Urgency, Action, and Grounded Aesthetics in Warren Cariou's Tar Sands Texts

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Since the turn of the twenty-first century, extraction in the Alberta tar sands has expanded at an alarming rate in spite of frequent lapses into unprofitability and countless predictions of the industry's demise. Unlike the easier, cheaper, and more "conventional" drilling of crude oil, the "tough" or "unconventional" process of bitumen extraction is so expensive that tar sands multinationals run at a loss whenever global oil prices fall. Yet, too big to fail, this zombie industry has been repeatedly kept alive by the Canadian state and tenacious shareholders, not to mention conservative efforts to rebrand the sands as "more ethical" than other sources of oil.¹ The projected growth of the tar sands over the next twenty to thirty years contradicts Canada's professed climate goals, as the economies of the Western provinces are deeply dependent on bitumen. Each revival of the tar sands amounts to a classic case of "dithering"—to use novelist Kim Stanley Robinson's term for climate inaction in our historical moment—in which the profound reach of fossil capital punctures political resolve, over and over again (2312).

In response to Canada's tar-motivated withdrawal from the Kyoto Protocol in 2012, Warren Cariou's "Tarhands: A Messy Manifesto" (2012) is an urgent attempt "to make visible the physical reality of the Athabasca oil sands mining developments in Canada, a reality that has been occluded by corporate and governmental disinformation as well as by citizens' unwillingness to face the consequences of their actions and their inaction" (17). In its formal heterogeneity, "Tarhands" is a microcosm of Cariou's work as a whole. Since his 2009 documentary film *Land of Oil and Water*, he

has dedicated much of his academic and artistic attention to the tar sands, exploring a range of forms and genres to better convey the stench, the sight, and the feel of bitumen extraction. Like many other tar sands texts, "Tarhands" is interested in a logic of visibility and, at least at first glance, the accompanying hope that visibility might lead to citizen revolt and a shift in the status quo. Visibility, afforded by various artistic modes, might buttress science to appeal to our environmental sensibilities and generate a counter-force to a seemingly immortal industry. Somehow, even, the tenor of urgency held in tar sands media might trickle down to policy makers, causing them to become suddenly alive to the enormous, "external" costs of the operations: irreparable damage to the local ecosystem and global climate change.

This is a visibility optimism shared by arguably the most prominent tar sands' artist, Canadian photographer Edward Burtynsky, whose 2009 TED Talk evinces a desire to reach a critical public and raise awareness. He uses photography to share this "unseen" oil world and to "deal with what I think is probably one of the most challenging issues of our time, how to deal with our energy crisis" ("Photographing" 00:00:09; 00:02:45). Followed by images of pipelines, refineries, highways, gas stations, parking lots, trucker's jamborees, derelict automobile plants, tire piles, and scrapyards, the tar sands are one of the originary horrors at the start of Burtynsky's *Oil* series on the lifecycle of petroleum. The emphasis is on the shock-power of revelation: on making something invisible visible, on bringing something hidden to light.

The question of "visibility," and its relationship to political action, is a concern of much petrocultures scholarship. Although Marxist aestheticians have addressed the problem of representation under late capitalism, theorists of petrocultures suggest that there is something especially problematic about petroleum.² For Amitav Ghosh, in his provocative contemplation on "petrofiction" in 1992, the multi-lingual and multi-sited character of the "Oil Encounter" between the United States and the Middle East make

it an especially difficult object for "much of modern culture" (30-31). The form of the novel in particular is resistant to oil's "slipperiness" (30). According to Ghosh, this is why, "when there is so much to write about," this encounter has "proved so imaginatively sterile" (30). In response to Ghosh, a number of scholars argue that global oil encounters are in fact everywhere in culture, but not necessarily as legible objects. Oil's pervasiveness in culture, and its material pervasiveness as fuel for everyday life in the twentieth and twenty-first centuries, requires different excavational reading practices.³ Even when the petroleum industry is, clearly, at the thematic center of the text, the assumption is that it has been revealed to a public for whom oil infrastructures, although everywhere, are generally obscure, or obscured—"receding into spaces made deliberately invisible by private and state interest," as Jeff Diamanti and Imre Szeman put it ("Nine Principles" 140). Whether explicitly "about" petroleum or not, petrocultural objects operate within a field of invisibility. Oil hides in plain sight.⁴ Meanwhile, Ghosh's initial observations about petroleum's slipperiness to fiction, and culture broadly, are still relevant to tar sands texts however intentional they are about bringing oil to visibility: how to communicate the sheer scale of extraction, the global reach of the bitumen economy, the tangle of pipeline networks, the bodily effects of toxic exposure, and the largely peripatetic workforce?

For many photographers and filmmakers, the answer is to meet scale with scale. As the narrator of the tar sands documentary *Petropolis: Aerial Perspectives on the Alberta Tar Sands* (2009) tells us, the birds-eye view presents a "new perspective of a landscape we cannot comprehend from the ground" (00:36:20). Attempting to capture the horrifying magnitude of the extraction processes, aerial photography and film have emerged as dominant tar sands forms. To most spectators, in fact, the tar sands are *only* seeable as such. A cursory Google image search of the "Alberta tar sands" or the "Alberta oil sands" reveals page after page of Burtynsky-esque aerial shots—

breathtaking, fascinating, and dreadful. Aerial photographer Louis Helbig aptly named his collection on the tar sands *Beautiful Destruction* (2014) to capture the apparently antagonistic affects evoked by these kinds of images. There is something synecdochic at work here, as the extravagance of the tar sands gesture to objects even larger and more abstract: petroleum dependency, climate change, and the "human epoch" of the Anthropocene.⁵

In this article, however, I investigate Warren Cariou's more grounded aesthetic across written and visual media—a "from below" mediation of the tar sands, literally positioned and produced in proximity to the material of bitumen. The question of visibility, for Cariou, is really a question of how to make tar fully sensible to an imagined audience presumably located far away from the site of extraction. I am interested both in Cariou's experiments towards visibility, or sensibility, and in his ambivalence about the capacities of art to effect action along a "revelation" logic. More and better representation is all very well, but how this might lead to material change is a persistent problem or frustrated hope across his projects. The diversity of his work—comprised of short stories, documentary films, manifestos, academic scholarship, photographs, and "petrographs"—would itself seem to suggest a preoccupation with representational possibilities and limits, a restless searching for the form most suited to the task of communicating environmental destruction.

Cariou's work is also "from below" in the more typical social sense, in that his task of representation is not just about making sensible the impacts of industry but also Indigenous presence against the settler social relations that underpin extraction in the region currently known as Alberta, on the ancestral lands of the Cree, Dene, and Métis peoples.⁶ Akin to oil, settler colonialism might be thought of as another phenomenon hiding in plain sight—everywhere and nowhere at once, letting die and making live, highly visible to its variously dispossessed and racialized while generally invisible to its

beneficiaries.⁷ Yet settler colonialism cannot be included unproblematically as just another phenomenon to represent alongside fossil fuel capitalism, since this does not get at their inseparability. Moreover, the long timeline of settler colonialism in Alberta puts pressure on the register of urgency that dominates representations of, and responsive action to, the tar sands and climate change more broadly. In grappling with the dual and co-constitutive conditions of petromodernity and settlement, I argue that Cariou's proximate, grounded aesthetic carries an alternate politics of action that refocuses from representation of bitumen to relationships with bitumen. By intervening directly in the use and meaning of bitumen, Cariou's practices offer us an alternative to the terms of urgency, visibility, and action that so often frame climate art.

A Messy Manifesto

Tough or unconventional extraction is a key feature of late fossil capitalism. Despite prognoses pointing to "Peak Oil" in about 2005, petroleum production has continued apace. This can be ascribed to the development of unconventional processes to compensate for the increasing scarcity of accessible crude. Such unconventional processes include hydraulic fracturing, deep-sea mining, and tar sands extraction. In an effort to conceal the Alberta tar sands' unconventionality, the Canadian Association of Petroleum Producers insists that the tar sands should be referred to as the "oil sands." The term tar sands is "incorrect," the website chastises, "because bitumen and tar (asphalt) are different compounds" ("What are the Oil Sands?"). The industry is not insensible to the rhetorical advantages of referring to the sands as tar sands if you want to convey something of their nastiness, and the advantages of referring to the sands as oil sands if you want to convey something of their conventionality.

Even relative to the nasty world of oil, the tar sands are *unusually* and *unconventionally* nasty. The extraction process is highly mechanized and emits three to

four times more greenhouse gases than conventional oil extraction. Tar sands deposits are typically a mixture of bitumen, sand, clay, and water, and a huge amount of water is required to "liberate" the bitumen, approximately three barrels of fresh water to every one barrel of oil output. Meanwhile, bitumen oil is more viscous and acidic than crude oil, making it more likely to leak from a pipeline and considerably harder to clean up.8 The Alberta deposits consist of three major reservoirs—Athabasca, Peace River, and Cold Lake—together underlying about 55,000 square miles of boreal forest, part of a unique sub-Arctic biome. In Alberta, approximately twenty percent of mining is openpit and eighty percent is in-situ. Deposits lying greater than seventy meters from the earth's surface require the in-situ method, involving the injection of hot steam down a well-pipe to loosen the bitumen. Deposits lying less than seventy meters from the surface can be mined directly using the open-pit method. Canadian activist Naomi Klein dubs the process "terrestrial skinning," where the "overburden" of trees, topsoil, muskeg, and animal habitats are stripped away to access the tar (qtd. in Wenzel "Overburden"). On top of this, both in-situ and open-pit methods suck up vast quantities of water from the Athabasca River at one end of the cycle, and unleash spews of toxic liquid into tailings ponds at the other end.

Cariou became interested in the tar sands when the oil companies started drilling not far from his hometown of Meadow Lake, Saskatchewan. As he explains in the opening scenes of his documentary *Land of Oil and Water* (2009), he had never thought of his home as being connected to the tar sands activity in the neighboring province of Alberta (00:01:35). This changed when the companies realized that the bitumen deposits "extended well into Saskatchewan" (00:02:20). To get a sense of what might soon befall his community, Cariou, who is Métis, travels to the majority Indigenous hamlets of Fort McKay and Fort Chipewyan, respectively 38 miles and 170 miles from the boomtown of Fort McMurray where open-pit mining operations hug the

Athabasca's edge and rely on its water supply. All open-pit mining in Alberta occurs just north of Fort McMurray: Fort McKay is right in the center of the tar sands industrial area, while Fort Chipewyan sits downstream. There, Cariou talks to Cree, Dene, and Métis people daily having to weigh up the huge environmental costs of extraction against tar sands jobs they have little economic security to refuse. As one resident of Fort McKay puts it, "pretty much they stripped our land and fed everybody money to keep their mouth shut" (00:20:36).

Cariou's creative essay "Tarhands: A Messy Manifesto" plays with the etymology of its form, manus festus—hand struck. One of its epigraphs reads as half of an imagined dialogue: "Have you noticed anything about your hands? I mean, I didn't want to say anything at first, but I couldn't help seeing it, and... what are friends for, right? If you had guacamole in your teeth, I'd say something. If your fly was down... not that it is! Nothing like that. But still, I just thought I should ask: have you noticed?" (17). Like the epigraph, the whole manifesto is written in this second person address to an imagined "Canadian" who needs to be shocked into seeing the tar dirt on their hands. The speaker, an emissary from the Tarhands Institute "stink-tank," is exasperated: "something is already rotten in the petro-state, and NOBODY SEEMS TO NOTICE" (21). Since appeals to reason have failed, the manifesto targets shame as an emotion that might prompt its reader to action, comparing the complicity in, and complacency about, petro-capitalism to other scenes of everyday shame, like getting guacamole stuck in your teeth or forgetting to do up your fly, or going in to shake someone's hand and noticing "too late, that yours was dirty" (25). Then, beyond shame, the manifesto moves to abjection as a mobilizing force: the "milk you drank at lunch" is contaminated with particles of tar from your hands (27). If the separation from waste is a signal fantasy of modernity, as Cariou posits in "Wastewest" (2011), then the reminder that

petrochemicals mix with milk and circulate in our bloodstream appears suddenly in the manifesto as body horror.¹⁰

The response of an imagined reader to these reminders is presumably not that of a Futurist. Above the guacamole epigraph is an epigraph from Filippo Tommaso Marinetti's 1909 "Manifesto of Futurism": "Look at us! We are not out of breath, our hearts are not in the least tired. For they are nourished by fire, hatred and speed!" (qtd. in "Tarhands" 17). In its glorification of industry and violence, the Futurist Manifesto is a highly sensory text, reveling in the roar of automobiles, the taste of ditch water, and a series of misogynistic and misogynoiristic images as Marinetti and his cohort hunt the streets "like young lions" guided by smell more than sight (Marinetti 12). If the Futurist Manifesto represents the dark embrace of petroleum, slipping seamlessly from a love of speed to a love of war and death, then Cariou's Messy Manifesto sets out the stakes for its reader: either you respond with revulsion or adoration to this technology and its waste products. Adoration, as Walter Benjamin theorized of the Futurists, would equate to consumption of fascist aesthetics, a degree of self-alienation such that mankind "can experience its own destruction as an aesthetic pleasure of the first order" (Benjamin 195). To his imagined Canadian addressee—a liberal southerner coded not so subtly by that guacamole—Cariou suggests that a moderate, measured, equivocal response to the tar sands is a kind of appearement to the fascist glorification of war.

Framing his Messy Manifesto against the terms of the Futurist Manifesto, Cariou links petrocapitalism to war. Not just war in the sense that petroleum in the twentieth and twenty-first century has fueled global militarism, nor just in the machinic aesthetic sense of the Futurists, but also war in the sense that the tar sands region is a warzone. This is a word used by one of Cariou's Fort Chipewyan interviewees in Land of Oil and Water, and the language of war is a recurrent feature of Cariou's tar sands works

(00:35:27). Indeed, of the sixteen photographs in the manifesto, only six appear to have been taken from the ground. The others mainly consist of aerial shots of the tailing ponds. Underneath one of the ground shots (of a Syncrude security fence), we learn that the conditions on the ground jeopardize their own documentation:

What I remember most about the tar sands is the stink. We stood there with our cameras, trying to capture a record of that obliterated landscape, but I could hardly even see. The fumes were like hammers: sulfur and benzene and diesel and something else—a dead smell, a charnel residue on the back of my tongue. I had a migraine in half a dozen breaths. I breathed into my shirtsleeve, trying not to retch. How could people work in this, day after day? How could the Cree, Metis and Dene people of Fort Mackay live in it? (20)

This is warzone reporting from the heart of petromodernity, reminiscent of Kristen Simmons's account of the 2016 #NoDAPL struggle at Standing Rock, "a warscape of heavy military equipment and smoke" ("Settler Atmospherics"). While Simmons's article describes violent attacks on protestors by police and security forces, Cariou's manifesto zeroes in on slower forms of bodily harm; yet both are different incarnations of what Simmons calls "settler atmospherics," the "normative and necessary violences found in settlement—accruing, adapting, and constricting indigenous and black life" ("Settler Atmospherics"). If these are warzones, then they are "structural, not eventful," as Audra Simpson puts it (*Mohawk Interruptus* 154). The structure of settler colonialism doesn't throw up occasional, exceptional wars, but it is itself total warfare. The land is in "a state of continued expropriation" and its peoples are "in their own constant state of historical emergency" (154).

Cariou's ground shots and accompanying text draw attention to the conditions of artistic production and the embodied presence of the photographer. If resources, as

Stephanie LeMenager suggests, can be understood to possess aesthetics—or if aesthetics are our experience of the world, "a relationship with matter as such"—then Cariou wants to interrupt the smoothness, the pleasure, the facility, and invisibility of petroleum culture, where energy can be delivered into the home, as if by magic, thousands of miles from the site of extraction (LeMenager "When Energy"). He does this in part by reminding us that the manifesto and its photographs were produced in toxic conditions. Further, like all good manifestos, the Messy Manifesto offers its readers a program to follow: "Join us. Together we can make visions that shudder a billion eyes, make a stink to awaken the nostrils of the world!" (32). This is its method of conversion: to jolt others into acknowledging, and then acting on, their entanglement in both petroleum production and a state of permanent settler war. What the action is remains obscure, but the process of political education is, first, a form of petro-sensory overload set to undermine both the bourgeois forgetting of, and the fascistic pleasure in, violence.

Not long after publishing the Messy Manifesto, Cariou began experimenting with a photographic process he calls "petrography." As Cariou explains, petrographs are "contact prints made with a mixture of bitumen and lavender oil applied to a polished metal plate. After about 13h of direct sun exposure, a kerosene developer is poured over the plate and the finished petrograph emerges: a highly reflective surface in a distinctive golden hue, imprinted with an elusive monochrome image" ("Portfolio" 253). If Messy Manifesto is a project in defetishizing the commodity of petroleum by revealing the degree of our bodily entanglement in sites of extractive violence, then petrography intensifies this appeal to the body of an imagined viewer. By "using the bitumen to show what bitumen mining has done to the earth," Cariou illuminates the inescapable character of petroleum in the twenty-first century (253).

This ouroboros of representation, the conflation of the medium and its object, is not a novel innovation but, rather, an homage to the very first photograph. Cariou was inspired to experiment with petrographs when he realized that Nicephore Niepce had used something called "bitumen of Judea" to create "View from the Window at Le Gras" in 1826. Like "View from the Window," Cariou's petrographs are impossible to misconstrue as transparent windows onto the reality of the tar sands, but nonetheless "give us new perspectives on the pervasiveness and the symbolic potency of petroleum in contemporary culture" ("Petrography"). Even as petrographs capture tar sands landscapes and infrastructure, the bitumen itself—the viewing medium—is what is most emphatically revealed to the viewer. Whether it's the angle of sunlight on the plate or the corpse of a fly that got stuck in the bitumen as the petrograph was developing, the bituminous medium insistently asserts its presence (see Figures 1 and 2). Meanwhile, the reflective metal plate "means that viewers see not only the image itself, but also darkened, petroleum-coated reflections of their own surroundings, and even their own faces" ("Petrography"). In Cariou's petrographs, the tar sands do not exist "over there," but also, with each viewing event, the tar sands exist wherever the viewer is situated.



Figure 1. Cariou, Warren. "Syncrude Plant and Tailings Pond Reflection." 8 x10 inches Petrograph on Aluminum. V.1, 2014. Images © Warren Cariou - only to be reproduced with the artist's permission.



Figure 2. Cariou, Warren. "Strip Mine Horizon to Horizon (detail)." 4 x 6 inches Petrograph on Stainless Steel. V.1, 2014. Images © Warren Cariou - only to be reproduced with the artist's permission.

An Elder Brother Story

Even though commercial bitumen extraction in Alberta did not begin until 1967, the presence of bitumen has long informed colonial relationships in the region. Following independence from the British in 1867, Canada purchased "Rupert's Land," encompassing the Athabasca region, from the Hudson's Bay Company in 1870. This led to a comprehensive assessment of the newly incorporated territory and its resources by the Geological Survey of Canada (GSC). Naturalist John Macoun led the first GSC expeditions over the course of the 1870s, referring to the tar sands as "the ooze" with possible commercial value (qtd. in Pinkus 45). Macoun's GSC successors, geologists Robert Bell and Robert McConnell, confirmed this impression in reports that

greatly influenced, as Hereward Longley puts it, "southern imaginings of the Northwest, and made the expense and obligation of a treaty with the region's Indigenous peoples look minimal" (Longley 18). Bell's report told a thrilling story of a material occurring in "enormous quantities" with "practically no limit to the quantity which may be obtained for the digging" (Bell 34). This enticing prospect of petroleum, combined with the rush of settlers migrating north for Klondike gold in the mid-1890s, led the federal government to begin negotiations for Treaty 8. The treaty was signed in 1899, in quick pen-work "extinguishing" the "rights, titles and privileges" of its Indigenous signatories from the Dane-zaa, the Cree, and the Chipewyan (Denesuline) nations, among others ("Articles").¹¹

Treaty 8 cleared the way for more settlement in the region, and the first half of the twentieth century was a period of enthusiastic knowledge production about the tar sands. In 1913, the Department of Mines delegated mining engineer Sidney Ells to map, document, and conduct experiments in the region, which he did for the next thirty-two years. By his own account, he was "enthralled" by the sands (*Recollections* 2). In 1962, as commercial production began to look like a possibility, Ells proselytized with a vision of the resource he had dedicated much of his life to: "Where now the almost unbroken wilderness holds sway, industrial plants may arise and tall stacks dominate the landscape. Few will then pause to consider what these developments represent, but success will be the reward of those who had a part in the undertaking" (100). Indigenous nations are conspicuously absent from such surveys, their lands and livelihoods swept away by the rhetorical force of "wilderness." In 1967, the Great Canadian Oil Sands plant opened in Fort McMurray.

Now, in the twenty-first century—the decades that have so far witnessed the most aggressive expansions of the tar sands industry—conditions on the ground include: elevated levels of rare cancers, headache-inducing air quality, contaminated

food sources, caribou population decline, tailings-polluted ground water, dangerously low river water, and acid rain. ¹² In "Wastewest," Cariou says that the struggle for Indigenous communities in the tar sands is a "struggle to ensure that they don't become waste, that they don't become wasted lives" (00:35:30). And yet if the tar sands are a site of intensified violence in the total warzone that is settler colonialism, then the Cree, Dene, and Métis peoples who live there are neither helpless victims nor heroic resistance fighters. As Cariou documents in *Land of Oil and Water*, the situation is far from uncomplicated, and communities are often divided as to whether they should participate in or resist the tar sands boom. Jobs in the industry constitute one way to survive the hostile living conditions created by the industry itself and colonialism more broadly, which restricts Indigenous access to traditional territories and foodways. "While conducting the interviews for my film," Cariou writes, "I routinely encountered a sentiment among Indigenous people of the region that there was nothing they could do to stop oil development in their territories, and so the most they could hope for was to make the best of a very difficult situation" ("Oil Drums" 586).

In official public relations communications, the Canadian Association of Petroleum Producers cares for Indigenous peoples, working with Indigenous groups "to seek ways to mitigate impacts and to share the benefits of resource development" ("Indigenous Relations"). This is a dynamic that Cariou names "neoliberal reconciliation," which describes the way that corporations sell industrial "development," job creation, and corporate-funded essential services as the most effective means of colonial redress ("Oil Drums" 583). In reality, Indigenous peoples provide a valuable source of precarious labor. Their involvement as laborers also carries symbolic surplus value, as the stereotype of the Native-as-environmentalist lends "an appearance of responsible environmental practices," effectively "redwashing" extraction (589). Moreover, images of Indigenous peoples laboring in the tar sands

implies community consent, giving the "impression that they accept and even condone these developments" (589). In other words, the use of Indigenous peoples as symbolic capital is central to the PR production of a social license to operate.

Cariou's Elder Brother story, "An Athabasca Story" (2012), could be read as an allegory of this complex of settler colonial relations of production in Alberta, a context that confounds homogeneous reports of Indigenous resistance as much as it confounds the industry's account of a consenting, enriched community and labor force. In his study of the function of Elder Brother stories in Cowessess First Nation, Robert Innes explains that the values that guided practices historically for the Cree, Ojibwe, and Métis are "embedded in the stories of Elder Brother" (8). Elder Brother stories involve the character of Elder Brother, a trickster or cultural hero known as Wîsahêcâchk and Nanabush to the Cree and Ojibwe respectively, who regularly finds himself in some (often amusing) difficulty. How he navigates this difficulty, and whether his actions result in positive or negative outcomes, models behavior for the listening or reading audience. This is "relational guidance" not just for human interaction, but also informing "how humans should relate to nonhumans, be they animals, land, or spirits" (30). If the manifesto and the petrography both operate within a logic of political action prompted by an embodied recognition of the realities of petroleum extraction, then "Athabasca Story," as an Elder Brother story, complicates what is meant by action.

"Athabasca Story" begins with Elder Brother walking westward over an unfamiliar land, looking for warmth, food, and any relations who might provide for him. He is so hungry that his stomach is "like the shrunken dried crop of a partridge" that rattles inside him as he walks (70). Eventually he smells something, a noxious smoke that he hopes might mean warmth. Following the scent, "worse than his most sulfurous farts," he finds its source in a big house surrounded by land totally empty of "trees, of muskeg, of birds and animals" (70). He also sees "enormous yellow contraptions that

clawed and bored and bit the dark earth and then hauled it away toward the big house" (70). Although he has a bad feeling about all of this, he doesn't want to spend the night cold and hungry by himself. So he walks into the empty land and solicits conversation with a man working one of the earth movers. Misidentifying Elder Brother as someone from Greenpeace, or just someone looking to be a nuisance, the worker threatens to call Security on him. Before moving aside, Elder Brother just wants to know one thing: "what are you doing with all that earth?" (72). The man answers:

It's very special dirt, this stuff. We dig it up and take it over to the big house, as you call it, and we mix it around in there and after a while it's ready to burn. Fuel to heat your house, if you have one which I doubt. Gas to power your car. Diesel to move this big rig here. All of it comes right out of the ground. You can tell by the smell of the air around here. Just like napalm in the morning! (72)

The reference to napalm, and the Vietnam war film classic *Apocalypse Now* (1979), situates Elder Brother in a warzone. As a highly flammable and dangerously sticky substance made of gelling agents and petrochemicals, napalm is not a metaphor so much as a material relation of bitumen. Like Marinetti and the Futurists, the worker relishes the smell of death. But, once again—as in the Messy Manifesto—the war encoded here is the permanent war of settler dispossession. The worker tells Elder Brother that the land doesn't belong to him, and his presence on the land is interrupting the project of resource extraction and wealth accumulation.

Motivated by damaged pride, resentment, and cold, Elder Brother decides to dig for some of this "special dirt" himself. Throughout, "Athabasca Story" assumes an audience more in the know than Elder Brother, and this dramatic irony is a chief source of the story's wry humor. The moment Elder Brother starts digging into the tar, we know where this is going. "I imagine you can guess how that worked out," the narrator

laughs with us at Elder Brother's expense: "Elder Brother was stuck fast in that Athabasca tar" (74). After two days of being stuck in the tar, Elder Brother gets extracted by one of the earth movers and dumped in a pile of the special dirt, the tar pressing "into his nostrils, his ears, his mouth, even into his clenched bum" (75). The earth mover then carries him to the refinery, where "he was made very warm indeed" (75).

So it ends very badly for Elder Brother. By negative example, there are some possible lessons to glean from his behavior. First, even though the worker complacently informs him that burning the dirt is warming the planet so that "the winter never comes back," Elder Brother, thinking only of his coldness, interprets this as a good thing (72). Second, he tries to take more of the special dirt than he needs for immediate warmth. He dives in as deep as he can go to gather enough of the dirt to last him for decades, and this is how he becomes stuck. Third, he doesn't listen to the voice of the dirt when it cries out, "Elder Brother, you're hurting me!" (73). His failure to respond to the dirt means that the dirt doesn't respond to him when he calls out, "Help me! I'm sorry I didn't listen to you. I'll leave now without taking anything at all" (74). Like many Elder Brother stories, Elder Brother is cosmically punished because he gets too greedy or fails to act in reciprocity.¹⁴

At the same time, it is not clear that Elder Brother had many other options available to him, and the story is as much about his struggle as it is about his foolishness. Cariou portrays him as someone negotiating extremely difficult circumstances in a land of few relations, a land conditioned by "failed settler kinship," as Kim TallBear names it ("Failed Settler Kinship"). He knows from the beginning that he should have turned away, but "that would mean spending the night by himself, freezing and chattering and rattling, and he couldn't bring himself to do it" (71). He tries to hail the worker as a "dear relation" and thus enter into reciprocity with him, but

the worker "talked as if he had no relations at all" (72). Under these blighted conditions, what would resistance have looked like? If the example of Elder Brother is supposed to serve as a deterrent, what is the recommended course of action instead? Sean Teuton states that the "oral traditional trickster reminds us through his hasty and unself-aware behavior that we should reflect before diving in for our desires, for what we truly need might be right in front of us" (qtd. in Innes 29). Although Elder Brother is hasty and lacks foresight, it is not clear that what he truly needs is right in front of him. He needs warmth, and the special dirt appears to be the only available source.

The story stages the profound way that the tar sands industry, and the long history of settler colonialism in the region, work to restrict Indigenous economies, foodways, and kinship relations—a mechanism that fuels Indigenous participation by force of necessity. This situation problematizes any anti-extractive "action" that does not consider settler colonialism, or does so only as a matter of fleeting inclusion. As Andrew Curley and Majerle Lister argue, "extractive industries have helped assuage some of the longstanding impacts of genocide, violent displacement, and forced assimilation," but "[c]limate change is a politics largely ignorant of Indigenous peoples' complicated relationship with extractive industries" and "the depth of colonial entanglements is not well understood or accounted for within political proposals" (260; 258). If the tar sands industry were suddenly to collapse, Indigenous peoples would be among the first to suffer from this boom/bust cycle, replicating the decline of the fur trade and successive resource frontiers.¹⁶ Situating the current ecological terror of the tar sands in the long timeline of settler colonialism changes both how we narrate the contemporary moment and the politics we use to address it. This is not a remedial gesture that would simply include settler colonialism in an account of the tar sands. On the contrary, a reading of "Athabasca Story" shows how settler colonialism is the structuring condition of possibility for the tar sands, creating a fraught terrain of

entanglements such that "action"—if art could be relied upon to prompt political action—must take anti-colonialism or decolonialism as its constitutive framework.

As numerous Indigenous studies scholars have explained, the idea of the Anthropocene—in its governing discursive formation, at least—fails to consider European settler colonialism as a terraforming project responsible for deep-time planetary impacts and climatic change since its beginnings in the sixteenth century, while also effacing the uneven distribution of environmental risk along the divisions of race, class, and gender intrinsic to capitalism.¹⁷ These erasures, as Potawatomi philosopher Kyle Powys Whyte argues, contribute to "epistemologies of crisis" that experience and narrate the present as unprecedented and urgent (53). Epistemologies of crisis are central features of settler colonial power, in which the crisis object—in this case, climate change—is leveraged to conceal or justify injustice, furthering appropriations of Indigenous lands and waters for the "common goods" of conservation, carbon sequestration, renewable energy infrastructure, etcetera. As an alternative to the dangerous urgency of epistemologies of crisis, Whyte emphasizes "epistemologies of coordination" that "organise knowledge through the vector of kinship relationships," responding to change without compromising responsibility to diverse human and nonhuman others (62). Although much of Cariou's tar sands work is pitched to the tenor of urgency, it also holds incipient forms of non-urgent action sensitive to the interrelationships of a local ecosystem and distinct from a model of action based on artistic consciousness-raising. I explore these forms of action in the final section below.

Storying Bitumen

On a surface reading, Cariou is very explicit about the urgent project of making the tar sands visible or sensible to critical publics. This is the motivating premise for both the Messy Manifesto and his petrography. Yet his work also expresses an ambivalence about the capacities of art to effect action. There is a desperation to the tone of the manifesto that conveys a sense of exhausted options. Even as the manifesto recruits "irrational" affects like shame and disgust to reject the toxicity of the tar sands, it also includes instances of normalization: underneath the paragraph about the horrifying stink of the tar sands, Cariou quotes a security guard who says he "used to smell it, too" but "after a week or two you don't notice a thing" (20).

If, however, we pay attention to what Cariou is *doing* with his tar sands work rather than adjudicate the efficacy of his representations, then we arrive at a different angle on the question of action. In his portfolio of petrography, Cariou writes that,

While I started out with a representational goal—using the bitumen to show what bitumen mining has done to the earth—my art practice has gradually become at least as much about my own relationship to the bitumen I use in the process. This project requires a level of intimacy with petroleum that is sometimes fascinating but is also troubling: creating a petrograph is a messy, smelly, and somewhat dangerous business [...] However, as I spent more time with the bitumen I came to understand it not only as a source of potential danger but also as a creative collaborator, helping to reveal new ways of seeing the world. I also think of the bitumen as a kind of medicine, one that can cause damage if used improperly, but one that can also provide valuable gifts if it is approached with the proper respect. This is why I leave an offering of tobacco or sweetgrass wherever I gather the bitumen I use in my petrography, in keeping with Métis cultural teachings about reciprocity, gratitude, and maintaining good relations with the land. (253-4)

This is not the first time that Cariou has used the word "intimacy" with respect to energy materials. In a short keywords essay on "Aboriginal," Cariou describes *energy intimacy* as a kind of energy ethic in which "every community member necessarily has direct and personal relationships with the sources of their energy" (18). This opposes extractive energy logics, "which by its very definition is about taking energy out of its context, turning it into a commodity that can be circulated in a global economy wherein its value is guaranteed by virtue of its sameness, its uniformity" (19). Even though Cariou is not using the bitumen for energy in his petrography, he is nonetheless enacting an intimate relationship to bitumen in its local context and derailing its circulation in a global market. The *pace* of petrography likewise contravenes an extractive energy system based on speed at every level of the production-consumption cycle—from efficiency of extraction and processing, to the necessarily rapid delivery of the fuel to a global market, to the pace of living that petroleum has made possible, most grossly celebrated by the speed credo of the Futurists. Petrography, by contrast, requires a huge amount of work and patience to produce a single print.

Over the course of his experiments with bitumen, Cariou begins to relate to the substance as a kin-relation, just as Elder Brother was unable to do. Taking it from the land requires care and reciprocity, otherwise "nature withholds further gifts from the transgressor and his or her community" (Cariou, "Aboriginal" 19). And using it in this way, as something other than commodified energy, echoes the use of Athabasca bitumen by the Cree and Dene to caulk their canoes (Cariou, "Tarhands" 23). Although the material reality of naturally-occurring bitumen can appear monstrous, Cariou's alternative use of bitumen emphasizes that monstrosity is not intrinsic to the substance but the way that it has been put to use under capitalism. While harvesting the bitumen for petrography, Cariou is "amazed to see that this undisturbed bitumen habitat was teeming with lush plant and bird life [...] and I realized then that the bitumen has

another side: it can support life and can even be a source of life-affirming energy if it is left in its natural state" ("Portfolio" 254). Ironically through bitumen, Cariou is able to see the tar sands region beyond its warzone status. This offers a glimpse of the region after the tar sands, one markedly distinct from the industrial promise of "reclaiming" or "remediating" the land. Tar sands "reclamation" zones are attempts to clean up the waste products of extraction and return the land to its previous state. Reclamation, however, is principally governed by the extraction companies and has been met with Indigenous refusal. As continuations of settler colonial business as usual, the rapid and solutions-oriented process of reclamation is a signal example of a crisis epistemology at work. Compare this to the slow temporality of Cariou's kinship building with bitumen.

In the monograph Fuel: A Speculative Dictionary (2016), Karen Pinkus wonders whether her dictionary "can help scramble our thinking about fuel [...] to open up potential ways of interacting with substances (real and imaginary), by wrenching them out of narrative (violently in some cases), and placing them into the form of an idiosyncratic dictionary so they could eventually be replaced by users into new narratives" (6). I read Cariou as doing similar work via different methods, scrambling the dominant narratives about bitumen (as either magical energy or demonic toxin) and making it available for new narratives. Cariou's art practices seem to model a different kind of "action" to the "revelation" economy of action that depends on an unveiled horror. "Athabasca Story" holds this alternate action ethic too, in the final paragraph addressing its audience directly: "sometimes when you're driving your car and you press down hard on the accelerator, you might hear a knocking, rattling sound down deep in the bowels of the machine. That's Elder Brother, trying to get your attention, begging you to let him out" (75). Set in mythic time, this Elder Brother story culminates by revealing the source of the rattle in a petrol engine. In the context of the story,

however, it adds to the understanding of bitumen as kin, this time in the form of Elder Brother asking you to help him out.²⁰ In one reading, the story could be promoting more conscious consumption—pause before you fill up your gas. But in another, it is promoting a relationship with bitumen outside of the extractive energy relation altogether. "Letting Elder Brother out" could index something quite radical, a reorganizing of relationships to matter that disrupts settler capitalist social relations. The act of storying bitumen in this way, as a kin relation, is a form of asserting Indigenous relationships on and with the land.

I began this article with the logic of visibility in the tar sands—that is, an investment in the urgent communication of the tar sands to those who simply have not seen the true reality of the extraction project yet, and the hope that the more that is revealed, the greater the critical mass required to shut down the industry. I read Cariou's grounded aesthetic as crucial to making the tar sands more "visible," or available to the senses. Cariou seems undecided, however, as to whether mediated exposure to the sensory realities of the tar sands prompts political action. He is also sensitive to the nature of such action in the context of settler colonialism. I therefore track an alternate ethic of action modeled by his artistic practices. In "Nine Principles for a Critical Theory of Energy" (2020), Jeff Diamanti and Imre Szeman critique a political approach predicated on "unveiling," since unveiling "presupposes that seeing things for what they are, as opposed to what they appear to be, disposes with the sedimentation of material and discursive histories in bodies and landscapes: a debunking, rather than a sifting through" (154). Although Cariou seems invested in engendering shock in his representation of the tar sands—an economy of urgent action dependent on "unveiling"—he also practices a slow, grounded "sifting through" of bitumen's other meanings, potentialities, and relationships.

Notes

¹ A powerful movement to claim Canadian bitumen production as ethical emerged in 2010 with Ezra Levant's Ethical Oil. The idea of ethical oil was enthusiastically taken up by Stephen Harper's conservative government and the tar sands were pitched to U.S. markets as a guilt-free, secure, humane, democratic alternative to Middle East reserves. There are approximately 120 tar sands projects owned by corporations like Chevron, Shell, BP, Syncrude, and Suncor (the latter two specialize in the tar sands). In 2019, the sands were producing 2.6 million barrels a day, most of which was sent straight to refineries in the U.S. as diluted bitumen. (These figures are taken from the 2019 National Geographic article on the tar sands, "This is the World's Most Destructive Oil Operation – and It's Growing.") The tar sands struggled with the 2020 plunge in oil prices due to the COVID-19 pandemic, but high-profile investor Warren Buffett held on fast to his shares in Suncor. This reflects a long-term faith in the tar sands industry, which at this point would be more expensive to shut down than keep afloat. Another harbinger of doom for the tar sands was U.S. President Joe Biden's 2021 executive order to revoke the border permit for the Keystone XL pipeline. Rail transportation is much more expensive than pipeline transportation, and so the tenability of the tar sands depends somewhat on its pipeline network. Yet Biden's order didn't make a significant impact on Suncor's climbing share price and 2021 path to market recovery. ² In "Cognitive Mapping," Fredric Jameson describes the effect of global capitalism on subjectivity and the implications of a "dispersed" subject for representation: "You should understand that I take such spatial peculiarities of postmodernism as symptoms and expressions of a new and historically original dilemma, one that involves our insertion as individual subjects into a multidimensional set of radically discontinuous realities, whose frames range from the still surviving spaces of bourgeois private life all the way to the unimaginable decentering of global capital itself. Not even Einsteinian relativity, or the multiple subjective worlds of the older modernists, is capable of giving any kind of adequate figuration to this process, which in lived experience makes itself felt by the so-called death of the subject, or, more exactly, the fragmented and schizophrenic decentering and dispersion of this last" (351).

³ In her introduction to *Fueling Culture* (2017), Jennifer Wenzel writes that while compiling counter-examples is one way to "challenge or update" Ghosh's claim, a "more significant methodological curiosity is in identifying protocols of reading and modes of inquiry that can perceive the pressure that energy exerts on culture, even and especially when energy is not-said: invisible, erased, elided, so 'slippery' (as in

Ghosh's account of oil) and ubiquitous as to elude representation and critical attention" (11).

- ⁴ The phrase "hiding in plain sight" crops up frequently in petroleum criticism. See Stephanie LeMenager's *Living Oil* (2014) and Imre Szeman and Maria Whiteman's photo essay "Oil Imag(e)inaries" (2012) (66; 55).
- ⁵ The term Anthropocene was popularized by ecologist Eugene Stoermer and chemist Paul Crutzen in 2000, designating the epoch of human impact. Since then, a flurry of counter-terms—like capitalocene and plantationocene—have emerged to more accurately describe the human systems responsible for climate change and ecological damage (rather than just humanity in the general).
- ⁶ I borrow this "dual social and spatial" sense of "from below" from Jennifer Wenzel's "Planet Vs. Globe" (2014): "This version of 'from below' is not only subaltern but also subatmospheric: imagining from the earth, from the ground, rather than the satellite or 'bird's eye,' atmospheric, or aerial view" (20).
- ⁷ "Letting die and making live" is a paraphrase of Michel Foucault's formulation of biopower as the state management of life and death, differentially optimizing life for some while hastening death for others by force of neglect ("Society Must Be Defended" 241).
- ⁸ This information is gathered (respectively) from: Phil McKenna's 2016 *Inside Climate News* article; Stephen Leahy's 2019 *National Geographic* article; and Andrew Prince's 2012 *NPR* infographic.
- ⁹ "If Alberta, with its population of four million people, were a country, it would be the fifth largest oil-producing nation. While it produces conventional oil, most comes from the Alberta oil sands, the world's third largest proven oil reserve at 170 billion barrels" (Leahy).
- ¹⁰ Cariou often associates bitumen with the subject-disturbing forces that feature prominently in Julia Kristeva's theory of abjection: the corpse (the "charnel residue on the back of my tongue"); feces (the fart smell in "Athabasca Story"); and milk. As Kristeva explains, an abject thing is something that has been rejected from the subject in order to constitute the boundaries of the self, but it is also, as the radically banished "not I," central to the self: "It is something rejected from which one does not part, from which one does not protect oneself as from an object. Imaginary uncanniness and real threat, it beckons to us and ends up engulfing us" (4).
- ¹¹ Like Canada's other numbered treaties, Indigenous title was extinguished in exchange for guaranteed usufructuary protections around hunting, trapping, and fishing, and various additional agreements. Though the federal government reserves the right to dissolve such "tracts" if they "may be required or taken up from time to

time for settlement, mining, lumbering, trading or other purposes," it can only do so in proper consultation with the peoples affected ("Articles"). Of course, this leaves much open to opportunistic interpretation, and "consultation" occurs fleetingly if it occurs at all. But for many Native communities, Treaty 8 has become a tool of resistance. Recourse to Treaty 8 violations and neglected obligations can be leveraged against tar sands expansion in Alberta.

¹² This information on conditions in the tar sands is gathered from the Indigenous Environmental Network (https://www.ienearth.org/what-we-do/tar-sands/) and an Al Jazeera profile of Chief Allan Adam of the Athabasca Chipewyan First Nation, following an attack on him by the Royal Canadian Mounted Police (RCMP) on March 10 2020 (https://www.aljazeera.com/features/2020/7/15/chief-allan-adam-on-being-beaten-by-police-and-indigenous-rights).

¹⁵ TallBear describes failed settler kinship in the build-up to what is known as the U.S./Dakota War of 1862: "The whites did not know how to do kinship. This took the Dakota a long time to understand. The Dakota had already been living with French fur traders for decades whom they had been able to inter-marry with, trade with, incorporate into their societies, although this was not always a bed of roses. Kinship never is. But these new settlers, English and German speaking, only knew how to evangelize, appropriate, and suppress. They had no interest in engaging in kinship relations. They had no interest in learning from Dakota people. They would make treaties in order to get what they wanted, and then renege on their obligations. The Indian must either adapt to their partitioning of the world—the partitioning of lands, communities, forms of love and kinship, resources, and knowledges—into categories that would either discipline the Indian into being a Christian citizen, or would result in their death. The settler state has been very poor kin indeed" ("Failed Settler Kinship, Truth and Reconciliation, and Science").

¹⁶ In "Oil Drums," Cariou quotes Chief Jim Boucher of the Ft. McKay First Nation: "With the decline in fur demand around the planet, it had a very drastic effect on the area in the sense that we were left without an economy. So we had to change, and that change was brought about with regards with [sic] some discussion in the community saying we need to embrace a new type of economy" (Boucher qtd. in "Oil Drums" 587). Following this, Cariou reflects that "the chief's invocation of economic erasure

¹³ "Redwashing" is a term of Melanie Yazzie's, quoted by Cariou.

¹⁴ See the Wîsahêcâchk story involving a huge number of geese, an ill-timed nap, and a bare ass. There is a recording of Cariou telling it here, in "Wastewest": https://archive.org/details/CariouPollination (starts 26:55). Cariou credits Cree storyteller Louis Bird for this version.

after the decline in global demand for fur indicates the profound sense of crisis and vulnerability that can come to an Indigenous community when it has tied its economy to a capital market that then collapses" (587).

- ¹⁷ See Heather Davis and Zoe Todd's "On the Importance of a Date, or Decolonizing the Anthropocene" (2017); Kyle Powys Whyte's "Indigenous Climate Change Studies: Indigenizing Futures, Decolonizing the Anthropocene" (2017); and Andrew Curley and Majerle Lister's "Already Existing Dystopias: Tribal Sovereignty, Extraction, and Decolonizing the Anthropocene" (2020).
- ¹⁸ "Petrosubjects inhabit a petroculture of quickened time and expanded space that requires oil to make it flow. That flow feels awfully good (for the most part), or if not good, then certainly like the given" (Diamanti and Szeman 143).
- ¹⁹ See Tara Joly's article "Reclaiming Nature? Indigenous Homeland and Oil Sands Territory" (2017).
- ²⁰ See Zoe Todd's article "anthropology of environments: what I learned from the horseshoe crabs" (2019) for another meditation on petroleum as kin that complements "Athabasca Story": "My home province in Canada is built on marine remains. This long and powerful history, in part, is what gives us our petro-wealth. The bodies and traces of ancient creatures both plant and animal have transformed into geologic wealth that fuels every aspect of the Alberta economy. It is a petro-ontology or paleo-ontology that weaves our breath, thought, hubris, and movement today with the bodies and memories of creatures who existed millions of years before us" ("anthropology of environments").

Works Cited

Bell, Robert. "Report on Part of the Basin of the Athabasca River, North-West

Territory." Geological and Natural History Survey of Canada, Dawson Brothers,

1884.

Benjamin, Walter. "The Work of Art in the Age of Mechanical Reproduction."

Illuminations: Essays and Reflections, edited by Hannah Arendt, translated by Harry Zohn, Mariner Books, 2019, pp. 166-196.

- Burtynsky, Edward. "Photographing the Landscape of Oil." *TEDGlobal*, 2009, <u>www.ted.com/talks/edward burtynsky photographing the landscape of oil/up-next?language=en</u>.
- CAPP. "Indigenous Relations." www.capp.ca/explore/indigenous-relations/.
- ---. "What are the Oil Sands?" www.capp.ca/oil/what-are-the-oil-sands/.
- Cariou, Warren. "Aboriginal." Fueling Culture: 101 Words for Energy and Environment, edited by Imre Szeman et al., Fordham UP, 2017, pp. 17-20.
- ---. "An Athabasca Story." Lake: a Journal of Arts and Environment, vol. 7, 2012, pp. 70-75.
- ---. "Oil Drums: Indigenous Labour and Visions of Compensation in the Tar Sands

 Zone." *Materialism and the Critique of Energy*, edited by Brent Ryan Bellamy
 and Jeff Diamanti, MCM Publishing, 2018, pp. 581-602.
- ---. "Petrography." Warren Cariou Website, www.warrencariou.com/petrography.
- ---. "Portfolio: Petrographs." *Photography and Culture*, vol. 13, no. 2, 2020, pp. 253-262. *Taylor & Francis Online*, doi.org/10.1080/17514517.2020.1785652.
- ---. "Strip Mine Horizon to Horizon (detail)." Warren Cariou Website, 2014, www.warrencariou.com/petrography.
- ---. "Syncrude Plant and Tailings Pond Reflection." Warren Cariou Website, 2014, www.warrencariou.com/petrography.
- ---. "Tarhands: A Messy Manifesto." *Imaginations*, vol. 3, no. 2, 2012, pp. 17-34. *York University*, dx.doi.org/10.17742/IMAGE.sightoil.3-2.3.
- ---. "Wastewest: A State of Mind." Cross-Pollinations Workshop, 25 March 2011, archive.org/details/CariouPollination.
- Cariou, Warren, and Neil McArthur, directors. Land of Oil and Water, 2009.
- Coppola, Francis Ford, director. Apocalypse Now, 1979.

- Crutzen, Paul J, and Eugene F. Stoermer. "The 'Anthropocene'." International

 Geosphere-Biosphere Programme (IGBP) Global Change Newsletter, no. 41,

 2000, pp. 17-18.
- Curley, Andrew, and Majerle Lister. "Already Existing Dystopias: Tribal Sovereignty,

 Extraction, and Decolonizing the Anthropocene." Handbook on the Changing

 Geographies of the State: New Spaces of Geopolitics, edited by Sami Moisio et
 al., Edward Elgar Publishing, 2020, pp. 251-262.
- Diamanti, Jeff, and Imre Szeman. "Nine Principles for a Critical Theory of Energy."

 Polygraph: An International Journal of Culture & Politics, vol. 28, 2020, pp. 137159. Amsterdam School for Cultural Analysis (ASCA),

 hdl.handle.net/11245.1/27e78a90-0e59-48f0-a792-f42cc173d1a3.
- Ells, Sidney C. Recollections of the Development of the Athabasca Oil Sands.

 Department of Mines and Technical Surveys, 1962.
- Foucault, Michel. "Society Must Be Defended": Lectures at the Collège de France, 1975-1976. Edited by Mauro Bertani and Alessandro Fontana, translated by David Macey, Picador, 2003.
- Ghosh, Amitav. "Petrofiction: The Oil Encounter and the Novel." *The New Republic*, 2 March 1992, pp. 29-34.
- Helbig, Louis. Beautiful Destruction. Rocky Mountain Books, 2014.
- Indigenous Environmental Network. "Tar Sands." www.ienearth.org/what-we-do/tar-sands/.

- Innes, Robert Alexander. Elder Brother and the Law of the People: Contemporary

 Kinship and Cowessess First Nation. U of Manitoba P, 2013.
- Jameson, Fredric. "Cognitive Mapping." *Marxism and the Interpretation of Culture*, edited by Cary Nelson and Lawrence Grossberg, U of Illinois P, 1988, pp. 347-360.
- Joly, Tara. "Reclaiming Nature? Indigenous Homeland and Oil Sands Territory."

 Engagement: A Blog Published by the Anthropology and Environment Society,

 7 March 2017, aesengagement.wordpress.com/2017/03/07/reclaiming-nature-indigenous-homeland-and-oil-sands-territory/.
- Kristeva, Julia. *Powers of Horror: An Essay on Abjection*. Translated by Leon S. Roudiez, Columbia UP, 1982.
- Leahy, Stephen. "This is the World's Most Destructive Oil Operation—and It's Growing." National Geographic, 11 April 2019,

 www.nationalgeographic.com/environment/article/alberta-canadas-tar-sands-isgrowing-but-indigenous-people-fight-back.
- LeMenager, Stephanie. Living Oil: Petroleum Culture in the American Century. Oxford UP, 2014.
- ---. "When Energy is the Focus: Methodology, Politics, and Pedagogy: A Conversation with Brent Ryan Bellamy, Stephanie LeMenager, and Imre Szeman." Interview conducted by Brent Ryan Bellamy, *Postmodern Culture*, vol. 26, no. 1, 2016.

 Project MUSE, muse.jhu.edu/article/635543.
- Levant, Ezra. Ethical Oil: The Case for Canada's Oil Sands. McClellan & Stewart, 2010.
- Longley, Hereward. "Bitumen Exploration and the Southern Re-Inscription of Northeastern Alberta: 1875-1967." RCC Perspectives: Transformations in Environment and Society, no. 4, 2016, pp. 17-24, doi:org/10.5282/rcc/7695.

- Marinetti, Filippo Tommaso. "The Foundation and Manifesto of Futurism." *Critical Writings*, edited by Günter Berghaus, translated by Doug Thompson, Farrar, Straus and Giroux, 2006, pp. 11-17.
- McKenna, Phil. "With Some Tar Sands Oil Selling at a Loss, Why is Production Still Rising?" Inside Climate News, 23 February 2016,

 insideclimatenews.org/news/23022016/tar-sands-becoming-worthlessproduction-rises-even-prices-plummet/.
- Mettler, Peter, director. Petropolis: Aerial Perspectives on the Alberta Tar Sands, 2009.
- Morin, Brandi. "Chief Allan Adam on Being Beaten by Police and Indigenous Rights."

 Al Jazeera, 15 July 2020, www.aljazeera.com/features/2020/7/15/chief-allan-adam-on-being-beaten-by-police-and-indigenous-rights.
- Pinkus, Karen. Fuel: A Speculative Dictionary. U of Minnesota P, 2016.
- Prince, Andrew. "Infographic: How Tar Sands Oil is Produced." NPR, 8 August 2012, www.npr.org/2012/08/16/158907708/infographic-how-tar-sands-oil-is-produced.
- Robinson, Kim Stanley. 2312. Orbit, 2012.
- Simmons, Kristen. "Settler Atmospherics." *Fieldsights*, 20 Nov 2017, https://culanth.org/fieldsights/settler-atmospherics.
- Simpson, Audra. Mohawk Interruptus: Political Life Across the Borders of Settler States.

 Duke UP, 2014.
- Szeman, Imre, and Maria Whiteman. "Oil Imag(e)inaries: Critical Realism and the Oil Sands." *Imaginations*, vol. 3, no. 2, 2012, pp. 46-67. *York University*, dx.doi.org/10.17742/IMAGE.sightoil.3-2.5.
- TallBear, Kim. "Failed Settler Kinship, Truth and Reconciliation, and Science."

 Indigenous Science Technology Society, 16 March 2016,

 indigenoussts.com/failed-settler-kinship-truth-and-reconciliation-and-science/.

- Todd, Zoe. "anthropology of environments: what I learned from the horseshoe crabs."

 anthro{dendum}, 5 September 2019,

 anthrodendum.org/2019/09/05/anthropology-of-environments-what-i-learnedfrom-the-horseshoe-crabs/.
- Treaty 8 First Nations of Alberta. "Articles of Treaty No. 8." www.treaty8.ca/.
- Wenzel, Jennifer. "Afterword: Improvement and Overburden." *Postmodern Culture*, vol. 26, no. 2, 2016. *Project MUSE*, https://muse.jhu.edu/article/635544.
- ---. "Introduction." Fueling Culture: 101 Words for Energy and Environment, edited by Imre Szeman et al., Fordham UP, 2017, pp. 1-16.
- ---. "Planet Vs. Globe." *English Language Notes*, vol. 52, no. 1, 2014, pp. 19-30. *Duke UP*, https://doi.org/10.1215/00138282-52.1.19.
- Whyte, Kyle Powys. "Against Crisis Epistemology." Routledge Handbook of Critical Indigenous Studies, edited by Brendan Hokowhitu et al., Routledge, 2020, pp. 52-64.
- ---. "Indigenous Climate Change Studies: Indigenizing Futures, Decolonizing the Anthropocene." English Language Notes, vol. 55, no. 1-2, 2017, pp. 153-162.

 Duke UP, doi.org/10.1215/00138282-55.1-2.153.