognize women as protectors of water and foreground decolonial work to uphold Indigenous sovereignty and dismantle the colonial systems that underpins settler societies. Through this framework of water, I begin to understand plastic as possible kin. I do not intend to appropriate kinship from Indigenous communities who hold specific cultural practices and ceremonies and use specific language to enact kinships with and beyond human-life. I understand kinship here to mean making new relationships, or activating old ones, within the context of *Plastic Heart*.

My consideration of plastic as a form of kin is not unique. SC member Heather Davis has outlined the possibility of caring for plastic as queer kin, which aligns well with Indigenous feminist understandings of kin. Davis understands plastic as queer kin because it is created by humans, but not through reproductive sex. Plastic will never die or biodegrade; it will outlive

humans and, therefore, projects a plastic future where “progeny may not be human or filial.”⁴⁰⁹ Davis also takes cues from queer theorist Nicole Seymour’s ideas of queer values of “[...] caring not (just) about the individual, the family, or one’s descendants, but about the other species and persons whom one has no immediate relations [...]” as an affective ecological value.⁴¹⁰ Davis not only asserts plastic as queer kin, but that we must care for these kin to understand the impact of plastic pollution on *all of our futures*. Davis’s ideas complement Indigenous feminisms in thinking about expanding the possibilities of relationships beyond the human, especially with waste that is anthropogenic. Indigenous feminism implies a sense of care for all human and non-human entities, and taking this together with Davis’s ideas, this furthers the importance of seeing and caring for plastic as kin.

5.5 *Plastic Heart* in Four Parts

In *Discard Studies: Wasting, Systems, and Power* (2022) Métis scientist Max Liboiron and geographer Josh Lepawsky write that dominant systems have made wasting such a widespread, normal, and systematic practice that most people participate in discarding even when they do not want to.⁴¹¹ This is true for museums and galleries where producing waste to hold exhibitions is so normalized that most institutions may not even realize the ecological impact of their work. SC argues that the lack of attention on the huge amounts of waste produced by exhibitions is rooted in capitalist-colonial modes of exhibition-making and experiencing.⁴¹² Most exhibitions feature large amounts of vinyl didactic texts to ensure that the audience can

409. Davis, 83.

410. Nicole Seymour, *Strange Natures: Futurity, Empathy, and the Queer Ecological Imagination*, (Chicago: University of Illinois Press, 2013), 37.

411. Josh Lepawsky and Max Liboiron. *Discard Studies: Wasting, Systems, and Power* (Boston: MIT Press, 2022), 77.

412. *Ibid.*, 13.

understand the show's content; the walls are normally white and clean from constant repainting and repairing; exhibition prints must be printed on high quality paper and typically destroyed after its single use; frames and plinths are custom-built for paintings and sculptures; and several videos are played all day throughout an exhibition-run. These are only a few of the characteristics of an exhibition that result in high waste production and energy consumption. When SC decided to curate an exhibition focused on plastic, they were able to zoom out to consider the wider issues that are entangled in curating sustainably. They had to consider the power dynamics, bureaucracy, and the forms of labour that run deep into the modus operandi of the institution. The collective developed a curatorial model of sustainability that, in the words of Liboiron and Lepawsky, fundamentally changed the relationships that matter — the relationships to the institution, the curators themselves, and their audiences.⁴¹³

The collective decided to curate a show that critiques and responds to exhibitions with environmental themes, but that still "[...] use huge amounts of material resources in order to convey their messages [...]"⁴¹⁴ In responding to plastic pollution, SC did not want to contribute to already high carbon emissions and waste production, but they knew it would be impossible to create a waste free exhibition. Instead, they chose to consider, "how small a footprint an exhibition might have while still maintaining a cultural impact worthy of its waste impact and its legibility as an exhibition."⁴¹⁵ With this ethos in mind, the collective curated an exhibition grounded in their "approach of enough:"

The Synthetic Collective espouses an approach of enough: ecological footprints must be taken into account when weighing aesthetic decisions. An aesthetic of enough is one that simultaneously acknowledges and values the past, present, and future—enough already!—in its refusal of high carbon, high energy, high waste productions [...] Enough is an aesthetic based in achieving maximum impact with the minimum of resources.

413. Lepawsky and Liboiron, 127.

414. Arturo et al., 6.

415. Ibid., 6.

Enough is a counterpoint to the implied goal of museum-standard perfection and a culture that valorizes work above all else.⁴¹⁶

In the following sections, I break down the collective's sustainable curatorial practice in four parts: selection of objects and artworks; working with remnants and residues of previous exhibitions; working against linear progressions of time and decay; and creating installations that transcend political borders between 'Canada' and France. I separate these four characteristics of the exhibition(s) to offer an in-depth analysis of each characteristic to show how they contribute to an overall sustainable curatorial approach. In each section, I demonstrate how SC worked with and against plastic and interrogated/highlighted/resisted its use. As a result, SC developed a close relationship to plastic, caring for it in all its forms, uses, and possible sites of origin. I write from my own experience as well as the exhibition labels and the exhibition booklet from my visit to the Canadian Cultural Centre, in Paris, France.

5.5.1 Objects and Artworks

[...] Just the excitement of seeing these objects that have so much magic and power in them for me, and then being with Tegan and Théo, because we were all just like, 'Aaaah! Look how this looks in the light! Look at this thing, how this looks!' And some of the politics of those objects, like that tiny little IUD, the power it has [...] For 50 years, it lived inside a woman, designed by a man and named after a man. Then to have that in the same space as a Joyce Wieland and a Fred Eversley. What a triangulation of power through plastic in this really surprising way.⁴¹⁷

The SC's selection of works in *Plastic Heart* seems, upon first glance, random. But after walking through the entire show, I realized that plastic — as an art material, litter, toxic waste, and functionable object — is the *thing* that brings the show together. *Plastic Heart* is a study of plastic; plastic is the heart of the show. The exhibition occupied two spaces and followed two loose thematic clusters. In the main gallery space, the exhibition explored themes of the Great

416. Ibid., 11.

417. Kelly Jazvac in discussion with the author, November 28, 2023.

Lakes in North America, the politics behind plastic, and a consideration of plastic as a revolutionary material. Upstairs in the mezzanine, the exhibition focused on contemporary perspectives of plastic as a material working at the intersection of art, science, and design, while also continuing a focus on the Great Lakes. The curators selected works that explored plastic in specific moments and places, situating the objects in conversation with each other. For me, the result was a horrendous, wondrous, hopeful, and disheartening view of plastic. The variety of selected objects harkens back to Indian scholar and artist Ashok Mathur's interrogation of "non." Mathur argues that moving away from all-Black, Indigenous, and People of Colour (BIPOC) framed content or programming allows the experiences and conversations of racialized communities to be "normalized rather than being read of/through a position of resistance or affront to mainstream residencies."⁴¹⁸ I argue that the SC's selection of objects also allowed for racialized communities' experiences of plastic pollution and waste to be normalized, rather than solely viewing their experiences from a place of resistance or victimization. As I will discuss, Indigenous and other racialized artists rely on plastic as a material to convey their respective community's struggles, joys, and overall perspectives in institutions that have historically excluded them. The resulting narrative in *Plastic Heart* was deeply nuanced and accounted for the vast and often contradictory issues that are entangled within plastic.

418. Ashok Mathur, "Expanding Relationships: Beyond the Non," in *The Routledge Companion on Indigenous Art Histories in the United States and Canada*, eds. Heather Igloliorte and Carla Taunton (New York; London: Routledge, 2023), 94.



Figure 27: Sara Belontz, *Fragments and pellets from a 1x10, sample areas*, Bronte Beach, Oakville, 2019. Collection of the artist. All rights of the photos are reserved to all members of The Synthetic Collective (Kirsty Robertson, Tegan Moore, Kelly Jazvac, Patricia Corcoran, Kelly Wood, Heather Davis, Sara Belontz, Ian Arturo, Kathleen Hill, and Lorena Rios Mendoza). Photo credit: Vincent Roy.

The exhibition was grounded in SC’s work across the Great Lakes through the data visualizations from their research. For example, Skye Morét’s *Thank you to our Industrial Partners* (2020) interpreted SC’s 2020 study called “A comprehensive investigation of industrial plastic pellets on beaches across the Great Lakes and factors governing their distribution.” Morét demonstrated the density, accumulation, and distribution of plastic across different beach shores through resin crystals placed on top of a large make-shift map on the wall [Figure 26]. These crystals varied in length depending on the density of plastic pollution found in various sites. Complementing Morét’s map is Sara Belontz’s *Fragments and pellets from a 1x10 sample area* that included plastic waste found on Bronte Beach (Lake Ontario) collected by SC [Figure 27]. It can be difficult to imagine the enormous amounts of plastic waste that washes up on beach shores and sinks to the bottom sediments, but Morét and Belontz offer a clear visualization of data. As a viewer, I felt I was invited to inspect samples of plastic bits and pieces, too. Kelly Wood’s *Great Lakes: Accumulations* (2020) is also a clear representation of the huge amounts of

plastic waste that are piling high and are being dispersed near the Great Lakes, this time in the form of a digital collage of found images.



Figure 26: Skye Morét, *Thank you to our Industrial Partners*. 2020. Hyperlocally recycled polyethylene and polypropylene, galvanized steel wire, cotton rope, reusable screws. Collection of the artist. All rights of the photos are reserved to all members of The Synthetic Collective (Kirsty Robertson, Tegan Moore, Kelly Jazvac, Patricia Corcoran, Kelly Wood, Heather Davis, Sara Belontz, Ian Arturo, Kathleen Hill, and Lorena Rios Mendoza). Photo credit: Vincent Roy.

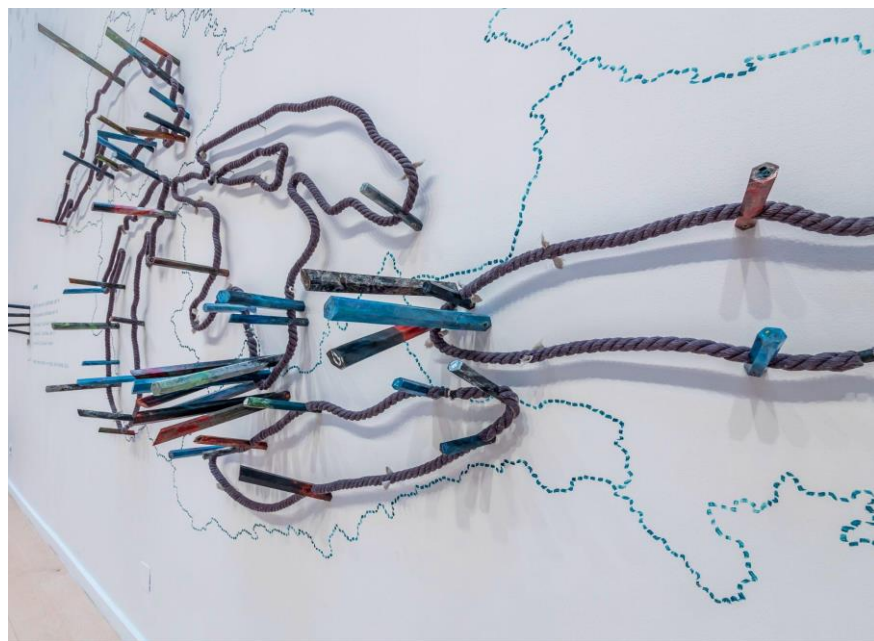


Figure 26.1: Skye Morét, *Thank you to our Industrial Partners*. 2020. Detail image. Hyperlocally recycled polyethylene and polypropylene, galvanized steel wire, cotton rope, reusable screws. Collection of the artist. All rights of image reserved to the artist and the Synthetic Collective. Photo credit: Vincent Roy.

In the gallery, Kelly Jazvac and Tegan Moore have used plastic and microplastic materials to create new artworks. I consider both of their works to be what Moore calls a kind of waste management sculpture. Waste is usually judged as being useless, and to waste can mean not making use of what has been given.⁴¹⁹ On the contrary, Jazvac and Moore collect waste and identify the gifts in those materials, transforming them into art. Jazvac's piece was a monumental wall-to-ceiling installation in the form of a salvaged billboard tarp that she called *Semon's Seaman* (2020-2021). The billboard is made of recuperated polyvinyl chloride, a ubiquitous and highly toxic type of plastic [Figure 28]. Once a billboard poster depicting a sales pitch for a high-end watch in an underwater scene, the image has since been sliced and secured to the floor with sandbags. The effect of the slicing mimics the fragmentation of plastics and the nuance in the representation of plastic throughout the exhibition's content. The sheer size of the installation mimics the massive problem of plastics, suggesting that tackling these challenges will require change at various scales.

Moore's work, *Permeations of a Dataset* (2022), contrasts Jazvac's installation with its use of tiny microplastics to create a large floor installation [Figure 29]. It is a data visualization of SC's survey of plastic pellets on the Great Lakes, but Moore has transformed it into a sculptural sound work.⁴²⁰ The sculpture is made of recycled plastic and salvaged items, like nylon mesh tile backing, nylon cable ties, hail-damaged polycarbonate roofing, fake cigarette filters, and photodegraded corrugated plastic. The most interesting part of the sculpture is its presentation of 7268 plastic pellets that were hand-collected from a 1 x 10-meter area on Baxter

419. Ahmed, 55.

420. Patricia Corcoran, Johanna de Haan Ward, Ian Arturo, Tegan Moore, Kelly Jazvac, et al., "A comprehensive investigation of industrial plastic pellets on beaches across the Laurentian Great Lakes and the factors governing their distribution," *Science of The Total Environment* 747 (2020): 1-12, <https://doi.org/10.1016/j.scitotenv.2020.141227>.

Beach in Sarnia, ‘Ontario,’ close to the Aamjiwnaang First Nation. In SC’s study, Baxter Beach had the highest concentration of plastic pellets out of all the beaches studied, possibly due to its proximity to manufacturing operations or the wind and wave patterns near the beach.⁴²¹ Moore explained to me that she wanted the sculpture to be more than a visualization of the datasets from SC’s study. She wanted it to retain the small scale of the microplastics to evoke a larger conversation about how these objects are studied and analyzed in scientific contexts. Moore said, “[...] one thing I was really responding to is the labor of the laboratory, the labour of collecting the data. Collecting the pellets was a big job, but the categorization of it was just massive!” Categorizing microplastics is extremely important because it allows SC members to ascertain where plastics come from and which corporations are responsible for waste. At the same time, on the beach shores, the presence of microplastics is, for lack of a better word, chaotic and has such a large impact on so many lives. Moore’s work illustrates how this mess of tiny pellets seems to be small-scale, but it is felt on a scale that is much larger.

421. Corcoran et al., “A comprehensive investigation of industrial plastic pellets on beaches across the Laurentian Great Lakes and the factors governing their distribution,” 10.



Figure 28: Kelly Jazvac, *Semon's Seaman*. 2020-2021. Salvaged billboard tarp, thread, sand, plastic pellets, aluminium. Collection of the artist. All rights of image reserved to the artist and the Synthetic Collective. Photo credit: Aurelien Mole.



Figure 28.1: Kelly Jazvac, *Semon's Seaman*. 2020-2021. Detail image. Salvaged billboard tarp, thread, sand, plastic pellets, aluminium. Collection of the artist. All rights of image reserved to the artist and the Synthetic Collective. Photo credit: Aurelien Mole.



Figure 29: Tegan Moore, *Permeations of a Dataset*. 2022. Detail image 1. Salvaged nylon mesh tile backing, nylon cable ties, hall-damaged polycarbonate roofing, photograded corrugated plastic, pre-consumer plastic pellets, various fragments of plastic pollution, fake cigarette filters, speaker and sound (6 minute loop). Collection of the artist. All rights of image reserved to the artist and the Synthetic Collective. Photo credit: Aurelien Mole.



Figure 29.1: Tegan Moore, *Permeations of a Dataset*. 2022. Detail image 2. Salvaged nylon mesh tile backing, nylon cable ties, hall-damaged polycarbonate roofing, photograded corrugated plastic, pre-consumer plastic pellets, various fragments of plastic pollution, fake cigarette filters, speaker and sound (6 minute loop). Collection of the artist. All rights of image reserved to the artist and the Synthetic Collective. Photo credit: Aurelien Mole.

Dispersed throughout scientific facts about plastic and plastic pollution were horrifying and beautiful artworks. One of the more shocking objects in the space was a model of one of the first intrauterine devices (IUD) — a contraceptive device inserted into the vagina to prevent pregnancies — made out of plastic. It forced me to confront what it means for plastic to be totally absorbed into human bodies, sometimes voluntarily [Figure 30]. In my interview with Kelly Jazvac, she explained that this IUD was created by a man, who likely did not consider the effects of plastics on the female body given the way it was used. The IUD was installed near the work of famous feminist Canadian artist Joyce Wieland, who was known for her works of sexual innuendos, like the paintings *Summer Blues-Ball* (1961) and *Heart On* (1962). By placing the IUD near Wieland’s works, the exhibition raises questions around female body autonomy and the impact of plastic on health [Figure 31]. Recent research suggests that the consumption of plastic and microplastics can cause adverse health effects, including cancers, cardiovascular disease, and fertility issues.⁴²² Issues of power and marginalization that underscore the impacts of plastic pollution come to the fore in the exhibition. The curators also included Ouedraogo’s *The Hell of Copper* (2008), a photograph of the Agbogbloshie landfill in Accra, Ghana, a dump filled with electronic waste from Europe and ‘North America,’ where thousands of workers are exposed to toxic fumes every day [Figure 32].⁴²³ It is well-known that countries in what is considered the “global north,” like France, Germany, the ‘United States,’ and ‘Canada’ export their waste problems to countries in the global south.⁴²⁴ For example, ‘Vancouver,’ exported

422. Lauren Gaspar, Sydney Bartman, Giuseppe Coppotelli, and Jaime M. Ross, “Acute Exposure to Microplastics Induced Changes in Behavior and Inflammation in Young and Old Mice,” *International Journal of Molecular Sciences* 24 (August 1, 2023): 2, <https://doi.org/doi.org/10.3390/ijms241512308>.

423. The Synthetic Collective, *Plastic Heart: Surface all the way through*, exhibition booklet, Paris: Canadian Cultural Centre, 2023.

424. Myra J. Hird, *A Public Sociology of Waste*, (Bristol University Press, 2022), 5.

sixty-nine shipping containers of municipal waste labelled as recycling to Manila, Philippines in 2013. 'Canada' was eventually forced to repatriate its garbage back to the country, resulting in a huge carbon footprint from the back and forth of the shipping containers.



Figure 30: IUD Lippes Loop. 1957. Polyethylene, barium sulfate. Collection of the Museum of Healthcare Kingston. All rights of the photos are reserved to all members of The Synthetic Collective. Photo credit: Vincent Roy.



Figure 31: Joyce Wieland, *Home Art Totem*. 1966. Mixed media. Collection of Edie and Morden Yalles. All rights of the photos are reserved to all members of The Synthetic Collective. Photo credit: Vincent Roy.



Figure 32: Nyaba Leon Ouebraogo, *The Hell of a Copper*. 2008. Colour digital print. Collection of the artist and Galerie Felix Frachon, Bruxelles. All rights of the photos are reserved to the artist and all members of The Synthetic Collective. Photo credit: Jasmine Sihra.

The curators of *Plastic Heart* also chose to highlight works where plastic plays a role in creating beautiful, culturally significant works that reflect communities who have been underrepresented in galleries and cultural spaces like the Canadian Cultural Centre. Meagan Musseau's *E'e for that Aunty magic of the intergalactic L'nu Basket* (2017-2018) is one of these works. Musseau is Mi'kmaq and French, and she combines traditional materials used in Mi'kmaq basketry, like woven ash splinters and sweetgrass stems, with synthetic materials, like a bright orange ribbon [Figure 33]. The artist's work comments on the isolation that her Mi'kmaq community might feel from the natural resources of their ancestral lands. This is highlighted through the lighting that reflects off the metal elements and creates a kind of halo around the work, signifying that the basket holds something special, like a feeling or memory.⁴²⁵

425. The Synthetic Collective, *Plastic Heart: Surface all the way through*, exhibition booklet, Paris: Canadian Cultural Centre, 2023.

When I shifted my focus above the basket, I could see Hannah Claus's installation *water song* (2014), which visually interprets the sound waves of a Mi'kmaq celebratory water song [Figure 34]. Suspended from the ceiling on wires, the installation consists of circular digital images printed on acetate that depict the surface of the Gesgapegia'jg (Cascapedia), Getnig (Restigouche), Tiapataqaniji'jg (Nova Scotia) and Sipug rivers. The digital inks used to print the images will gradually fade over time, even if they never biodegrade. As noted in the label accompanying the work, Claus embraces the visual change of the digital images, rather than attempting to replace them.



Figure 33: Meagan Musseau, *E'e for that Aunty magic of the intergalactic L'nu Basket*. 2017-2018. Courtesy of Meagan Musseau. All rights of the photos are reserved to all members of The Synthetic Collective. Photo credit: Vincent Roy.



Figure 34: Hannah Claus, *water song*. 2014. Digital print on acetate, thread, PVA glue, plexiglass. Courtesy of the artist. All rights of the photos are reserved to all members of The Synthetic Collective. Photo credit: Vincent Roy.

By reflecting on how artists use plastic in their works, it is easy to suggest that artists are complicit in plastic pollution and waste production. As Claus' and Musseau's respective works suggest, plastic can be an effective way to convey a meaning or message that is relevant for particular communities. The use of plastic in artworks began around the 1960s. Many artists of the time thought plastic was liberating. It was accessible and cheap, and it allowed artists to break away from ideas of elitist or acceptable artforms, like traditional paintings. This is exemplified by the inclusion of photographs of artists Eva Hesse and Fred Eversley working with plastic in their studios. Hesse frequently used found items in her post-minimalist sculptures, and Eversley sought to use materials that reflected advancements and evolution in technology [Figures 35 and 36].⁴²⁶ The way artists use plastic raises questions of how and when artists become complicit in plastic pollution and, more significantly, how and when artists become responsible to raise awareness about environmental issues instead of contributing to them.

426. Ibid.



Figure 35: Eva Hesse in her Bowery Studio (Reproduction). 1967. Water-based ink on cotton rag paper. ©Estate of Eva Hesse. Courtesy of Hauser & Wirth. All rights of the photo are reserved to the artist and all members of The Synthetic Collective. Photo credit: Vincent Roy.



Figure 36: Fred Eversley polishing one of his sculptures. 1969/1970. Water based ink on recyclable paper. Courtesy of the artist. Collection of Frederick Eversley. All rights of the photo are reserved to the artist and all members of The Synthetic Collective. Photo credit: Vincent Roy.

While plastic pollution is a serious environmental problem that warrants attention, plastic is not only an issue for the sciences. It is equally implicated in social, political, and economic issues. In previous chapters, I argued that the experience of racialization is exacerbated by pollution. Racialized and lower-income communities, especially those who work blue-collar jobs in factories that pollute heavily, are most vulnerable to toxin exposure. Strategies to mitigate pollution must necessarily contend with questions of power dynamics and systems that harm certain bodies over others. The curator's inclusion of Christina Battle's participatory project *THE COMMUNITY IS NOT A HAPHAZARD COLLECTION OF INDIVIDUALS* (2021) demonstrates that solutions to pollution need to reflect the complexity of the issue. Christina created this work as a participatory project for *Plastic Heart* at the UofT Art Museum, and it was exhibited in both iterations. The project explores the possibilities for plants to help remediate land, soils, and dirt that contain total petroleum hydrocarbons (TPH), a mixture of hydrocarbons found in crude oil. Certain plants act as hyperaccumulators, meaning they can facilitate the phytoremediation⁴²⁷ of contaminated sites and can potentially help us to deal with the chemicals that occur in TPH, like hexane, fluorene, and benzene. However, Christina does not attempt to focus on how humans can (continue to) simply use or overuse plants to fix our human mistakes. The project asks participants to consider how they too might be able to support the plants in return by planting seeds in gardens.

Similar to previous series', like *seeds are meant to disperse* (2015 -), this project asked participants to develop a meaningful, reciprocal relationship with seeds. Since the petrochemical industry is concentrated in 'Alberta,' 'Ontario,' and 'Québec,' Christina worked with project participants from these areas. The participants planted Canada Wild Rye and Western

427. Phytoremediation is the process of using plants to clean up contaminated waters, airs and soils.

Wheatgrass seeds, as grass and legumes have been well studied as potential hyperaccumulators. They were planted alongside others, such as Purple Avens, Joe Pyeweed, and Yarrow, because gardens thrive with lots of plants that support each other. After completing a survey providing details on the climate and environment surrounding their homes, participants were sent a *Natural Plant Community Toolkit*, which included seeds, guides for supporting the seed growth, instructions, and two blank postcards: one to map out planting locations, and the other to send to each other, to share their own experiences planting, gardens, and other ways they engaged with Christina's project. In *Plastic Heart*, Christina's project took the form of an installation of postcard maps and a large banner that reads *THE COMMUNITY IS NOT A HAPHAZARD COLLECTION OF INDIVIDUALS*, with a list of plants underneath the phrase. This artistic take on hyperaccumulators allowed visitors to visualize these remediated gardens, while participants engaged in scientifically proven solutions on a local level.

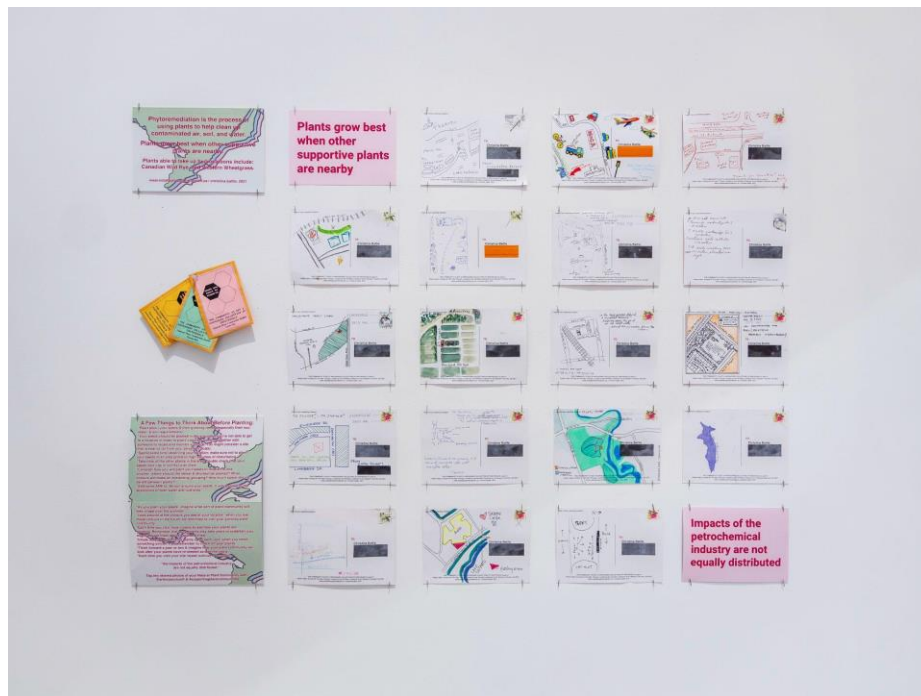


Figure 37: Christina Battle, *THE COMMUNITY IS NOT A HAPHAZARD COLLECTION OF INDIVIDUALS*. 2021. Detail image. Digital print on organic cotton, animated GIF, participatory project with seed packets (grass and wildflower seed, mycorrhizal fungi), instruction set, postcards, website. All rights of the photo are reserved to the artist and all members of The Synthetic Collective. Photo credit: Vincent Roy.

5.5.2 Remnants and Residues

SC made the curatorial decisions to produce as little waste as possible and to work with existing materials instead of buying new. This choice demonstrates their ultimate care and attention to plastic. Sarah Ahmed writes that colonialism is justified as using what is unused, as a resource for gain, for profit or some other kind of benefit. The ideology of colonialism that uses (or abuses) is part of wasting.⁴²⁸ The collective's attention to the remnants and residues is a transgression of a colonial attitude that tosses objects (and people) aside with no attention to their meaning, life, or potential. First, the curators chose not to repair or repaint the gallery's walls following the preceding exhibitions [Figures 38, 39, and 40]. At UofT Art Museum, a work by Christopher Mendoza, *yet you dream in the green of your time* (2020), from the gallery's previous exhibition was repurposed and presented as part of *Plastic Heart*. At the Canadian Cultural Centre, they displayed photographs of Eva Hesse and Fred Eversley, documentation of Naum Gabo's *Construction in Space: Two Cones* (1936), and Les Levine's exhibition invitation of *The Plastic Arts 4 New Shows* (1967) on top of vinyl residues⁴²⁹ from Xiaojing Yan's installation *Under the willow tree* (2017), which was included in the Centre's previous exhibition [Figure 41]. The title didactic was cut out of old plastic and vinyl posters, once again working with the residues of projects whose materials remain despite producers having moved on [Figure 42]. Hanging in the gallery, Kelly Jazvac's large tarp *Semon's Seamon* similarly reflects the exhibition's desire to reuse plastic. Typically, museums and galleries produce exhibition labels and didactics with PVC lettering, but to avoid the creation of new plastic waste, the labels in *Plastic Heart* were created with liquid waste turned into ink and compostable cardstock, making them entirely compostable. Some labels even had errors that were crossed out, refusing to

428. Ahmed, 47.

429. The Synthetic Collective curators note that these were used with permission from the artist.

produce waste for the sake of ‘picture perfect’ exhibition displays [Figure 43]. This contributed to the experimental, laboratory aesthetic of the show that refused to contribute to the waste typically produced by exhibitions through PVC vinyl lettering and didactics, or repainting walls that would inevitably be painted over and over again. All of the exhibition’s physical waste was consolidated into four garbage bags in the corner of the gallery, maintaining the collective’s desires to be transparent about their failures, shortcomings, and successes [Figure 44].



Figure 38: Example images of unpatched holes, paint loss, and unrepaired walls in *Plastic Heart: Surface all the way through*. 2023. All rights of the photo are reserved to all members of the Synthetic Collective. Canadian Cultural Centre, Paris, France. Photo credit: Jasmine Sihra.

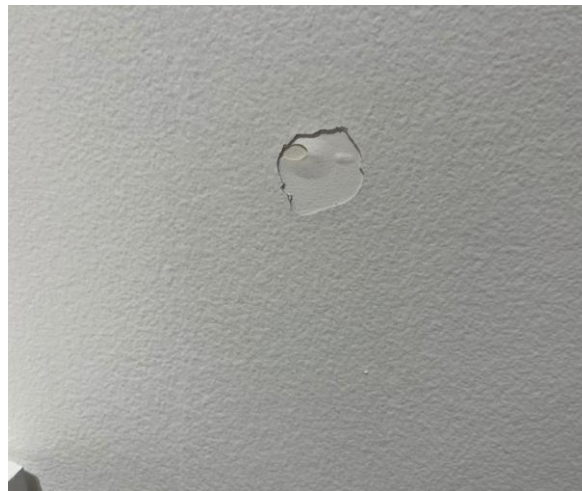


Figure 39: Example images of unpatched holes, paint loss, and unrepaired walls in *Plastic Heart: Surface all the way through*. 2023. All rights of the photo are reserved to all members of the Synthetic Collective. Canadian Cultural Centre, Paris, France. Photo credit: Jasmine Sihra.



Figure 40: Example images of unpatched holes, paint loss, and unrepaired walls in *Plastic Heart: Surface all the way through*. 2023. All rights of the photo are reserved to all members of the Synthetic Collective. Canadian Cultural Centre, Paris, France. Photo credit: Jasmine Sihra.



Figure 41: Xiaojing Yang, *Under the willow tree*. 2017. Vinyl. Artwork from *Plastic Heart: Surface all the way through*, 2023, on section of installation from previous exhibition at the Canadian Cultural Centre, *The Art of Living On Immigration, Community and the Migration of Symbols*, 2022. All rights of the photo are reserved to all members of the Synthetic Collective. Canadian Cultural Centre, Paris, France. Photo credit: Vincent Roy.



Figure 42: Title didactic from *Plastic Heart: Surface all the way through*. 2023. All rights of the photo are reserved to all members of the Synthetic Collective. Canadian Cultural Centre, Paris, France. Photo credit: Aurelien Mole.

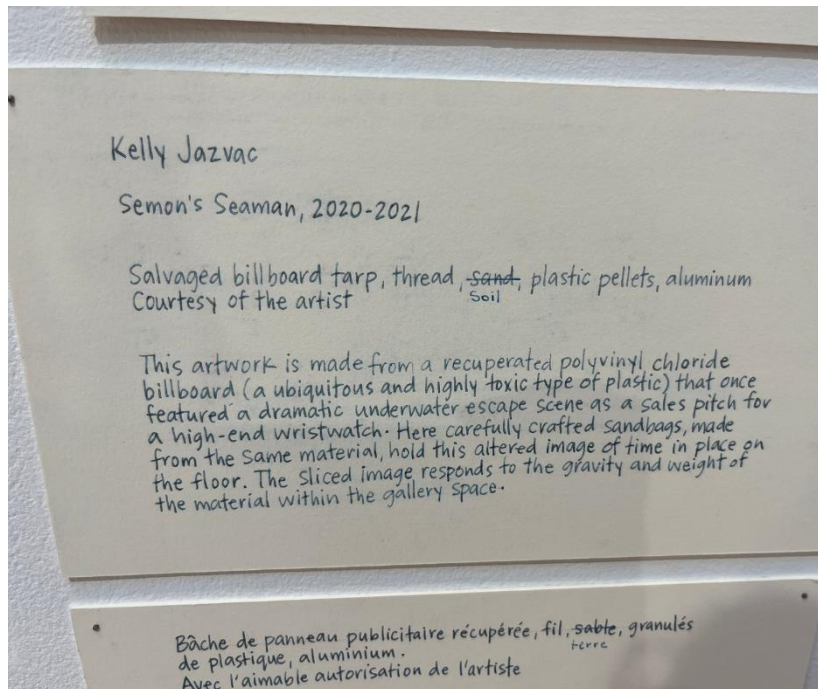


Figure 43: Example of artwork label with errors in *Plastic Heart: Surface all the way through*. 2023. All rights of the photo are reserved to all members of the Synthetic Collective. Canadian Cultural Centre, Paris, France. Photo credit: Jasmine Sihra.



Figure 44: Image of garbage bags with waste produced by installation from *Plastic Heart: Surface all the way through*. 2023. All rights of the photo are reserved to all members of the Synthetic Collective. Canadian Cultural Centre, Paris, France. Photo credit: Jasmine Sihra.

SC's attention to the residues and remnants of objects is reminiscent of Sugpiag writer and scholar Tanya Lukin Linklater's "Glossary of Insistence." Referring specifically to Indigenous ceremonial and Alutiiq masks, Linklater asks how objects can "evoke ephemera of invisible structures [...] structures that impact the simultaneity of our everyday lives?"⁴³⁰ Linklater further offers that objects, in their residues, "call to us," and we have opportunity to respond back to these calls.⁴³¹ Through *Plastic Heart*, SC responded to waste by tending to the stories and past lives of the residues and remnants, instead of simply allowing the objects to become trash. In some cases, waste was visibly centered, as seen in the unpatched holes in walls and garbage bags. In other cases, there was a move to prevent the creation of waste by reusing materials, through the use of waste inks and other alternative wall didactics. In all cases, it can be said that SC responds to the objecthood of waste, exploring the possibilities of exhibition design

430. Tanya Lukin Linklater, "A Glossary of Insistence." In *The Routledge Companion on Indigenous Art Histories in the United States and Canada*, eds. Heather Igloliorte and Carla Taunton (New York; London: Routledge, 2023), 323.

431. Linklater, 325.

when curators care for waste, instead of simply discarding it, or contributing to a culture of high-waste production. Though Linklater refers specifically to the trauma of having masks removed or stolen from communities, she explicitly points out how colonialism has shaped encounters with objects in museums.

By applying Linklater's glossary of insistence to SC's curation, I draw out how they contend with the ongoing colonial impacts in museums and galleries, especially with waste. In line with Liboiron and Lepawsky's view of discard practices originating in colonial and settler-colonial expansion, I consider wasting here as a technique of power.⁴³² When SC chose to avoid waste as much as possible, they exposed power dynamics that filter through the experience of viewing an exhibition. *Plastic Heart's* curatorial choices intentionally challenged the conventional modes of exhibitions, where waste and plastic are the norm.⁴³³ In galleries, the overall goal is to visually consume the works rather than interrogate the spaces and institutional baggage that frame them.⁴³⁴ It's about, as Robertson notes, making everything look "perfect" or clean. In some cases, curators must adhere to a clean aesthetic because it is mandated by the gallery. For galleries interested in a more ecofriendly approach, leaving holes in the walls or handwriting labels is part of embracing a different kind of aesthetic — one that reveals the flaws of the space. Jazvac puts it well:

I think viewers that come to an art gallery are trained to look at museums and galleries as creative spaces [...] And they can also be spaces with this uptightness to them, a rigidity. It's still well-held in gallery behaviour, in how objects are treated, and how bodies are treated in these spaces. To come in more propositionally, experimentally, I feel like you're not saying, 'this is the canon, hold your breath when you look at it.' You're

432. Lepawsky and Liboiron, 3.

433. Arturo et al., 13.

434. Jasmine Sihra, "Oliver Beer's Sound Projects: Exploring the Acousmatic Possibilities of Visual Spaces," *esse arts + opinions*, no. 103 (2021), <https://esse.ca/en/young-critics/oliver-beers-sound-projects-exploring-the-acousmatic-possibilities-of-visual-spaces/>.

saying, ‘there are flaws here too, we know you feel it, so let’s think about that and imagine alternatives.’⁴³⁵

5.5.3 Non-linear progressions of time

I really think we have to start thinking about a human lifespan as the lifespan of the things that we create, like material objects, and that includes plastics, which are currently eons and eons beyond our timespan on Earth.⁴³⁶

Plastic lasts for thousands of years — what feels like forever considering our short human lifespans. It might photodegrade, brown, yellow, but it never biodegrades. The lifespan of plastic is never-ending, and it resists a linear progression of time that would suggest a “beginning” and an “end” or “birth” and “death.” SC embraced this characteristic of plastic by curating works that reflect plastic’s forever-existing quality. Thinking through plastic as a reminder of what has come before, SC included a work created in-situ by Pierre Huyghe called *Timekeeper* (2002) [Figure 45]. It is essentially a hole in the gallery wall that shows all of the successive layers of paint under the top coat, including layers of paint from before the Canadian Cultural Centre moved into the space in 2018.⁴³⁷ The paint here is made of acrylic latex-based polymers and resin binders, materials that of course do not biodegrade and will last forever. *Timekeeper* is a physical reminder that while the space’s past projects are over, they resist a linear progression of time through their continued material presence. The show also included Joyce Wieland’s 1966 work *Home Art Totem*, which, has browned and yellowed over time. The same can be said about Claes Oldenburg’s 1965 *Tea Bag*. Once a transparent clear material, today, it has browned around the edges, appearing as if it has been used for a cup of tea [Figures 46 and 47].

435. Kelly Jazvac in discussion with the author, November 28, 2023.

436. Kirsty Robertson in discussion with the author, February 29, 2024.

437. The Synthetic Collective, *Plastic Heart: Surface all the way through*, exhibition booklet, Paris: Canadian Cultural Centre, 2023.

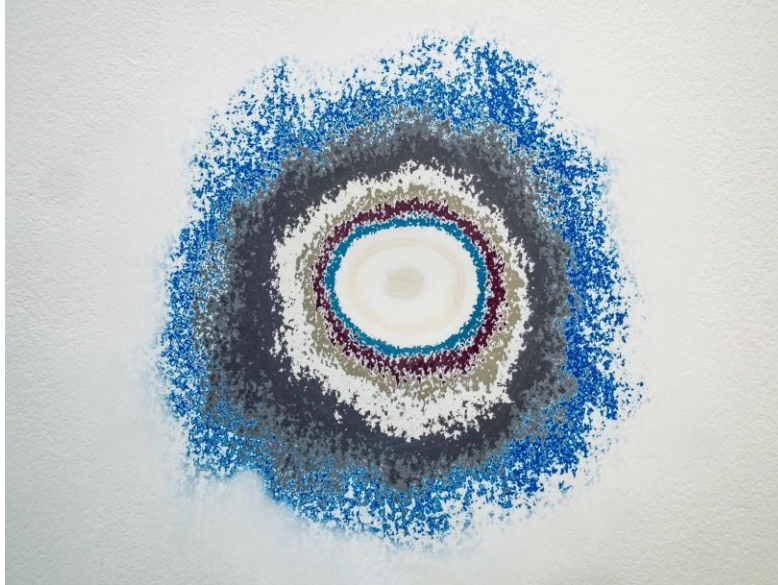


Figure 45: Pierre Huyghe, *Timekeeper*. 2002. Site specific wall installation (hole in gallery wall showing layers of paint from previous exhibitions). All rights of the photo are reserved to the artist and all members of the Synthetic Collective. Canadian Cultural Centre, Paris, France. Photo credit: Vincent Roy.

Teagan Moore's *You are Impossible* (2003) and Patricia Corcoran's *Alvin Shrunken Head* (1995) are the most striking examples of the endless existence of plastic [Figures 48 and 49]. Moore created *You are impossible* by submerging a disposable polystyrene cup 250 metres underwater, and the water pressure at this depth inevitably shrunk the cup by squeezing the air out of it. Twenty-years later, the deformed cup may look dishevelled, but its physical existence continues. Similarly, Corcoran was given a polystyrene mannequin head, named *Alvin Shrunken Head*, that shrunk when it fell deep into the Pacific Ocean, totally shrinking and transforming the material to a fraction of its original size. This head, twenty years older than the exhibition itself, persists despite being changed by external factors, in this case, from water pressure. The exhibition ultimately reminds us that plastic's ongoing resistance to biodegradation is what prolongs its existence even beyond the average human lifespan. The crucial issue that the exhibition raises, as Robertson suggests, is that we must measure our human lifespans in terms of the objects, and waste, that we create to fully understand our impact on the environment.



Figure 46: Patricia Corcoran, *Alvin Shrunken Head*. 1995. Sharpie marker on expanded polystyrene mannequin. Collection of Corcoran. All rights of the photo are reserved to the artist and all members of the Synthetic Collective. Canadian Cultural Centre, Paris, France. Photo credit: Vincent Roy.

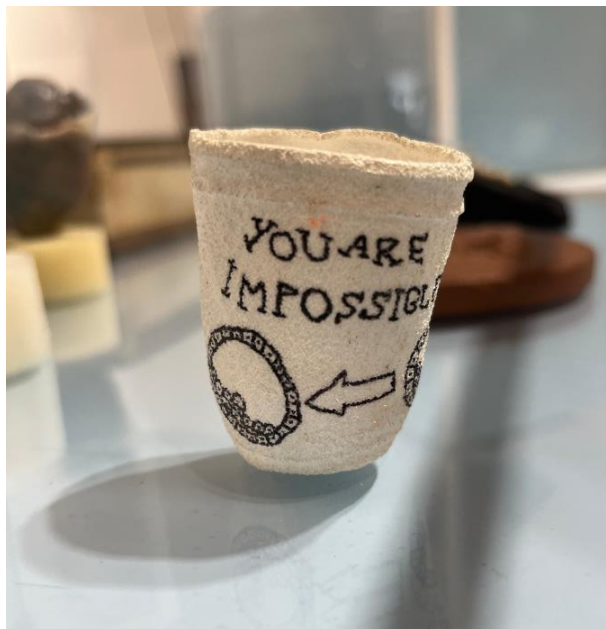


Figure 47: Tegan Moore, *You are impossible*. 2002. Sharpie marker on expanded polystyrene cup. Collection of Jasmine Sihra, gifted by Tegan Moore. All rights of the photo are reserved to the artist and all members of the Synthetic Collective. Canadian Cultural Centre, Paris, France. Photo credit: Jasmine Sihra.

5.5.4 Beyond Political Borders

Plastic Heart was installed in two very distinct places in two disparate countries. In Tsí tkarón:to, the exhibition was installed at the Art Museum, a prominent art gallery space centred on the Downtown, St. George Campus of the University of Toronto [Figure 48]. I have

personally visited the Art Museum on several occasions, freely walking in to explore their programming, and the institution's relationship to the university is apparent in both its location as well as its programming. Here, the audience who enjoys the gallery's exhibitions year-round consist of mostly students, educators, researchers, artists and curators. The Art Museum typically holds exhibitions curated by students and professors of the university or showcases the works of artists enrolled as students. This contrasts the exhibition at the Canadian Cultural Centre, which is housed within the Canadian Embassy in Paris. The centre is in a fairly central location in the 8th Arrondissement, not a far walk from the Musée du Louvre or the Tour Eiffel. Upon entering the centre, several security guards are waiting to check bags, and visitors must inform personnel the reason for their visit. The actual gallery spaces exhibiting artwork are slightly hidden. It is clear that the exhibitions chosen for these spaces are meant to showcase contemporary and historical artwork of artists based and practising in 'Canada'. From my perspective researching the *Plastic Heart*, the Centre chooses exhibitions that contribute to a narrative of 'Canada' as a diverse and multicultural country.⁴³⁸ This is most evident in the exhibition *The Art of Living on Community, Immigration, and Migration* (2022), that directly preceded *Plastic Heart*. I remember, too, seeing publications highlighting the work of Indigenous artists from 'Canada,' including several copies of *Inuit Art Quarterly*, published by the Inuit Art Foundation.

438. Several scholars have written extensively about Canada purporting an identity as a diverse and multicultural nation. One notable article which critiques the relationship between migration, colonialism, and Indigenous sovereignty is:

Malissa Phung, "Are People of Colour Settlers Too?" *Cultivating Canada: Reconciliation Through the Lens of Cultural Diversity*, eds. Ashok Mathur, Jonathan Dewar, and Mike DeGagné, (Aboriginal Healing Foundation: Ottawa, 2011), 289-298.



Figure 48: Title didactic from *Plastic Heart: Surface all the way through*. 2021. All rights of the photo are reserved to all members of the Synthetic Collective. Art Museum at the University of Toronto, Tsi tkarón:to, Canada. Photo credit: Toni Hafkenschied.

As a result of the contrasting contexts, the exhibition was viewed and experienced by visitors differently. First, one of the main focus areas of *Plastic Heart* and the collective's research is plastic pollution in the Great Lakes, water bodies in Southern 'Canada' and Northern 'USA.' A Canadian audience is much more familiar with the geography and environment of these areas, especially as much of 'Canada's' freshwater sources come from the Great Lakes. Secondly, the Art Museum's location on a university campus suggests that the collective's academic research might have been appreciated or understood beyond a creative, artistic venture, and more so as an interdisciplinary foray into an environmental issue. The museum's presence on a university campus positions it as a site of learning and experimentation, making it feel more welcoming and accessible, as a large majority of its visitors are in fact the campus community. This contrasts the Centre's entrance process, where visitors must be thoroughly scanned and deemed safe prior to enjoying the artwork. While I understand the importance of securing a

political building, I visited the Centre twice in a row and I was the only visitor in attendance on both days, further suggesting a kind of exclusion.

Based on my interviews with Moore, Jazvac, and Robertson and my own experience of the exhibition, the Centre's elusive presence in Paris did not reflect the collective's ability to curate the exhibition. It could be said that the Canadian Cultural Centre may not have embraced the collective's sustainable curatorial model as easily as the Art Museum, but my interview with Jazvac suggests that both spaces were relatively open to a new way of curating. As a matter of fact, Jazvac mentioned to me that exhibition installation staff at the Centre had already been saving materials and engaging in acts of reuse, so the *Plastic Heart* curators felt confident when proposing their ideas. My sense is that the Centre appreciated the collective's experimental research of environmental issues on uniquely Canadian regions, and they were keen to present this exhibition with a more cutting-edge ethos in an international context. To my knowledge, in my interview with Robertson, she mentioned that museums and galleries in Europe had been exploring ecofriendly and environmentally conscious decisions in their spaces for many years. Perhaps by showcasing the Synthetic Collective's exhibition, the Centre demonstrated that 'Canada,' too, is well- engaged in these international conversations on environmental problems.⁴³⁹ The presence of *Plastic Heart* in both 'Canada' and France hints that there is growing interest and support for environmental themed exhibitions that consider a gallery or museum's environmental impact globally.

The collective made key changes to the exhibition when it travelled to Paris to account for the local context. When Moore made the second iteration of *Permeations of a Dataset* for *Plastic Heart* in Paris, she created fake cigarette filters, a material found in abundance on the

439. Kirsty Robertson in discussion with the author, February 29, 2024.

streets of Paris that represents the grittiness of the city. However, she did not want to expose gallery visitors to the filter's toxic smell, so she created fake ones out of vegetable starch, mulberry paper, and rice glue. Adapting the content to the Parisian context was a significant element of *Plastic Heart's* second iteration. The collective's first challenge was ensuring that the exhibition's carbon footprint remained low despite needing to ship objects from 'Canada' to Paris. This meant that objects that could not be packed compactly and safely in shipping containers would be excluded from the Paris exhibition. For example, while Hannah Claus's installation *water song* takes up a lot of space in the gallery, each individual vinyl piece could stack upon each other, making its overall shipping cost and carbon contribution quite low. Though SC's research and works like *water song* focus on the Great Lakes in 'Canada,' additional objects were included in the Paris iteration to draw a relationship between France and 'Canada.' The Canadian Cultural Centre commissioned SC to create an installation that adapted *Plastic Heart* to the Parisian context [Figure 49]. The resulting work was stacked bistro chairs with caning made from "French nylon" or Rilsan Polyamide 11. This is a ubiquitous thermoplastic polymer that can be found in many products globally, like cosmetics or even pens. Despite its international prevalence, it originated in France when Arkema developed and produced it in the 1950s.⁴⁴⁰ These chairs serve as a reminder of the globalization of plastic and how plastic waste is driven by consumerism and capitalism. Complementing these chairs is French director Alan Resnais's film *Le Chant de Styrène* (1958), a film that seemingly praises the invention of plastic and traces its origins in petroleum. The commentary presents the production and manufacturing of plastic with an ominous tone, suggesting a critique of the early signs of the mass-production of plastic.

440. The Synthetic Collective, *Plastic Heart: Surface all the way through*, exhibition booklet, Paris: Canadian Cultural Centre, 2023.



Figure 49: Rented bistro chairs, nylon zip ties, Rilsan® polyamide 11, metal table, used patio table, microplastic fragments collected by Synthetic Collective member Sara Belontz, cotton fabric, two bistro chairs loaned by Sylvie Bignon, commission text by French science historian Bernadette Besaud-Vincent, printed by Risograph on paper. All rights of the photo are reserved to the artist and all members of the Synthetic Collective. Canadian Cultural Centre, Paris, France. Photo credit: Vincent Roy.

French artist Aude Pariset's *landfill still life* (2018) offers a more hopeful vision of plastic futures. To create this work, Pariset placed wax worms onto a yellow polyethylene garbage bag. Wax worms have a digestive micro-organism that can break down plastic and turn it into glycol, implying the potential for these worms to be a solution to plastic pollution [Figure 50].⁴⁴¹ There are ethical issues around using these creatures to deal with anthropogenic issues, but the possibility of studying those microorganisms for the purpose of dealing with plastic waste seems promising. *Landfill still life* (2018) was installed close to Christina's *THE COMMUNITY IS NOT*

441. Ibid.

A HAPHAZARD COLLECTION OF INDIVIDUALS (2021), which, in essence, argues that developing relations rooted in care and kinship to plants is key in confronting pollution. Christina’s work also embodies the view that plants and other organisms transcend political borders in a way that humans cannot, writing on the project’s website, “We are bound by imposed colonial borders.”⁴⁴² For Christina, plants do not adhere to the colonial constructs of borders, and grow in locations based on their needs. As I experienced these pieces in the French context, I was reminded of water — the way it transcends political borders and forces populations globally to relate to each other in some way. Water does not follow state travel restrictions; it flows freely. Indeed, the Great Lakes have only been named as such by the settler-colonial states of ‘Canada’ and the ‘US’ to exercise political control over these areas and draw from these waterways as resources of freshwater.



Figure 50: Aude Pariset, *landfill still life*. 2018. Low density polyethylene trash bag and shopping bag, partially digested by worms over a duration of three weeks and mounted on museum cardboard. Collection of the artist. All rights of the photo are reserved to the artist and all members of the Synthetic Collective. Canadian Cultural Centre, Paris, France. Photo credit: Vincent Roy.

442. Battle, “Introduction,” last modified 2021, <https://www.notahaphazardcollection.ca/introduction/>.

5.6 Neverending (Plastic) Questions

The Synthetic Collective's exhibition *Plastic Heart* was a peculiar show that transcended disciplinary boundaries and geopolitical borders in its Paris iteration. From its interdisciplinary research to the constant negotiations of institutional standards, and the countless questions that went into putting on a low waste exhibition, it's hard to say it was a typical gallery exhibition. Moore said that the exhibition felt like putting together a public research project, with plastic as a material as the point of inquiry. Each work was an exploration of an issue that is entangled in plastic, whether it be racial, gendered, environmental, or artistic. Each work was a gesture towards what could be a more environmentally conscious artworld that more aggressively confronts what the collective calls a "wicked" problem of plastic.⁴⁴³ Funny enough, the ceaseless conversations instigated by *Plastic Heart* mirrors the never-ending realities of plastic itself. As I walked away from the exhibition, I wondered to myself, *what is the solution to plastic pollution?* The issue of plastic waste is an extremely complicated one that undoubtedly requires interdisciplinary collaboration and international cooperation. One of *Plastic Heart's* major lessons was that plastic is just as beautiful as it is horrendous. Perhaps, whatever solutions we imagine dealing with this tricky type of pollution must embrace the contradictory facts and experiences of plastic. Because with plastic, the stories always seem to continue.

443. Sara L. Belontz, Patricia L. Corcoran, Heather Davis, and Kathleen Hill, "Embracing an interdisciplinary approach to plastics pollution awareness and action," *Royal Swedish Academy of Sciences* 48 (November 17, 2018): 855, accessed January 24, 2026, <https://doi.org/10.1007/s13280-018-1126-8>.

CHAPTER 6 CONCLUSION/RIPPLES

Definition of ripples: to become lightly ruffled or covered with small waves; to flow with a light rise and fall of sound or inflection; to move with an undulating motion or so as to cause ripples; to have or produce a ripple effect⁴⁴⁴

444. Merriam-Webster, "Ripple," accessed December 6, 2025, <https://www.merriam-webster.com/dictionary/ripple>.

~an anecdote that flows from my hands onto this page, like the amrit nani sprinkled on my face~

I often say that my nani, Bhajan Mudhar, is one of my first teachers. I didn't always feel this way, but as I moved throughout academia, I realized that she (perhaps forcefully) imparted values of love, generosity, compassion, and patience on me. (She also always ingrained in me this tendency to gossip, like many Desi immigrant mothers!) I very quickly noticed the similarities between her lessons and Indigenous feminist ontologies of waterways, but most importantly, accepting the nuance and complexity of relationships as generative. Embracing difference and sitting with discomfort is what leads us to solidarity, and it is part of that struggle towards decolonization or anti-colonial spaces. My nani didn't always have an easy life and she also didn't go to school, so I really wanted to make sure I honoured her to symbolize the precious and complex wisdom that comes from Black and brown immigrant families. I wanted to show that this wisdom is part of why I think it's so important to not only value our experiences but foreground them as guidance and gestures towards envisioning a world rooted in good relations with humans and non-human others. In my introduction of my dissertation, I began with a story about my nani sprinkling sikh holy water, *amrit*, on my face during her daily sikh prayers, Japji sahib, and I learnt that so many other Punjabi Sikhs experienced this with their nanis and dadis, too. I hope this story demonstrates that we all have stakes in taking care of the waterways, not only seeing them as something we need to survive.

— Jasmine Sihra

Throughout this dissertation, I have argued that there is an emerging movement of artists, curators, and arts workers who tease out the connection between pollution and colonialism in their respective interdisciplinary projects. Using Barker's Indigenous feminist notion of confluence rooted in water as a decolonial ontology of relationships, I posited the various disciplines as disparate rivers that meet at an interdisciplinary junction. My exploration of this junction took the form of case studies of artistic works, practices, and exhibitions that confront the effects of pollution on BIPOC across 'Canada.' In each chapter, I turned to water to think through the multifaceted issue of pollution and resource extraction, with the aim of suggesting that interdisciplinary efforts are crucial to understanding the nuanced consequences of pollution. Each chapter began with an excerpt from an interview between myself and an artist who expanded my knowledge of a topic, with the aim of the excerpt thematically setting up a chapter and reminding my reader of the relationships that guided me in my research. By drawing on my relationships and focusing on those close to me, I articulated that artists, artworks, and exhibitions are particularly well-suited to capture the complex experiences of communities who deal with the long-term effects of pollution-exposure. High-level governmental policies, regulations, standards, assessments, and even laws would benefit from more robust consulting with professionals working at the intersection of fields to tend to the experiences of those most vulnerable to water contamination, air toxins or other pollution.

Prior to analyzing the recent trend of artists and curators adopting interdisciplinary research and artistic approaches, Chapter 2: Waves of Pollution in 'Canadian' Art History established that pollution and art have always been entangled in the 'Canadian' arts milieu, discussing key historical works, exhibitions, and moments from the 1900s to 2012. In Wave 1: Mining the Nation, I analyzed the works of Yvonne McKague, Bess Housser Harris, and Isabel

McLaughlin — female contemporaries of the Group of Seven — who individually developed unique painting styles that capture the consequences of industrialization and abandoned mines in Cobalt, Ontario. The rise of industrialization afforded them the space to paint memorable scenes of pollution at a time when the landscape paintings by men were being privileged and celebrated. Today, these paintings serve as a critical visual record of the onslaught of industrialization in the early to mid-20th century. I also discussed white feminist artist Joyce Wieland's works that critique environmental degradation and resource extraction in the Arctic, such as *The Water Quilt* (1970-71), before moving on to outline the boycott and protest of the 1976 exhibition, *Changing Visions: The Canadian Landscape*. The exhibition was sponsored by the Dryden Chemical Company, which at the time, had just dumped 9,000 litres of mercury into the English-Wabigoon River close to the Asubpeechoseewagong Netum Anishinabek. Another notable moment of dissidence in the 1980s was the boycott of *The Spirit Sings: Artistic Traditions of Canada's First Peoples* (1988) for its sponsorship from Shell Oil Canada, which was illegally drilling land claimed by the Muskotew Sakahikan Enowuk.

In the second wave, pollution and extraction on Indigenous land, the period of 1980 to 2012, I discussed artists whose works point out that resource extraction and the ongoing pollution of lands, waters, and airways threatens Indigenous sovereignty, such as Anishinaabekwe artist Rebecca Belmore. I went on to provide examples of Inuit artists whose works document settlers and industrial expansion into lands across Inuit Nunangat and Circumpolar regions in 'Canada.' I point out that Indigenous artists asserting their respective community's sovereignty and land rights in the 1990s and early 2000s occurred alongside the development of major commissions and policies, particularly the United Nations Declaration of the Rights of Indigenous Peoples (UNDRIP) and the Task Force on Museums and First Peoples. From 2000 to

2012, more artists began to clearly articulate the effects of colonialism, resource extraction, pollution, and climate change on racialized communities, especially Indigenous artists Brian Jungen (Dane-zaa), Christi Belcourt (Métis), Ningiukulu Teevee (Nunavimmiuk), and Bill Nasogaluak (Inuvialuk).

This chapter concluded with the third wave, institutional changes from 2012 to present, where I discussed the artistic and cultural shifts in the ‘Canadian’ arts milieu that have moved towards confronting pollution in institutional spaces and foregrounding the connection between resource extraction and colonialism at the grassroots level. These shifts were contextualized in my discussion of the publication of the TRC, the rise of Idle No More, the Canada 150 celebrations, COP21, and the Wet’suwet’en resistance and blockade campaigns. I touched on institutional responses like the Art Gallery of Ontario’s (AGO) exhibition *The Anthropocene* (2019), the creation of new climate change roles, and *Sustainable Arts and Green Ecosystems* (SAGE) at the Museum of Vancouver (MOV), which was followed by a description of new and emerging work by artists that obviously outlines a link between pollution and colonialism, including Chief Beau Dick, Bronson Jacques, and Rajni Perera. This chapter served as a backdrop for the emerging interdisciplinary work that brings together pollution and colonialism.

In *Chapter 3: Oil, Gas, and Water Tides*, I conducted a comparative analysis of the works of Tàltàn multidisciplinary artist Tsēmā Igharas and Métis artist Zoe Todd. The chapter began with an anecdote from my friend Emma Hassencahl-Perley about the effects of pollution on the Wolastaq river in her home community to set up the chapter and credit Hassencahl-Perley with teaching me about Indigenous feminist ontologies of the waterways. Hassencahl-Perley has taught me what it means to be attuned to others, to the environment, to surrounding waters. My goal in including this excerpt was not to represent the perspective on pollution nearby yet

another Indigenous or racialized community. I wanted to cite Hassencahl-Perley as a curator and scholar in her own right, as someone who weaves together stories as an Indigenous feminist thinker. The interview perfectly framed my case study on Todd and Igharas. These artists developed works that respond to pollution and colonialism with research and direct inspiration from other disciplines. Zoe Todd's fish drawings illustrate her kinship with fish and her concern for the lives of animals in the face of oil spills and other water pollution in the 'Albertan' oil sands. Todd looks to fish as teachers and relatives to understand how the pollution of the waterways is part of the enactment of settler-colonial violence in 'Canada.' My analysis of three of Todd's fish drawings drew on confluence to expose the various dangers posed by pollution and resource extraction on waterways and lifeforms. Afterwards, I explored Igharas's artistic work around mining, metals, and fossil fuels, her interest in which began with her experience as an archaeological field assistant at Shaft and Galore Creek mine projects. The history of mining and extractive industries in and around Tāltān territories, from the early mining practices of Indigenous communities across 'British Columbia' to current extractive operations at the hands of the oil and gas industry. I argued that Igharas's *Black Gold* (2019-2022) sees resource extraction as a colonial system, rather than discrediting Indigenous nations' historical use of mined metals and substances. *Black Gold* allows Igharas to construct a relationship with fossil fuels that questions the colonial value placed on mining. In my comparative analysis of *Black Gold* and Todd's drawings, I highlighted how both artists develop relationships with non-human entities to communicate the multifaceted issue of pollution and resource extraction in their respective communities. While dealing with different subjects and contexts, this chapter also recognized how the artists both learn from water to resist extractivist or colonial logics that allow for the ongoing plundering of the environment and non-human lives.

In *Chapter 4: Streams of Community Responses to Pollution*, I turned to Black artist Christina Battle's multidisciplinary and participatory arts series, *Forecast* and *seeds are meant to disperse*. My friendship with and admiration of Battle is what made me realize that the quality of the air in the suburban areas, with predominantly racialized communities, where I grew up was noticeably different from other regions with a mostly white population. The result is that part of my own work and research highlights how Black, Indigenous, and racialized communities experience environmental racism. Due to the sheer impact that Battle's work has had on me, I wanted to dedicate a whole chapter to investigate her work. This chapter focused on how Battle has developed interdisciplinary arts projects that engage different participants across geographies on the issue of air, soil, and water pollution in their respective communities. I began with an excerpt from my interview with white settler artist Michelle Wilson, whose experience working with communities as part of her own practice mirrors the questions and negotiations required when undertaking participatory projects. Battle's work was contextualized within a history of environmental racism in 'Canada,' using the examples of Africville, Lincolnville, and the Pictou Landing First Nation. Here, I noted that the high rates of exposure to pollution is exacerbated by racialization. I then moved on to discuss Battle's works that engage participants, encouraging them to understand pollution and the changing weather around them. *Seeds are meant to disperse* supports participants as they plant local gardens, while *Forecast* prompts individuals to anticipate drastic weather changes as a result of climate change. In the *seeds are meant to disperse* series, participants learn how plants like sunflowers can be phytoremediators or hyperaccumulators of toxins. In *Learning the Signals/ Change is Coming*, part of the *Forecast* series, participants understand their capacity to anticipate future weather through a practice of cultivating their own observations of scent, taste, and other sensory experiences. Similarly, *the*

air we breathe asks participants to consider their ability to notice air pollution despite its in/visibility. Participant observations combine with interdisciplinary work to develop meaningful moments of collaboration and potential pollution mitigation. Turning again to confluence, I explained that Battle's work is interdisciplinary and follows the Indigenous feminist praxis of building relationality with and between all forms of life, from the smallest seed to large communities.

In the final section, *Chapter 7: An Estuary, or, Curating Pollution*, I consider how interdisciplinary work can be curated into an exhibition, using the example of *Plastic heart: surface all the way through* curated by the Synthetic Collective (SC). Confluence in this chapter guided my analysis of the multifaceted stories around plastic. This chapter began with a pair of quotes about love, from Dr. Kirsty Robertson, a member of SC and my former professor, and Black futurist adrienne maree brown, that thematically set up the discussion about how SC curated an exhibition that explores plastic pollution from an interdisciplinary perspective. Lessons from Robertson guided this chapter and truly formed the background of my research on the collective. My value for exciting and innovative approaches to pollution from the Arts arose from her, and it is clear in my analysis of the exhibition. In my analysis, I examined how SC's research on plastics and microplastics on beaches across the Great Lakes informed the curatorial decisions that went into the exhibition. More importantly, I noted how SC's research led them to sustainable curating, a practice that eschews the high waste production and energy consumption typical of most exhibitions. I argued that this profound attention to plastic and care for waste (or lack of waste) created a kind of kinship between the curators and plastic in all of its forms, aligned with Indigenous feminist ontologies of water that asks us to develop meaningful relationships with others, not only humans. The exhibition's resistance to waste production

through remnants and residues from previous exhibitions, works, and garbage from installation and shipping was analyzed, and I touched on the exhibition's use of non-linear progressions of time with the addition of works that highlight the lack of plastic biodegradation, like Joyce Wieland's *Home Art Totem* (1966). The exhibition also presented nuanced picture of the history of plastic production and object manufacturing, which was summarized through the description of various works, ranging from Christina Battle's participatory project *THE COMMUNITY IS NOT A HAPHAZARD COLLECTION OF INDIVIDUALS* (2019), to a model of one of the first plastic intrauterine devices (IUD), and works like Megan Musseau's that use plastic to convey a community's culture and histories. I also discussed how *Plastic heart: surface all the way through* reached beyond political borders to recognize the global proliferation of plastics and microplastic waste with the addition of works that responded to the Parisian context, particularly stacked bistro chairs made from "French nylon" or Rilsan Polyamide 11. Each work in the exhibition points to a political, social, economic, or cultural issue that is entangled in plastic. Sustainable and ecofriendly shifts in museums and galleries is a process that is slower to enact change on larger systems, but the fact that I wrote a whole chapter on sustainable curating years after I first learnt about it is a testament to the strong impact that it has had on the arts and cultural sector.

To end this dissertation, I will conclude with four sections. First, I will discuss artworks, exhibitions, and initiatives since 2023 that embrace interdisciplinary approaches and bring together the Arts and the Sciences. Next, I will discuss the gap in my dissertation, which did not fully address the Circumpolar North, or Inuit Nunangaat and introduce Inuvialuk artist Maureen Gruben's recent works to appropriately address this gap. Then, I provide a series of examples of artworks, curatorial dreaming exercises, and exhibitions that project or even predict a future of

interdisciplinary collaboration in the face of pollution. This also serves as an indicator of the direction of my future research. Finally, I end by explaining my dissertation resists common discourses around the world's end due to environmental disasters, or apocalyptic narratives that take precedence in both conversations and research around pollution.

6.1 Recent Surges of Interdisciplinary Work

There has been an increasing number of artists and curators who have drawn attention to waste resulting from artistic production and creation. Kelly Jazvac and Tegan Moore developed practices around salvaging, repurposing, and reusing non-recyclable materials, like plastic. Discussed in my chapter on the Synthetic Collective, Jazvac and Moore have both worked almost entirely with salvaged materials for years. For example, Jazvac's large-scale installation *La machine qui enseignait des airs aux oiseaux* (2017-2020) is made of shredded salvaged billboard, typically hung from the ceilings of a gallery space with thread and metal.⁴⁴⁵ Similarly, Moore reuses and repurposes found objects to create her works. In her retrospective exhibition *Condensations* (2024) at Centre Clark in Tiohti:áke/Mooniyang, Moore created several works that called into question the use of air conditioners to regulate indoor temperatures, while emitting hot air into the atmosphere as part of their function.⁴⁴⁶ The title work, *condensations (when the light thing becomes heavy)* (2024) contains repurposed fibreglass reinforcement mesh, protective plastic mesh, polystyrene foam granules/ bean bag chair filling, and an air conditioner.⁴⁴⁷ Curator Suzanne Carte takes the solution of waste production one step further

445. Kelly Jazvac, *La machine qui enseignait des airs aux oiseaux*. 2017-2020. Salvaged billboard, thread, metal. MAC Montréal. <https://kellyjazvac.com/La-machine-qui-enseignait-des-airs-aux-oiseaux>.

446. Tegan Moore, *Condensations*. 2024. Off-cut maple, oak, & walnut, salvaged fibreglass reinforcement mesh, salvaged protective plastic mesh, salvaged polystyrene foam granules/ bean bag chair filling, leaves, cotton string, plastic cord, cardboard, salvaged air conditioner, degraded condenser fragments, salvaged metal angles. Centre CLARK, Montréal. <https://teganmoore.com/project/condensations/>.

447. Ibid.

with her *Artist Material Fund* (AMF; 2014—). The AMF is a service that collaborates primarily with museums and galleries across Ontario to collect and distribute materials and equipment that would normally be thrown away, making them available for artists or non-artists to pick up for free. These examples demonstrate how arts workers have attempted to reduce waste production in the arts sector at a grassroots level. In fact, artists are generally lower-income and salvaging and repurposing is often a requirement for their artistic practice in the face of high prices of materials and equipment. In the 2020s, there has been an explosion of artists who actively avoid purchasing materials, repurposing and even creating new materials that are biodegradable. Based in Tsí tkaró:nto, Indian artist Deepikah RB repurposes nonrecyclable materials in her artworks and actively experiments with materials like algae, plants, gelatin and other more than human beings. For example, her installation *a place to fall apart* (2024) comprises algae, kombucha, takeaway containers, and plants as part of her speculative world rooted in various futuristic ideas of collaboration and rest.⁴⁴⁸ These artistic innovations around discard are fascinating considering that questions and solutions about waste production are generally researched in the Sciences.

In 2023, I was hired at the Faculty of Fine Arts Gallery (FOFA) at Concordia University as the gallery's first Curator of Sustainability and Engagement. In my role, I worked closely with the Centre for Sustainable Curating at Western University (CSC), under the direction of Dr. Kirsty Robertson, to develop eco-friendly signage options for the gallery's exhibitions. PVC-vinyl lettering and posters are a standard choice for wall didactics in museums and galleries across Canada. However, PVC-vinyl is a particularly toxic form of plastic that does not biodegrade for at least 1000 years. Inspired by the Synthetic Collective's *Plastic Heart: A DIY Fieldguide for Reducing the Environmental Impact of Exhibitions* and research on the waste

448. Deepikah RB, *a place to fall apart*. 2024. Algae, kombucha, takeaway containers, and plants. Ignite Gallery OCADU, Toronto. <https://www.deepikah.com/a-place-to-fall-apart>.

produced by PVC vinyl at the CSC, the FOFA Gallery began developing ecofriendly and sustainable alternatives to PVC vinyl signage, which included experiments with paint, pencil, stencils, handmade paper, vinyl cutters, and fabrication machines like laser cutters. We collaborated with artists and asked them to design title walls and didactics with the gallery's technicians, framing these new approaches as a kind of creative practice. Though we generated new ways of producing ecofriendly signage, we experienced challenges with resource limitations because sustainable signage sometimes requires more work. Additionally, fear of exhibitions not appearing professional, or totally clean and perfect, also posed a challenge, resulting in an often-unintentional reluctance to change standard approaches to exhibition design.

Projects in museums and galleries across the country that respond directly to issues of sustainability continue to rapidly emerge. After 2024, the sustainability initiative at the FOFA Gallery turned to collaboration with engineering students at Concordia University to develop a machine or apparatus that might allow for efficient ways of designing eco-friendly gallery signage. The year of experimentations and conversations in 2023 was necessary for future interdisciplinary collaborations to flourish. The gallery also began programming artworks and exhibitions with a sustainable ethos, or those that focused on ecofriendly practices. For example, in 2024, the gallery held *Tidelines*, an exhibition of works by Kuh Del Rosario, Miri (Maria) Chekhanovich, and Cecilia McKinnon.⁴⁴⁹ The three artists have similar practices focused on gathering, dehydrating, grinding, cooking, casting, and flocking found, recyclable, and compostable materials. Materials like kitchen compost, mineral remnants, household and studio waste, all become “ [...] durational sculptures which desiccate, crystallize, melt, or host new life

449. “Faculty Fine Arts: FOFA Gallery,” Miri (Maria) Chekhanovich, Kuh Del Rosario, Cecilia McKinnon, last modified, 2024, <https://www.concordia.ca/finearts/about/galleries-venues/fofa-gallery/exhibitions/2024/miri-chekhanovich-kuh-del-rosario-cecilia-mckinnon.html>.

[...]”⁴⁵⁰ While this exhibition did not have an interdisciplinary focus per se, it is clear that environmental research on waste and a sustainability lens informed the artworks. Del Rosario’s works in particular often reference the plant-based origins of manufactured industrial materials, asserting a decolonial critique on global production and shipping materials.⁴⁵¹

Recent years have also seen a proliferation of interdisciplinary artistic practices and artists who are focused on addressing the environmental impacts of their work through the use of salvaged, reused, or biodegradable materials. These projects have emerged alongside exhibitions that target issues of pollution and environmental changes, but neither readily consider the relationship between colonialism and pollution. Recent notable projects include works by cross-disciplinary artist Aaron McIntosh, transdisciplinary artist Vladimir Kanic’s living sculptures, and the 2022 exhibition *Cold Regions Warming* at the Whyte Museum of the Canadian Rockies in Banff, Alberta. Aaron McIntosh’s exhibition *Hot House/Maison Chaud*e presents an immersive and interactive installation of real and artificial plants based on the artist’s research on hot houses of the 19th century, queer ecology, and ethnobotany. The artist calls the exhibition a cross-pollination of multiple disciplines catered to the needs of queer communities.⁴⁵² Since 2020, Vladimir Kanic has created what he calls “living sculptures,” a series of algae works that capture carbon, becoming activated when spectators exhale carbon dioxide. Kanic’s research on the capacity for algae to convert carbon dioxide into biomass, which then produces oxygen, informs the creation of the sculptures.⁴⁵³ On his website, Kanic notes that hundreds of these sculptures can be placed in major urban centres where pollution is the highest, purifying the air

450. Ibid.

451. Kuh Del Rosario, “About,” last modified October 2025. <https://kuhdelrosario.com/about-2/>.

452. “Faculty Fine Arts: FOFA Gallery,” Aaron McIntosh: Hot House / Maison chaude, last modified, 2025. <https://www.concordia.ca/finearts/about/galleries-venues/fofa-gallery/exhibitions/2025/aaron-mcintosh.html>.

453. Vladimir Kanic, “Living Sculptures,” accessed December 10, 2025, <https://vladimirkanic.com/living-sculptures/>.

by creating more oxygen. Another more recent exhibition with an interdisciplinary ethos is *Cold Regions Warming*, which brought together paintings, other artistic works, and scientific facts in the form of videos and wall didactics to demonstrate how climate change has affected glaciers, oceans, lakes, and rivers. Artist Gennadiy Ivanov and scientists John Pomeroy and Trevor Davies organized the exhibition based on research by the Global Water Futures initiative at the University of Saskatchewan.⁴⁵⁴ *Cold Regions Warming*, Kanic's sculptures, and McIntosh's hot houses are a small sample of interdisciplinary projects that respond to pollution and environmental issues. My dissertation argues that emerging and future responses will include some kind of critique on settler colonialism, moving beyond interdisciplinary work to fully capture the nuanced effects of pollution.

Recent interdisciplinary work that engages with critiques of pollution as it relates to colonialism includes the exhibition *Meromictic* (2024) and the art ecology project *Finding Flowers* (2019—). Founded in 2019, *Finding Flowers* is a recent interdisciplinary project that targets settler-colonialism as it relates to environmental issues, housed at York University and led by Dr. Lisa Meyers and the late Dr. Sheila Colla (1982-2025). *Finding Flowers* merges artistic creation and environmental biology research to study the possibility for Indigenous gardens to serve as “[...] artworks, as ecological refuge, as spaces for contemplation, and as sites for learning about sustenance and medicine.”⁴⁵⁵ After years of research, plantings, publications, and conversations, the project was included in the 2022 exhibition *Powerful Glow* at the Robert McLaughlin Gallery.⁴⁵⁶ Curated by Lisa Myers, this exhibition featured artistic responses centred around gardens and perspectives on medicine based on knowledge of the land and plants,

454. “Global Water Futures,” *Cold Regions Warming*, last modified October 18, 2022, <https://gwf.usask.ca/articles/2022/cold-regions-warming---fall-exhibition-opening.php>.

455. *Finding Flowers*, “About Us,” accessed December 10, 2025, <https://findingflowers.ca/>.

456. Lisa Myers, *Powerful Glow*. Oshawa: The Robert McLaughlin Gallery, 2022-23.

including works by Ursula Johnson, Peter Morin, Luke Parnell, T'uy't'tanat- Cease Wyss, and Anne Riley. The exhibition was fueled by *Finding Flowers* research but only included artistic responses in its presentation rather than presenting that research in, say, videos and wall didactics. I argue that *Finding Flowers* is a prime example of interdisciplinary research with decolonial critiques at its foundation that will fuel many of the exhibitions in museums and galleries in the near future. With similarities to both Christina Battle's ongoing series, *seeds are meant to disperse*, and the Synthetic Collective's model of interdisciplinary research, *Finding Flowers* further proves that more artists and curators are leveraging interdisciplinary work to propose tangible solutions to environmental issues.

Meromictic (2024) is another interdisciplinary exhibition that resulted from the Synthetic Collective's research and work at the Centre for Sustainable Curating (CSC). Held at the ArtLab Gallery in the Visual Arts Department at Western University in London, Ontario, *Meromictic* is an exhibition that responds to the 2023 submission of a Crawford Lake core sample to the International Commission on Stratigraphy that proposes evidence that the anthropocene as a geological epoch has officially begun. The curatorial team consisted of Dr. Kirsty Robertson, the Centre for Sustainable Curating (CSC), and Robertson's students in the fourth-year museum studies practicum course in the Visual Arts Department. Very soon after the exhibition opened, the submission from Crawford Lake was formally rejected. Regardless, *Meromictic* is relevant because it was sustainably curated and showcased an interdisciplinary body of works. Further, the curators applied the principles of stratigraphy, a primarily scientific concept that analyses layers of rock, to their curatorial approach. By using stratigraphy as a curatorial framework, the curators peeled back the complex layers involved in naming a geological era and marking it through a lake in 'Ontario,' including what it means in the context of a settler-colonial society.

The exhibition included artworks that responded to the anthropocene through water, earth, air, soil, wood, rocks, and minerals, paired with specimens and samples borrowed from science and natural history collections across Southwestern ‘Ontario.’ The title of the exhibition is inspired by the characteristics of Crawford Lake. The lake is said to be meromictic – meaning the layers of water do not mix, allowing for the preservation of sediment deposits in the lakebed that show evidence of human impacts on the world. This is seen, for example, in a layer of radioactive plutonium from nuclear weapons testing.

The curatorial process of *Meromictic* also took inspiration from research, artists, and sources local to London. The late artist Greg Curnoe (1936-1992) was a huge inspiration on the curatorial team’s decision to consider the changing environment around them. Curnoe was a beloved figure who was active in London throughout the 1980s and 1990s. In the early 1990s, Curnoe began conducting archival research about his homes, but failed to find detailed information about the local Indigenous communities and their relationships to the region. Working beyond this gap in archival documentation, Curnoe spent the two years preceding his death extending his research and speaking with Indigenous and settler inhabitants of the area. His research was compiled into two books, one of which outlined in alphabetical listing of over 1,000 Indigenous individuals who lived in Southwestern ‘Ontario’ between 1750 and 1850. His work remains an essential resource for Indigenous land claims in the region of what is known today as London, Ontario. Accompanying the books were some of Curnoe’s artworks that were hanging in the visual arts department since they were donated in 1993. The curators brought these works out of the archive into the exhibition, reminding visitors of Curnoe’s work in the region, particularly in documenting the presence of Indigenous communities who have historical ties to both Southwestern ‘Ontario’ and in ‘Canada.’

The curators also created ecofriendly, handwritten didactics that were displayed with projected facts and videos on walls to offer more information about the samples from Crawford Lake. Alongside this information, the curators included artworks and natural history objects that extended their focus on their surroundings and pollution in local waterways. They collaborated with artist Amanda White to create soil chromatography samples, where each member of the class collected soil from different areas in London, their homes, and Crawford Lake. White used the soil to create the chromatography pieces for each student.⁴⁵⁷ The curators also commissioned a work by Simon Fuh, who typically works with vinyl in creating window installation. Adhering to the curators' no-PVC vinyl rule, Fuh produced a work called *Transfiguration of the Antler River*, which was essentially condensation on the windows of a long corridor. The title of the work came from a misnaming of the Deshkan Zibii River that runs behind the Visual Arts Building and the ArtLab Gallery. Condensation was created from water gathered along the river's edge and laboriously filtered over the course of several weeks. Since the river runs directly through the city of London, during heavy rainfall the city's untreated sewage and storm water often overflows into the river. The sewage overflow is disastrous and often dangerous for the First Nations communities who live downstream, particularly the Oneida Nation of the Thames and the Chippewas of the Thames First Nation — two communities who rely on waters connected to the river. Fuh's work serves as a reminder that the safety and prosperity of communities downstream are intimately connected to the actions in London upstream.

457. Chromatography is an analytical technique used to separate a given mixture into its components. In the case of White's samples, the samples included some kind of liquid and the soil from students. Information taken from: Premnath Mahadevarao, Sujatha and Muhammad Zubair, "Chromatography," *StatPearls* [Internet], last modified January 11, 2024, <https://www.ncbi.nlm.nih.gov/books/NBK599545/>.

6.2 Cracks in the Ice: Looking North

While this dissertation strives to look at case studies across ‘Canada’ to identify an emerging movement of artists working in interdisciplinary ways to address pollution and climate change, I have focused primarily on major urban centres. The result is a knowledge gap — a crack in the ice, so to speak — about interdisciplinary responses to pollution in the Circumpolar or Arctic regions in ‘Canada.’ This gap is partially intentional. I argue that there is a hyperfocus on climate change and environmental issues in places like the Circumpolar North and the Great Ocean (‘The Pacific Islands’). Zoe Todd notes that the Arctic and climate change are “[...] inextricably bound[...].” in public consciousness.⁴⁵⁸ It is true that the Arctic acts as a barometer for the kinds of environmental issues that will be seen globally.⁴⁵⁹ However, the general public often miss how intimately connected the changing climate in these “remote areas” are to ongoing pollution and greenhouse gas emissions in urban centres like Tsí tkarón:to or ‘Vancouver.’⁴⁶⁰ Second, Circumpolar and Arctic regions are often researched and discussed as sites of climate change and endangered wildlife, not places where Inuit, Inuvialuit, Yupik, Kalaallit, Sápmi and other Indigenous communities live. This results in an overall ignorance of Indigenous peoples, their laws, and their philosophies.⁴⁶¹ I do not wish to contribute to the problematic discourses that over-study those regions for what they can tell researchers about climate change rather than work with and listen to communities. This dissertation shifts the focus of climate change and environmental issues by specifically addressing pollution in highly populated areas and sites of

458. Zoe Todd, “An Indigenous Feminist’s Take on The Ontological Turn: ‘Ontology’ Is Just Another Word for Colonialism,” *Journal of Historical Sociology* 29, no.1 (2016, March 1): 6, accessed January 24, 2026, doi:10.1111/johs.12124

459. Sheila Watt-Cloutier, *The Right to Be Cold: One Woman's Story of Protecting Her Culture, the Arctic and the Whole Planet*, (Toronto: Penguin Random House Canada, 2016) 205.

460. Rachel Slocum, “Polar Bears and Energy-Efficient Lightbulbs: Strategies to Bring Climate Change Home,” *Environment and Planning D: Society and Space* 22, no. 3 (2004): 416, <https://doi.org/10.1068/d378>

461. Todd, 6.

industrialization in bigger cities globally. In doing so, I demonstrate that environmental issues are not distant and global, and mitigation strategies must respond to local issues of pollution and emphasize local sites of action.⁴⁶²

My goal of being transparent about my research's shortcomings aligns with Indigenous feminist praxis and feminist research more broadly, which asks scholars and researchers to be reflexive and honest about that which we do not or cannot know. The questions that I posed in this dissertation did not lead me to discussions or artworks that accurately reflect how Circumpolar Indigenous communities respond to the effects of pollution in their homes. Many Inuit and Inuvialuit artists are engaged with issues around pollution and climate change because their communities are deeply affected by environmental degradation, as seen with works by Bronson Jacques and Tim Pitsiulak. In writing this dissertation, I have learned that my future research must ask different questions to more accurately capture the varied responses to pollution and resource extraction that occur in the work of Indigenous artists in Circumpolar regions. More specifically, questions about the Circumpolar North must be centred on how communities are currently being affected by pollution; how they are planning for future relocation or severe environmental degradation in their homes; how to best collaborate with community leaders, artists, Elders, and professionals who understand these regions; and the clear links between pollution in the 'South' and its effects on the 'North.'

The nuances and complexity of environmental issues in the Arctic are exemplified by Nunatsiavummiuk artist Billy Gauthier's 2016 hunger strike in Ottawa, Canada, in response to the construction of a hydrodam in Muskrat Falls that would potentially poison the lake and the

462. Slocum, 413.

surrounding environment.⁴⁶³ Gauthier is an artist originally from Happy Valley-Goose Bay, Nunatsiavut and based in Northwest River, Newfoundland and Labrador (NL). His work includes drawings and mixed media sculptures of bone, ivory, sinew and more, touching on themes of Inuit cosmologies and traditional practices as well as issues of food insecurity, environmental concerns, and substance abuse. He often speaks about the importance of the land and his community in both his life and his work, so his decision to launch a hunger strike to protect the land from the proposed construction of the hydrodam comes as no surprise. In order for the dam to be constructed, a large area of the land in Muskrat Falls must be flooded, but this flooding would lead to methylmercury poisoning of food sources, if the vegetation in the area is not removed.⁴⁶⁴ Gauthier was especially concerned about the threat posed to seals, as the seal hunt is not only a culturally important activity for his community, but a source of sustenance. Gauthier launched a hunger strike to insist that the vegetation be removed prior to construction to prevent future methylmercury poisoning. Eventually, the province met with Gauthier and agreed to research the effects of the hydrodam, ending Gauthier's ten-day hunger strike. While the hydrodam was ultimately constructed without the promised research, Gauthier was able to delay the construction at least for a short period. Not only that, but many across the country publicly supported Gauthier in his strike, which likely pressured the government into halting the construction. For example, the Canadian Artists' Representation/ Le front des artistes canadiens

463. Leah Sandals, "Inuit Artist on Hunger Strike to Protest Hydro Project," *Canadian Art*, October 17, 2016, <https://canadianart.ca/news/inuit-artist-on-hunger-strike-to-protest-hydro-project/>.

464. Evan Careen, "'I'd much rather just be out on the water in Labrador': 20 Questions with Inuk artist and activist Billy Gauthier," *Saltwire*, January 22, 2024, <https://www.saltwire.com/atlantic-canada/lifestyles/id-much-rather-just-be-out-on-the-water-in-labrador-20-questions-with-inuk-artist-and-activist-billy-gauthier-100892815/>.

(CARFAC) wrote a letter expressing their support for Gauthier's strike and called for the NL government to engage meaningfully with Gauthier and his fellow strikers.⁴⁶⁵

As part of my research for this dissertation, I expected that I might consider Inuvialuk artist Maureen Gruben's work as a case study, but I quickly realized that the framework of my dissertation's argument did not accurately capture the nuanced experiences of environmental issues particularly across Inuit Nunangaat. This is especially apparent in Gruben's artistic work that has touched on themes of environmental degradation, waste, and pollution. It is clear that Gruben is drawn to repurposing and salvaging materials, like in *Big Hello* (2021), an installation made up of used phone cases, and *Moving with joy across the ice while my face turns brown from the sun* (2019), a land installation that borrows sleds from families in Tuktoyaktuk. These material choices perhaps indicate Gruben's awareness of the environmental issues caused by large-scale waste production, but more likely hints at her own fascination and deftness with repurposing materials. Gruben's photographic series *Annivik* (2022) and ceramic installation *Qikuryuaq (Clay Hills)* (2023) are exemplary of her attention to the changing environment in the hamlet of Tuktoyaktuk, where she currently lives.

In *Annivik*, Gruben documents a landfill in Tuktoyaktuk, presenting the documentation as large-scale photographs with text superimposed on each image. The term *annivik* is Inuvialuktun, and it is taken from a misspelled 'Exit' sign that Gruben found at the landfill. In Inuvialuktun, *annivik* does not mean 'to exit' per se; it has a nuanced meaning that could suggest a 'birthing place.'⁴⁶⁶ The text on the photographs, in both English and Inuvialuktun, was taken from the

465. "CARFAC National Stands with Inuk Artist Billy Gauthier and Muskrat Falls," CARFAC, last modified October 23, 2016, <https://www.carfac.ca/news/2016/10/23/carfac-national-stands-with-inuk-artist-billy-gauthier-and-muskrat-falls/>.

466. Maureen Gruben, *Annivik*. 2021-2022. Photographs. Canoe Landing, Toronto. <https://www.maurengruben.com/annivik-at-canoe-landing>.

stories of various Elders and community members from the 1900s, many of which were gifted to her.⁴⁶⁷ Gruben is likely responding to the waste management issues in Tuktoyaktuk, where the main landfill is only 260 metres from the water. This poses a huge problem, as Tuktoyaktuk is particularly vulnerable to coastal erosion revealing years of toxic landfill waste. *Annivik* is a response to the shift towards consumer culture, which has caused the landfill to grow so quickly:

I kind of put verses together more like poetry and superimposed them onto the image just to show the difference of our life today and our contemporary world and how clean and resourceful our ancestors were.⁴⁶⁸

The juxtaposition of this text with the commentary on waste production provides a critique on overconsumption. Waste and landfills in many Arctic communities are a huge problem, particularly because the region's remoteness makes it difficult to get rid of waste, recycle, and even compost.⁴⁶⁹ Equally, the photograph of the landfill showcases the abundance of materials that can be inspiration for future projects, something that is already an important part of Gruben's practice. In this way, Gruben's view on waste cannot simply be seen as negative, but is rather a more nuanced perspective on consumption, like the word *annivik* itself.

Qikuryuaq (Clay Hills) (2023) is a prime example of Gruben's commitment to sourcing pre-existing materials to create her works, while also commenting on the changing environment in Tuktoyaktuk. Installed in her solo show *The land that used to be* (2023), *Qikuryuaq (Clay Hills)* is a ceramic installation of about 1000 clay beads that Gruben made with her family and members of her community. Gruben sourced the clay from Husky Lakes, a site where the shoreline has begun to erode on a ridge of the high banks of the lakes between Inuvik and

467. Joanne Stassen, "Inuvialuit artist connects Toronto's Gardiner Expressway with Arctic landscape," *CBC News*, February 13, 2022, <https://www.cbc.ca/news/canada/north/bentway-skate-trail-inuvialuit-art-maureen-gruben-1.6349270>.

468. Ibid.

469. Emma Tranter, "Northern communities at risk without proper waste management: report," *CBC News*, March 24, 2021, <https://www.cbc.ca/news/canada/north/northern-communities-at-risk-without-proper-waste-management-1.5961870>.

Tuktoyaktuk due to the melting permafrost. Gruben's use of the clay from the eroding shoreline references what is lost, or the environment that seems to disappear due to drastic weather changes. As the melting permafrost creates new sources of naturally occurring clay, the result could be reclamation practices like Gruben's community, or other innovative ways of using clay to revitalize cultural practices or sustain community.

Melting permafrost and eroding shorelines is indeed a huge issue for Gruben's community in Tuktoyaktuk. Tuktoyaktuk is one of many Circumpolar Indigenous communities that will need to relocate further South or inland within the next thirty years.⁴⁷⁰ Historically, many scientists have visited and studied Tuktoyaktuk to understand how climate change is affecting the area. More recently, a group called NUNA worked with the local community to test the air, the permafrost, the waters, and other aspects of the changing landscape. While Gruben's artwork cannot be accurately classified as interdisciplinary, the collaboration between community members in Tuktoyaktuk and NUNA is certainly identifiable as an interdisciplinary collaboration.⁴⁷¹ The community members are not all scientists in the Western sense of the word, but they carry a very intimate knowledge of the land. They might be artists like Gruben, or Elders, or they may have worked as local politicians and activists. What this indicates is that perhaps Arctic Indigenous artists, who are also community leaders or who work in different committees, are in fact engaged in interdisciplinary projects, but this work has not yet been expressed as artistic outputs in 'Canada.' That being said, I believe that as the environment becomes more precarious in the coming years, more research committees will be formed,

470. Crown-Indigenous Relations and Northern Affairs Canada, "Hamlet of Tuktoyaktuk: Climate Change and Coastal Erosion," *Government of Canada*, July 10, 2020, <https://www.canada.ca/en/crown-indigenous-relations-northern-affairs/news/2020/07/hamlet-of-tuktoyaktuk-climate-change-and-coastal-erosion.html>.

471. Canada-Inuit Nunangat-United Kingdom Arctic Research Programme, "Nuna – Changing ground conditions, Community resilience, technological solutions," accessed December 10, 2025, <https://www.cinuk.org/projects/nuna/>.

resulting in more collaborations across disciplines, even artistic ones. Art remains an integral strategy to make issues tangible for audiences in different places, and I firmly believe that it will continue to be utilized to generate new solutions to curb the effects of pollution. Gruben's work further proves that different questions are required to best understand how local communities in at-risk areas are responding to environmental issues.

6.3 The well of what's to come

To conclude my dissertation, I offer three curatorial dreaming exercises that project a future of interdisciplinary collaborations to deal with the consequences of pollution. These curatorial dreaming exercises are based on my research for this dissertation and all of the work, courses, and exhibitions that I have experienced over the past ten years of my academic and professional life. Coined by museum studies scholars Erica Lehrer and Shelley Ruth Butler in *Curatorial Dreams: Critics Imagine Exhibitions* (2016), curatorial dreaming is an “[...] engaged method of cultural analysis and critique[...]” encouraging the production of imaginary exhibitions.⁴⁷² Lehrer and Butler named this approach as a way for curators and arts workers to imagine alternative or new responses to complex issues of race, sex/gender, migration, and colonialism. The goal is to think outside of institutional boundaries and without the confines of institutional restrictions to curate exhibitions. I first came across curatorial dreaming in my undergraduate degree almost ten years ago. Much has shifted in the Canadian arts sector since this moment. The book preceded exhibitions and online art networks that arose during the Canada 150 celebrations in 2017, and more notably, before a global pandemic in 2020 that forced museums and galleries to overhaul their operations.

472. Shelley Ruth Butler and Erica Lehrer, “Introduction: Curatorial Dreaming,” in *Curatorial Dreams: Critics Imagine Exhibitions*, eds. Shelley Ruth Butler and Erica Lehrer, (McGill-Queen's University Press, 2016), 6.

One major critique of Butler and Lehrer’s book is that curatorial dreams remain as dreams, and anti-colonial and decolonial work requires real reparations. However, curatorial dreaming can nonetheless be a useful tool for how we might be able to imagine exhibitions that are radically different from what has been done previously, and that confront multifaceted problems that have been fueled by settler colonialism, like pollution. Interdisciplinary solutions that tackle settler colonialism and pollution can still be hard to imagine, especially because interdisciplinary work has only begun to emerge in the last several years, with a few examples outlined in this dissertation. Here, I employ curatorial dreaming as a short creative exercise that gestures towards the future of interdisciplinary collaborations around three prompts that I encountered in my research for this dissertation. Like the ebbs and flows of water, my curatorial dreams move back and forth between ideas, artists, and disciplines that I have written about throughout my dissertation, and some new ones, too.

6.3.1 You are impossible

For decades, marine biologists and oceanographers sunk Styrofoam cups and objects deep into the ocean and watched them emerge— shrunk to a fraction of their original size. Some scientists make a creative practice out of it by decorating the exterior of the cups with colorful patterns, phrases, and images. Scientists have noted that the shrunk Styrofoam can serve as a visual indicator of extreme water pressure, both as a warning to scientists themselves about the level of water pressure they will experience when diving deep into the water for research, and to the general public who have little knowledge of our aquatic worlds.⁴⁷³ These Styrofoam pieces are reminders of the longevity of plastic waste, materials that rarely biodegrade

473. Mindy Weisberger, “Here's What Happens to a Styrofoam Cup Under the Deep Sea's Crushing Pressure,” *Live Science*, June 11, 2018, <https://www.livescience.com/62782-styrofoam-cups-deep-sea-shrunkencupoff.html?utm>.

and outlive our human lifespans. They also remind us of the prolific presence of plastic waste in waterways, harming all forms of life and the waterways themselves.

You are impossible would be an interdisciplinary exhibition that inquires about the abundance of plastic in the Earth's waterways, taking the intentionally shrunken Styrofoam objects as a prompt. The exhibition includes a large installation of 100 deformed Styrofoam cups, heads, mannequins, and other objects collected from scientists across 'Canada,' stacked upon each other like a garbage dump. This installation accompanies research on the effects of plastic pollution in lakes, rivers, oceans, and seas around 'Canada,' including the communities and creatures most affected by pollution. The exhibition takes its name from artist Tegan Moore, who created *You are impossible* (2003) by submerging a disposable polystyrene cup 250 metres underwater with the help of her marine biologist uncle. The water pressure at this depth inevitably shrunk the cup by squeezing the air out of it, the phrase "you are impossible" deformed but just legible enough to read. Almost twenty-years later, the deformed cup may look dishevelled, but it continues to persist in some physical form. Other featured works include Kelly Jazvac's *Plastiglomerate* ready-mades and Kelly Wood's photographs on garbage and waste.

6.3.2 In the Old Man's Beard

Have you ever really looked at an old man's beard? It's colloquially known as the hair that grows from the face of an elderly man, but it's actually called lichen or even bearded lichen. It is known to be kind of a contradiction, a symbiosis of algae and fungi, but it's really neither and both. Lichen has the properties of both fungi and algae, allowing it to thrive in wet and dry conditions. Inspired by this contradiction that holds so many possibilities, Cree artist Natalie Rollins put lichen in her handmade moccasins, creating a contrast between something natural or

organic and something assembled or manufactured.⁴⁷⁴ *In the old man's beard* would explore the question of using natural or organic materials to create new works or objects. In a world where everything feels manufactured, even intimate moments in our interpersonal relationships, what does natural really mean? What does it mean for humans to consistently use elements from nature to better our own lives? And how do we envision reciprocity with our natural environment? *In the old man's beard* brings together a range of artworks that question, use, and reuse naturally occurring materials, while raising questions about the importance of taking care of the environment which always takes care of us. Scientific research on the interconnectedness of plants and animals forms the background of the exhibition, as well as Indigenous ways of knowing about the environment from 'Canada,' Asia, Africa, and South and Central Latin America. The exhibition would feature works by Natalie Ashley (Cree), Josh Jensen (Canadian), Deepikah RB (Indian), Haruna Sugisaki (Japanese), and Neva Nowazek (Métis).

6.3.3 Flowers and Sunshine

If you do an exhibition that has a topic like climate change, I think you *have* to use these sustainable techniques. But I think if you do an exhibition on, I don't know, flowers and sunshine, you can still use them.⁴⁷⁵

Flowers from Home is a sustainably curated exhibition that reimagines the relationships different artists have to place through flowers local to their home communities. Featured artists engage with flowers and offer stories on the importance of flowers in helping them to understand their own relationships to the places and the people most precious to them. Accompanying these artworks are scientific research on the potential for flowers, like sunflowers, to act as phytoremediators or hyperaccumulators of toxins and chemicals in soils, and the potential for

474. Jasmine Sihra, "One Thing: Feel the Lichen: On Natalie Ashley's Moccasins," *c mag*, August 15, 2025, <https://cmagazine.com/articles/one-thing-feel-the-lichen-on-natalie-ashleys-moccasins>.

475. Kirsty Robertson in discussion with the author, February 29, 2024.

flowers to purify the air we breathe. *Flowers from Home* aims to open up the possibilities for solidarities and lines of similarity between cultures and communities by sharing stories about flowers from various places and contexts. This exhibition believes that everyone — from children, to artists, to scientists, to the elderly — has a story about a flower; what’s yours?

Flowers are known to support, remedy, and create life. Aligned with this, *Flowers from Home* has been sustainably curated to avoid pollution and waste that causes severe harm to humans and non-humans alike. Featuring works by Rajni Perera (Sri Lankan), Nancy Mike (Nunavummiuk), Christina Battle (Black), Zoe Todd (Métis), Kuh Del Rosario (Philipinx), Invinguak Stork Hoegh (Kalaaleq), the exhibition presents works that have been sustainably curated and installed. The walls are painted with naturally pigmented paint made from crushed flowers, and the paint is used as ink to write didactics on the walls. The labels are made with compostable kitchen materials and dried flowers, which easily biodegrade. Flowers adorn each artwork, with the expectation that they will fade over time. All plinths and installation materials have been reused from previous exhibitions, and photographs have been printed on biodegradable paper with non-toxic inks. Like the lifespan of a flower, the exhibition is bright and colourful at first and slowly perishes away as time goes on, becoming grey.

6.4 On the Importance of Resisting Environmental Apocalyptic Narratives

Potawatomi environmental scholar Kyle Whyte has written that Indigenous peoples are post-apocalyptic, having already dealt with the end of their “worlds” as a result of settler-colonial expansion in their lands and homes. He points out that settler’s current experiences of the climate crisis is a “back-to-the-future” for Indigenous Peoples, who have already experienced

apocalypse and drastic environmental challenges with the onset of colonialism.⁴⁷⁶ Because of this experience with drastic changes to land and life, Whyte argues that Indigenous people have an ability to reckon with climate and environmental changes induced by settler-colonialism. In general, I agree with Whyte's use of the term apocalypse to explain the ways in which changes to the land have affected Indigenous communities' lives, rights, and sovereignty.⁴⁷⁷ However, ideologies of apocalypse have totally seeped into mainstream media coverage of climate disasters, with no apparent solution in sight, resulting in a society stuck in crisis mode. As Heather Davis notes, the idea of the apocalyptic "end of Man" removes our responsibility to the future, whatever that may look like.⁴⁷⁸ Haraway equally points out that in order to plan and organize for better conditions among climate disasters, we must think *with* urgencies, without myths of the apocalypse — without succumbing to the future.⁴⁷⁹ Similarly, Joseph Masco writes "Put directly, crisis talk without the commitment to revolution becomes counterrevolutionary."⁴⁸⁰

What these scholars are signaling is the importance of actually planning for and building a future with the intention of shaping change. The absence of revolutionary commitments in discourse around the environmental crisis makes it easy to fall into apocalypse discussions (and we half-heartedly joke about the closeness of the end of the world). In this dissertation, I have resisted apocalyptic narratives by drawing out possibilities for action and analyzing each artist's

476. Kyle Whyte, "Indigenous Climate Change Studies : Indigenizing Futures, Decolonizing the Anthropocene," *English Language Notes* 55, no. 1 (2017): 157, accessed January 24, 2026, <https://muse.jhu.edu/article/711473>.

477. Whyte, 155.

478. Heather Davis, "Life and Death in the Anthropocene," in *The Routledge Companion to Critical Approaches to Contemporary Architecture*, eds. Swati Chattopadhyay and Jeremy White, (New York: Routledge, 2019), 355, <https://www.taylorfrancis.com/chapters/edit/10.4324/9781315688947-8/life-death-anthropocene-heather-davis>.

479. Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene*, (Durham: Duke University Press, 2016), 35

480. Joseph Masco, "The Crisis in Crisis," *Current Anthropology* 58, no. S15 (February 2017): 73, accessed January 24, 2026, <https://doi.org/https://doi.org/10.1086/688695.z>.

work to envision futures rooted in the well-being of all, like Indigenous feminisms teach. The goal was not to be overly optimistic and land into wishful thinking. I understand the struggle, pain, and death that is part of something as insidious as pollution. Indigenous feminisms ask us to work with and stand *inside* of struggle as it is generative of possibilities for life in the future. I do not forget the resiliency and hope that is part of how communities organize and take care of each other. And as I learnt in my interview with Christina Battle, solutions to environmental issues must be exciting and creative. The artists and curators in this dissertation have taught me that these solutions *can* be creative, hopeful, and respond to our own capacity to care for one another. I look forward to collectively imagining and planning our future(s) together.

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