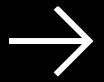
A WORKBOOK





PRODUCED BY EMILY ROEHL IN COLLABORATION WITH THE CIVIC LABORATORY FOR ENVIRONMENTAL ACTION RESEARCH (CLEAR)

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INTRO-DUCTION



How might we think about the tensions in attempting to address colonialism in mapping some of our daily engagement with oil?

Maps are wrapped up in systems of power. Maps are both metaphors and material objects with material effects in the world. Maps are symbolic representations of spatial and other relations, and they have been used to violently shape space and relations (Goeman 2013).

Oil fuels colonial power past and present (Tuck and Yang 2012, 31). At the same time, oil is a part of our lives in both obvious and invisible ways. The diffuse daily uses of petrochemicals often make them difficult to register as oil and harder still to track back to a source or imagine into a future that is less reliant on fossil fuels. As much as we might like to hate oil (or, more specifically, the corporations who profit off of it at the expense of people and ecosystems), it fuels pleasures and pain, the spectacular and the mundane (Wenzel 2014).

Maps and resources like oil have an intertwined history. Some of the earliest map-making efforts of the settler governments of Canada and the U.S. were driven by a desire for resources. Aerial photography, in particular, has been a powerful tool of resource identification and extraction. For this reason, the aerial landscape image and the maps it helps create are not neutral or natural representations of "the real" but deeply enmeshed in systems of power.

The colonial relationship with oil is perhaps the paradigmatic colonial relationship with land: seeing what Eve Tuck and Wayne Yang identify as "land/water/air/subterranean earth" (2012, 5) as a resource to be exploited at all costs. This relationship is often obscured by narratives that naturalize oil, or make it seem like a part of daily life that is so abundant and necessary that it is impossible to imagine a future without it or articulate our current relationship with it.

This workbook contains excerpts from artists and scholars who have grappled with the complicated histories of mapping and/or oil. It offers questions for reflection that guide you through a process of thinking and responding. The workbook asks you to consider your own spatial and resource relations in terms of land and colonialism. The workbook concludes with three prompts: proposals for ways you might turn your reflections into creations. It also includes a space for adding your own prompts, suggestions for further acts of creation or alterations of the prompts as written.

By asking you to engage with some aspect of your daily relationship with oil to produce something like a map (though it may look nothing like a map and you may decide to drop the word "map" altogether) is to work against dominant narratives of oil while situating yourself within the systems of colonial power it fuels, both in terms of mapping (spatial relations) and oil (resource relations).

QUESTION: WHAT KINDS OF STORIES DO MAPS TELL?

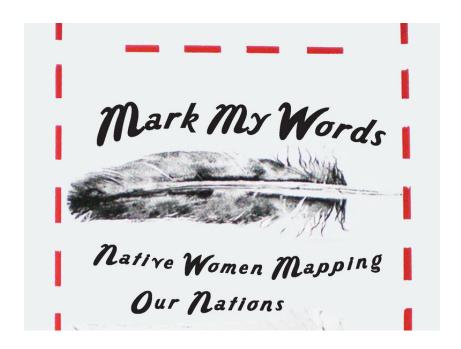
QUESTIONS

| Do you m | ake or use maps in your daily life? What kind? |
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| Think ohe | but the pereportive and earle of a man you have erected or used |
| | out the perspective and scale of a map you have created or used. Int of view are you looking from and at what distance? |
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| What kind include? | ds of information, symbols, and relationships does this map |
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| What values does this map represent? |
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| What story is this map telling? |
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| How might changing the perspective, scale, information, symbols, or relationships change the story this map tells? |
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MAPPING RELATIONS

A SUMMARY OF THE INTRO TO MISHUANA GOEMAN'S MARK MY WORDS: NATIVE WOMEN MAPPING OUR NATIONS (MINNEAPOLIS: UNIVERSITY OF MINNESOTA PRESS, 2013).



"Maps, in their most traditional sense as a representation of authority, have incredible power and have been essential to colonial and imperial projects" (Goeman 2013, 16).

Maps, authority, power, and colonialism are intertwined. In the introduction to *Mark My Words: Native Women Mapping Our Nations* (2013), Mishuana Goeman (Tonawanda Band of Seneca) illustrates the ways that maps have been used as part of a process that "supports and naturalizes race, gender, heteronormativity, and colonial power relations" (16).

The presumed "reality" represented by dominant map-making practices since at least the 18th century and "the development of the 'scientific' modern map--one of geometric, abstract grids...coincides directly with Europe's war on Indigenous peoples" (17).

Goeman reads the narratives of Native women as an alternative mode of mapping. Whereas "colonization resulted in a sorting of space based on ideological premises of hierarchies and binaries" (2), Goeman identifies in Native women's narratives the "simultaneously metaphoric and material capacities of map making...to generate new possibilities" (3). Stories are central to Goeman's project and to the alternative forms of map making she analyzes, as stories "influence our everyday practices" (7). The literary interventions Goeman analyzes are "imaginative" (they are poems, novels, short stories), and they challenge "the 'real' of settler colonialism society," which is "built on the violent erasure of alternative modes of mapping and geographic understandings" (2).

Goeman's work engages with a number of scholars in humanist geography and spatial justice studies. Drawing on Doreen Massey's work in feminist geography, Goeman challenges the idea that space is nothing but a "surface of expanse and enormousness" (5), pointing instead to Massey's definition of space as a "meeting-up of histories" (qtd. on 5).

Place, for Goeman, is "more than just the point on a graph or locale, but that which carries with it a 'way-of-being-in-the-world'" (9). Quoting Ruth Wilson Gilmore's work on racism and geography, Goeman highlights the relationship between power, space, and justice: "if justice is embodied, it is then therefore always spatial, which is to say, part of the process of making place" (qtd. on 12).

Following Édouard Glissant, Goeman calls for "alternative spatial practices to that of making land into property or treating land as purely a surface upon which we act" (15).

Goeman argues that "many histories and ways of seeing and mapping the world can occur at the same time," and "our spatialities were and continue to be in process" (6). Ultimately, Goeman shows how Native women's narratives (re)map colonial understandings of space and place to "sustain vibrant Native futures" (3).

QUESTION: HOW MIGHT WE IMAGINE ALTERNATIVES TO THE "DOMINANT SPATIAL PRACTICES" AND COLONIAL RELATIONS TO LAND AND RESOURCES IN EACH OF THE PLACES WE LIVE?

QUESTIONS

| | out the place where you are right now. Notice it. Explore it with all of |
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| your sens | ses. What stands out to you about this place? |
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| How wou | uld this place be represented on a traditional map? |
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| A / I = | |
| vvnat are | some of the "dominant spatial practices" in this place? |
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| What kinds of relations are enacted or experienced in this place? |
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| How is this place a "way-of-being-in-the-world"? |
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| If you could map this place not as a locale but as a way-of-being-in-the-world, how might you do this? What information, symbols, or relations would |
| you want to include? |
| |
| |

LOCATING OIL

A SUMMARY OF JENNIFER WENZEL'S "HOW TO READ FOR OIL" (RESILIENCE: A JOURNAL OF THE ENVIRONMENTAL HUMANITIES 1.3,

FALL 2014: 156-161.)





BEOTHUK LAND AND WATER, ST. JOHN'S HARBOUR, NEWFOUNDLAND AND LABRADOR (PHOTOGRAPH BY EMILY ROEHL, 2016)

"OIL IS EVERYWHERE AND NOWHERE" (WENZEL 2014, 156).

Many energy humanists have noted that "energy systems are shot through with largely unexamined cultural values" (LeMenager 2014, 4). Oil in particular is a slippery substance that moves through a diffuse network of extraction, distribution, and use that, some scholars argue, resists representation (LeMenager 2014, 13–14; Petrocultures Research Group 2016, 45–49). As such, the study of oil and the complex cultural, political, and economic systems it fuels requires an approach that asks people to resist traditional disciplinary enclosure and its methodological limitations.

"THERE IS TOO LITTLE OIL IN THE WORLD, AND TOO MUCH" (WENZEL 2014, 157).

In a brief article for *Resilience*, Jennifer Wenzel talks about her love of flying. She shares this passion with her students in order to point out the fact that oil is not only a material resource with complicated and dangerous histories but a source of pleasure. While oil is a part of so many objects and processes in our daily lives (from a plastic coffee cup to the gas in a car), it is also obscured by complicated industrial processes and narratives: oil as abundant, oil as natural, oil as economically necessary, oil as a technological marvel. Wenzel wonders, "how do different kinds of texts...either work against or contribute to oil's invisibility" (157).

In order to help her students engage with oil in terms of their own experience, Wenzel assigns an "oil inventory" activity inspired by Edward Said's quotation of Gramsci in the introduction to *Orientalism*: "The starting point of critical elaboration is the consciousness of what one really is, and is 'knowing thyself' as a product of the historical process to date, which has deposited in you an infinity of traces, without leaving an inventory" (qtd. on 158). The assignment "asks students to trace the presence (and absence) of oil in their lives and to consider what it would mean to 'know themselves' in relation to oil" (158).

Through this process, students are able to see that the oil they engage with on a daily basis links them to "distant others," whether those are the people and other living things in sites of extraction, shipment, refining, production, distribution, or consumption. These relations are complex and difficult to track precisely, but by asking her students to produce a narrative inventory of some of these relations, Wenzel provides them with an opportunity to locate themselves, if only partially and speculatively, in the web of oil's relations and thus to produce a text that works against oil's invisibility.

QUESTION: WHAT WOULD IT MEAN FOR YOU TO "KNOW YOURSELF" IN RELATION TO OIL?

QUESTIONS

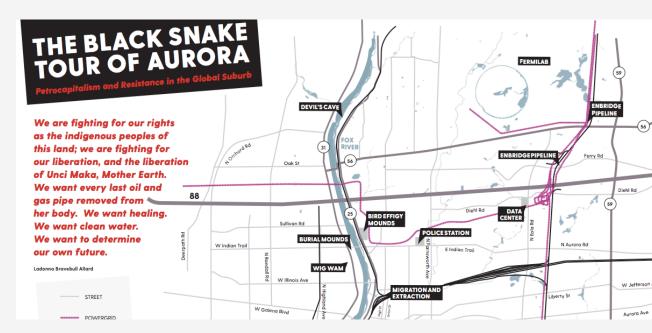
| I hink about the oil you encounter on a daily basis. Make a list of some of the products and practices of your life that rely on oil. |
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| er dadie er ia praezie er year me zriaz rei yerrem |
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| Were you surprised by any of the itms on your list? How often do you think about the products and practices of your daily life that rely on oil? |
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| Look at your list again. How do you feel about each of the items on this list? |
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| the first t | some of the obvious ways you interact with oil? These might be hings you thought of as you were making your list. Where do these ons take place? |
|-------------|--|
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| | some less obvious, invisible, or taken for granted ways act with oil? Where do these interactions take place? |
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| with oil? | nditions might make you become aware of your daily engagement |
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INSPIRATION

A SELECTION OF PROJECTS THAT HAVE USED MAPS OR MAP-LIKE PLATFORMS TO EXAMINE LAND, OIL, AND RELATIONS.





ROZALINDA BORCILĂ, "THE BLACK SNAKE TOUR OF AURORA," *FROM DAY-TRIPPING THE PETROCAPITAL* (2016-)

Over the past two decades, field guides and other spatial forms of critical practice have emerged across the arts, humanities, and social sciences. For example, groups like the **Los** Angeles Urban Rangers have offered infrastructure tours that illuminate the ecological and social histories of the oftenoverlooked built environment. In a similar vein but with more explicit political aims, artist and cyber activist Ricardo Dominguez, working with members of the Electronic Disturbance Theater, created the Transborder Immigrant Tool. This cell phone app for immigrants crossing the U.S.-Mexico border combines GPS navigation with recordings of poetry, providing the location of water caches and offering users the option of listening to poems of welcome that offer information for surviving harsh desert environments.

In the Chicago suburbs, Rozalinda Borcilă has created a series of maps and walking tours that introduce participants to the complicated web of resources and finance that hide in plain sight and fuel numerous forms of injustice, including the siting of fossil fuel waste in communities of color. Her project, *Day-Tripping the Petrocapital*, is ongoing and includes maps like the one featured above.

In each of these cases, mobile media (a guided tour, a cell phone app, a printed or PDF map) intervened in participants' perception and embodied experience of a place while critically interrogating the social and cultural constructions that shape that space.



NATIVE LAND DIGITAL, NATIVE-LAND.CA

Many groups have also created multi-authored and crowd-sourced maps and map-like projects that share information about land, history, and environmental justice. For example, Native Land Digital (native-land.ca) uses a combination of Mapbox and Wordpress to create a web and mobile map that identifies Indigenous territories with colored overlays on a map of the world. The mission of Native Land Digital is to "go beyond old ways of talking about Indigenous people and to develop a platform where Indigenous communities can represent themselves and their histories on their own terms."

EJAtlas, or the Global Atlas of Environmental Justice (https://ejatlas.org/), also displays a world map but superimposes color-coded dots to indicate various categories of environmental justice struggles. The map is a project of the Institute of Environmental Science and Technology (ICTA) at the Universitat Autonoma de Barcelona and is searchable in seven languages.

MORE INSPIRATION:

ENRICH PROJECT

HTTPS://WWW.ENRICHPROJECT.ORG/MAP

FORENSIC ARCHITECTURE

HTTPS://FORENSIC-ARCHITECTURE.ORG

MAPPING INDIGENOUS LA HTTPS://MILA.SS.UCLA.EDU

QUEERING THE MAP

HTTPS://WWW.QUEERINGTHEMAP.COM

POSSIBLE PROMPTS



Prompt #1 DRAW A MAP

Keeping your own spatial and resource relations in mind, visually illustrate some aspect of your daily engagement with oil.

Prompt #2

HACK A MAP

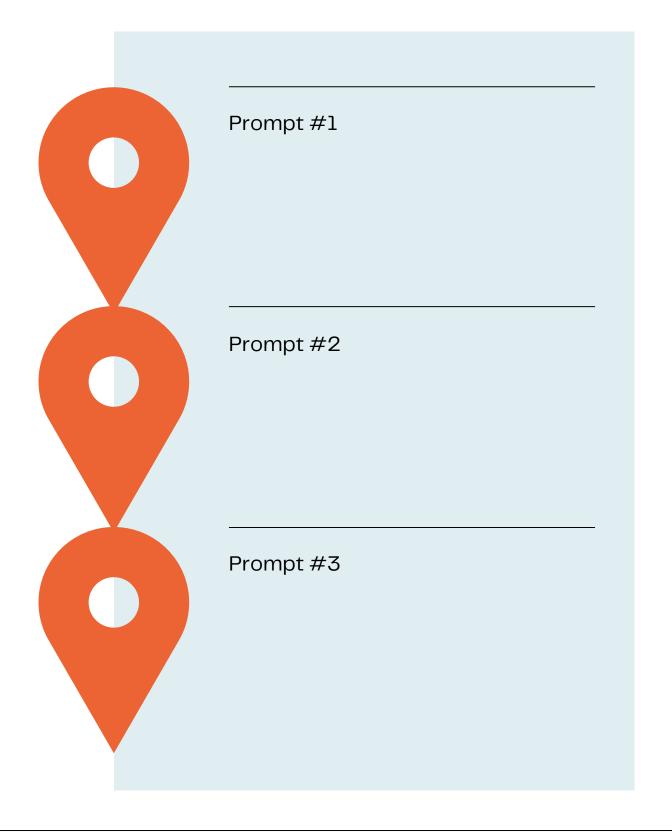
Keeping your own spatial and resource relations in mind, alter an existing map to express some aspect of your daily engagement with oil.

Prompt #3

STORY A MAP

Keeping your own spatial and resource relations in mind, tell a story about some aspect of your daily engagement with oil.

PROPOSE A PROMPT



MAKING A MAP KEY

Like people, maps should introduce themselves, not pretend to be self-evident or a neutral representation of reality; they should declare their relations and the positionality of their maker(s).

Traditional maps often have a "key" – a section of the map that indicates the meaning of symbols and other features on the map. This is similar to and often a part of a map "legend," which provides more general information and explains how to use a map.

Think about the maps that you create or use in your daily life. What kind of information is typically contained in the map key? How does the map key tell a story about the map and the information it contains and relationships it represents? What stories are difficult to discern using a traditional map key?

Keeping your own spatial and resource relations in mind, imagine that you are creating a new "key" for one of the maps that you create or use in your daily life. What kinds of information would you want to see in such a key? Is "key" the best term to describe this map element? What other terms might you use?

On the next page or in your own notes, make a list of elements you might like to see in a map key, either for a map you have already created/use or a map you might create in the future (including any map you might make in response to one of the prompts in this workbook).

ELEMENTS TO INCLUDE IN A MAP KEY



GALLERY

The next few pages contain documentation produced by five of the participants in the first workshops that used this workbook. Thank you to all the CLEAR members who attended the initial two-part workshop during the summer of 2021 and to the folks who agreed to share their work here.

GIRISH DASWANI

Hand-drawn map of the neighborhood, with Santosh Blouin-Daswani, 2021

This project started with a hand-drawn map of my urban neighborhood in downtown Tkaronto. I began by rethinking the places in this neighborhood that also represented spaces of love, connection, and intimacy and used a symbol of a heart to denote their locations on this map. These included our home, my son's school and the green areas or parks where we often play. In re-thinking our walks to and from these places, I noticed the number of constructions sites as well as road and building projects taking place around us. One significant observation was the destruction of old buildings and new condo construction projects being erected around my son's school and to and from our walks from our home to school, parks, and green places.

I realized that nearly everything in our urban environment where intimate relations are created is permeated by chemicals that come from fossil fuels. Diesel is used for trucks, public transport, and heavy equipment and the fumes are what we breathe in every day. My son drew some of the heavy equipment he saw around him and wanted to show the smoke and pollution that they emitted. Most construction materials are also engineered using polymers and its use in the building industry create a toxic accumulation that fill our air, water, and physical bodies. I realized that our spaces of intimate connection were also connected to toxicity and a disregard for human life.





Construction

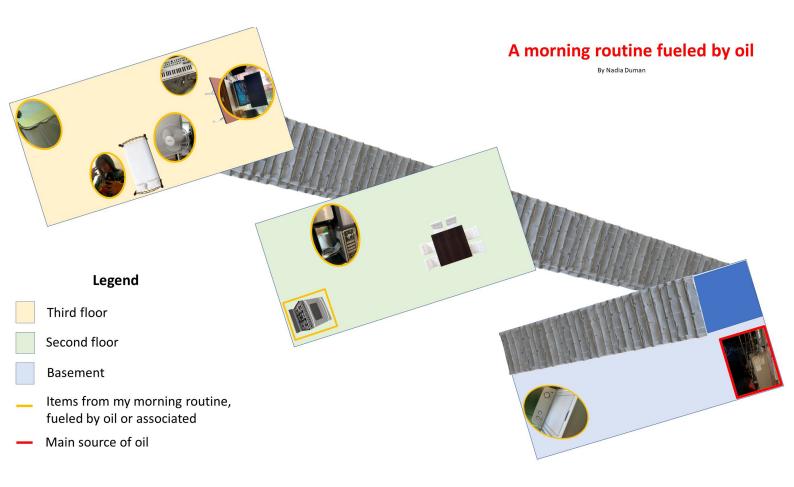
NADIA DUMAN

A Morning Routine Fueled by Oil

To create this map, I took note of the things I did in that morning (July 30) and reflected on how their functioning might be associated with oil. For example, I used a fan and some electronics (synth and computer) which are made of plastic materials and powered by batteries (from what I understand "oil" factors in their production). I also took a shower, and the water was warmed up by the oil tank in the basement of my house. After, I made some coffee using a really plasticy device and went to the basement to finish up some laundry.

Workflow: With this exercise, I wanted to challenge my current literacy on maps and workflow for map-making. To do this, I came back to one of the statements that my undergraduate cartography instructor (Dr. Rodolphe Devillers) communicated to the cohort of Cartography students during the introductory class. Something along the lines "Many things that you might not describe as a "map" are in fact "maps" -theoretically speaking-.... a map is a visual representation of a location".

With this in mind and the intention of making a map that doesn't look like something I recently crafted for academic audiences, I chose to "limit" myself. I didn't use specialized software such as ArcGIS, instead I opted for power point to see how I would create a "visual representation of a location" outside of the cartographic-software environment I was trained in. I also limited the cartographic elements included in my map (no "fanciness"), as well as the extent of "space" I wanted to convey (very fine, just my three-story rental townhouse). One thing I wanted to reframe was the representation of point-features. Instead of using a conventional "point" to indicate the location of an object, I used pictures cropped in a circle-like way.

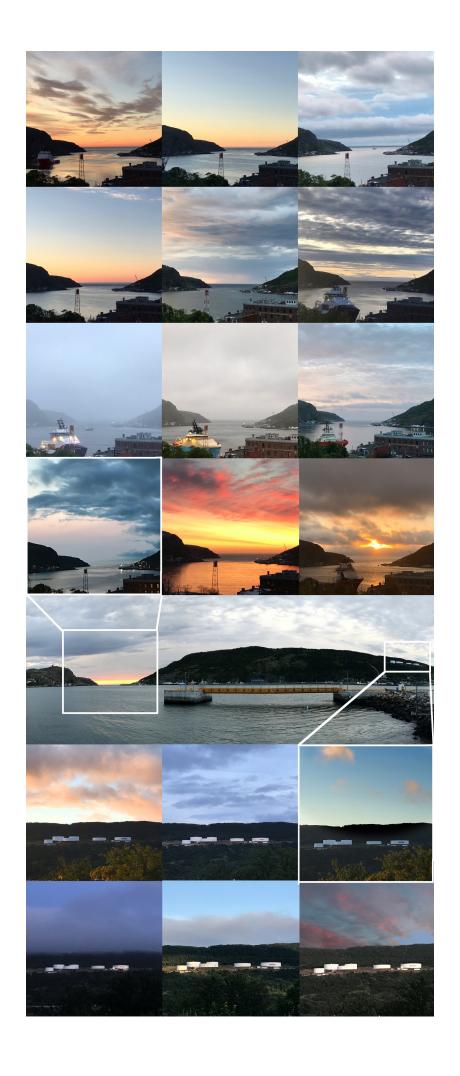


MAX LIBOIRON

Time map of views of St. John's tourism and oil infrastructure. 2020-2021.

The view of The Narrows in the St. John's harbour is familiar to tourists and locals alike. I began photographing it every morning in April 2020, since it is just a block from my home in St. John's. Locals know that if you pan slightly to the right, the famous view takes in the Irving oil infrastructure, including the oil holding tanks.

I began photographing these every morning as well to capture the full sense of St. John's harbour as a place, heavily influenced by our twin industries of oil and tourism (and little else). This map is of two places, over time. If the map went on for long enough, we could start to see oil infrastructure in the first view too, as the effects of climate change were recorded in weather patterns. Mapmaker: Max Liboiron, Michif artist and professor living in St. John's, Newfoundland and Labrador, the homelands of the Beothuk.

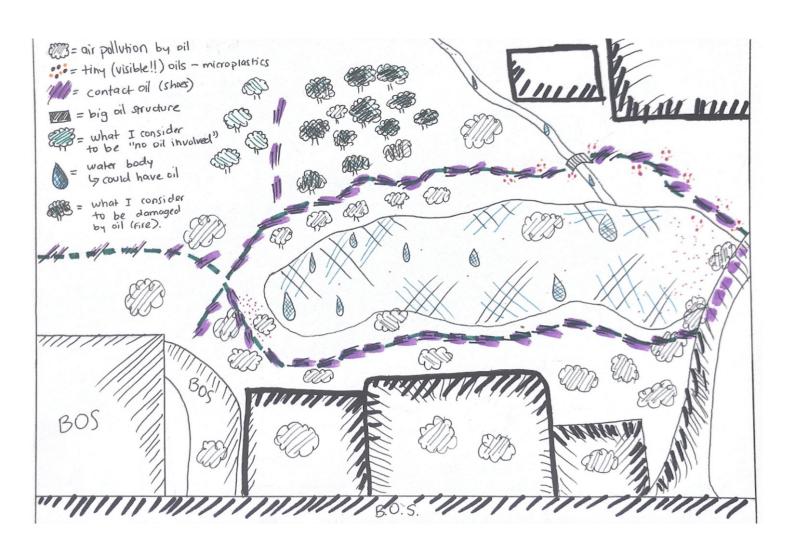


DOMENICA LOMBEIDA

Long Pond Trail, St. John's, Newfoundland and Labrador, 2021.

This map was drawn by me, Domenica Lombeida, a 22 year old immigrant residing in St. John's, Newfoundland. This map is my interpretation of the Long Pond Trail in St. John's, Newfoundland, a trail I walk/run/think in often. This map represents how I see my relation to oil within the trail. The key includes: grey clouds for air pollution, small colorful dots as tiny (visible) microplastics, purple streaks for contact oil, black squares for "big oil structure", green bushes for what I consider to be "no oil involved", water drop for water body that could have oil, and a green/black bush for what I consider to be damaged by oil (fire).

The purple streak from the key is described as contact oil because it is the oil that I bring and travel with in the trail from my shoes. I figured it was easier to call buildings that surround the trail as "big oil structures" and paint them completely black to make the focus on the structures that "accidentally" have oil in them. Buildings would have oil involved in them on purpose in every inch of it. I tried to include things affected by oil, like the area that burnt from an anthropological-caused fire two years ago, and now is a regrowing forest. The "Tiny (visible!!) oils" include where I view the most macroplastics on my runs (which is impressive because I am a fast runner and I can always spot them on the ground!).



RUI LIU

To clarify, in addition to the map key, this map is made in a specific place at a specific time and becomes largely irrelevant beyond and without consideration of its specific context.





REFERENCES

Aikau, Hokulani K. and Vernadette Vicuña Gonzalez, eds. *Detours: A Decolonial Guide to Hawai'i*. Durham and London: Duke University Press, 2019.

Anesi, Juliann, Maylei Blackwell, Mishuana Goeman, Wendy Teeter, et al. *Mapping Indigenous LA*. Accessed June 27, 2021. https://mila.ss.ucla.edu/.

"Anti-colonial science." CLEAR Website. Accessed July 7, 2021.

Borcila, Rozalinda. "Day-Tripping the Petrocapital." Rozalinda Borcila Website. Accessed June 27, 2021. https://borcila.com/projects/day-tripping-the-petrocapital/.

Concordia University Libraries. Decolonial Maps and Atlases Website. Accessed June 27, 2021. https://www.concordia.ca/library/guides/indigenous-fac-res/decolonial-maps---atlases.html.

The Decolonial Atlas. Accessed June 27, 2021. https://decolonialatlas.wordpress.com/.

Dominguez, Ricardo and the Electronic Disturbance Theater. Transborder Immigrant Tool Website. Accessed June 27, 2021. https://tbt.tome.press/.

EJAtlas - Global Atlas of Environmental Justice. Accessed June 27, 2021. https://ejatlas.org/.

ENRICH Project. Accessed July 7, 2021. https://www.enrichproject.org/map/.

Forensic Architecture. Accessed July 7, 2021. https://forensic-architecture.org/.

Goeman, Mishuana. *Mark My Words: Native Women Mapping Our Nations*. Minneapolis: University of Minnesota Press, 2013.



Hall, Pam, Jerry Evans, and community collaborators. Towards an Encyclopedia of Local Knowledge. Accessed July 7, 2021. https://encyclopediaoflocalknowledge.com/.

Haus der Kulturen der Welt, Max Planck Institute for the History of Science, et al. Mississippi: An Anthropocene River Website. Accessed June 27, 2021. https://www.anthropocenecurriculum.org/project/mississippi.

Jekanowski, Rachel, Fiona Polack, Danine Farquharson, and Dean Bavington. Energy Amphitheater: St. John's Harbour. Accessed June 27, 2021. https://bit.ly/3hdOKOr.

Liboiron, Max. "Exchanging." In *Transmissions: Critical Tactics for Making and Communicating Research*, edited by Kat Jungnickel. Cambridge: MIT Press, 2020. 89–108.

Lippard, Lucy. The Lure of the Local: Senses of Place in a Multi-centered Society. New York: The New Press, 1998.

LeMenager, Stephanie. Living Oil: Petroleum Culture in the American Century. Oxford: Oxford University Press, 2014.

Los Angeles Urban Rangers. Los Angeles Urban Rangers Website. Accessed June 27, 2021. http://laurbanrangers.org/site/.

Loveless, Natalie. *How to Make Art at the End of the World: A Manifesto for Research-Creation*. Durham: Duke University Press, 2019.

Misrach, Richard and Kate Orff. *Petrochemical America*. New York: Aperture, 2014.



Native Land Digital. Native-Land Map. Accessed June 27, 2021. https://native-land.ca/.

Petrocultures Research Group. *After Oil.* Alberta: Petrocultures Research Group, 2016.

Queering the Map. Accessed July 7, 2021. https://www.queeringthemap.com/.

Solnit, Rebecca. *Infinite City: A San Francisco Atlas*. Berkeley: University of California Press, 2010.

Tuck, Eve and K. Wayne Yang. "Decolonization is not a metaphor." *Decolonization: Indigeneity, Education & Society* 1.1 (2012): 1-40.

Wenzel, Jennifer. "How to Read for Oil." *Resilience: A Journal of the Environmental Humanities* 1.3 (Fall 2014): 156–161.

Wilson, Sheena and Just Powers. Feminist Energy Futures. Accessed June 27, 2021.https://www.justpowers.ca/projects/feminist-energy-futures/.

Wilson, Sheena and Just Powers. Speculative Energy Futures. Accessed June 27, 2021. https://www.justpowers.ca/projects/speculative-energy-futures/.

ACKNOWLEDG-MENTS

This workbook is an experiment and a work in progress. This workbook could not have been created without the energy, ideas, and generosity of the members of the CLEAR Lab, especially Max Liboiron. This workbook is inspired by Max Liboiron's article "Exchanging" in Transmissions: Critical Tactics for Making and Communicating Research (2020) and Sarah Kanouse's Beyond Property (2019) as well as the scholarship of Mishuana Goeman (Tonawanda Band of Seneca) and Jennifer Wenzel.

