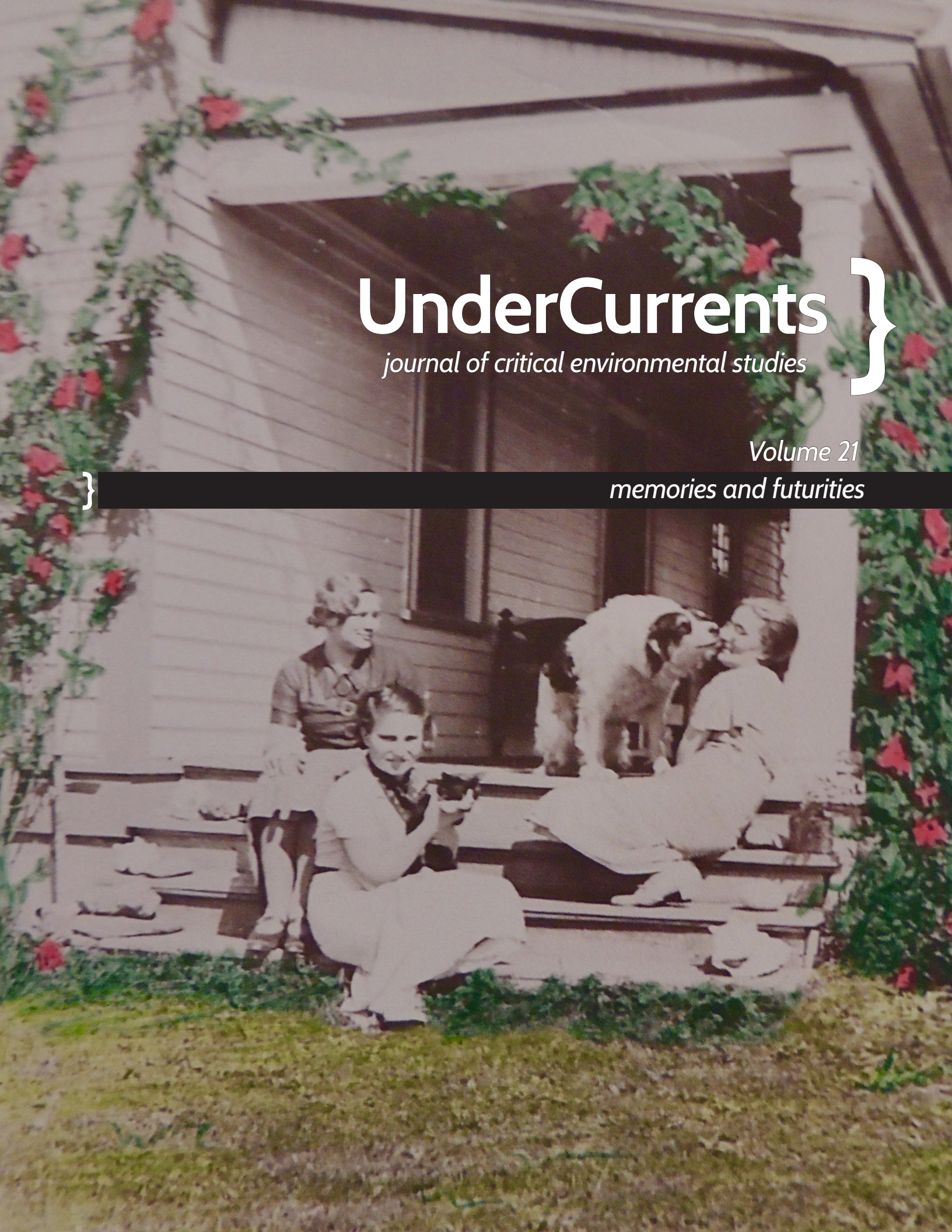

UnderCurrents

journal of critical environmental studies

Volume 21

memories and futurities

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UnderCurrents

journal of critical environmental studies

Volume 21
memories and futurities
2022

unspoken poems for a passed lover

MADELEINE LAVIN

The Waves

We were the waves,
That pushed beyond the shore.
Those that kept them laughing.
Never crashing and succumbing to land
But, rather, breaking on the reef;
Pushing forward:
Beyond,
Always more.
All ways,
Beyond,
Excess.
The space between ocean and tide;
We were the waves
Upon which the animals thrived.

Plateau, Platonic Love

Tension.

That is all there was,
Intensity substituted for climax.

Eternal love:
No culmination,
No end point.

The lines of our shadows extended,
ungraspable;
the vibrations of our voices swirled,
intangible;
As the multiplicities of our selves unfolded,
we changed.

Imperceptibly transformed
By the circulating infinitude of our laughter.

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Editorial Essay

BENJAMIN J. KAPRON FOR THE *UNDERCURRENTS* EDITORIAL COLLECTIVE

> *"I don't believe it. Those stories couldn't happen now," I said.*
> *He shook his head and said softly, "But someday they will talk about us, and they will say, 'Those two lived long ago when things like that happened.' "* (Silko 55)

> *The future has no more powerful anchor than the past because the past is the only certifiable future we have; the past is the only proof we now have that the future did, in effect, once exist.* (Fuentes 338)

The dual themes of volume 21 of *UnderCurrents,* Memories and Futurities, were born from conversations between Sarah Iannicello and me back in 2016. Inspired by then-recent protests—notably, the tent city created by Black Lives Matter – Toronto in March and April of 2016—I was contemplating the praxis of prefiguration: the theory and action of bringing to life more ethical, equitable, and just spaces and worlds—the futures we seek to create—even if only for limited periods of time. Sarah was feeling called to look at memories—personal, collective, and intergenerational—the histories and experiences that reside deep within people, from their own lives and the lives of those who came before, and how those histories and experiences impact people in the present. We thought it would be fruitful and intriguing to bring these two concerns, both working with time, into conversation. How might memories and histories prefigure futures that we seek to create? How might ideas, expectations, and hopes for the future re-shape understandings of the past? What does it mean and look like to, in Carlos Fuentes' words, "[r]emember the future; imagine the past" (338)?

The works in this volume, on their own and in dialogue with each other, respond to these questions and further interrogate these themes, reflecting on the past, the future, the present, and interactions between these temporalities. As a "journal of critical environmental studies," many of the pieces relate to environmental and more-than-human[1] memories and futurities, and all, in varying ways, pursue ethics, equity, and justice.

Our volume opens with two poems by Madeleine Lavin, "written for a former lover but never shared with the intended before they died." As described by Lavin, "[t]hese love poems are informed by a posthuman perspective that looks at relationships between human beings and the more-than-human world, drawing on assemblage theory, environmental temporalities, and a metaphorical new materialism."

The focus on more-than-human remembering continues in Naomi Norquay's essay, "Rumination on a 'fisherman's path.' " By treating land—specifically, a "fisherman's path"—as a palimpsest, "a piece of writing material . . . on which the original writing has been effaced to make room for other writing" (Barber 1047), Norquay unearths beaver, Indigenous, Black settler, and White settler histories of her family property in Artemesia Township, Grey County, Ontario. Kelly King similarly re-thinks the past by unearthing hidden histories of settler family property in "Unsettling the Homestead," an account of an art exhibit with the same title. Working from personal genealogy and Mi'kmaq histories of the Stewiacke Valley, and utilizing artforms that are common in Nova Scotian settler homes, King "interrogate[s] what it means to be a settler on Indigenous land" (17, this volume) by affirming Mi'kmaq and more-than-human presences on the land where her family resides, in what is now known as Nova Scotia. An image from "Unsettling the Homestead" adorns the cover of our volume.

Artist Angie Lea Tupper "mirrors the physicality of body memory" (8, this volume) in "Afterglow." She has arranged a series of frames taken from a home video of her and her cousins playing at a beach into a lenticular print; the images shift as the viewer moves around the piece, calling forth questions regarding the interactions between bodily experiences, recordings, and memory. Tupper notes how "[e]ach retouched frame can only be viewed in a fugitive moment. The sequence provokes the viewer to waltz around the scene, back and forth, through impressions of time" (8, this volume).

The role of the body in memory is also a focal theme in the poems "Requiem to window sealant" by Sophia Jaworski and "Water Memory" by Jaz Papadopoulos. " 'Requiem to window sealant' is an autobiographical exploration of chemical sensitivity. Rather than framing her experiences within illness or suffering, [Jaworski] gestures towards a sensory capacity, one that can produce important knowledge about the relational and disabling consequences of petrochemical worlds" (Jaworski). Following Silvia Federici, Papadopoulos works to "create a more holistic vision of what it means to be a human being" (Federici 15). "[W]riting from a place of queerness, of transness, as a first-generation Greek/Turk/Uke Canadian with chronic pain and a mood disorder," Papadopoulos interrogates "the traumas that continue to live in [their] body—ancestral and current," all the while insisting that "my body is not the enemy" (35, this volume).

In perhaps the most direct response to our inquiries around memories and futurities, Fernando Silva e Silva's essay, "Chronotopographies," builds on Mikhail Bakhtin's work on chronotopes—objects in literature and the lived world that manifest certain combinations of time, space, and subjectivity. Through his analysis, Silva e Silva reveals how certain combinations of time, space, and subjectivity are hegemonic, and explores how "play[ing], mess[ing], and invent[ing] with . . . chronotopes" (11, this volume) through fiction can challenge these dominant chronotopes in order to create new worlds.

Oonagh Butterfield emphasizes our recurring motif of more-than-human memories and futurities in "Vascular Memory." Attuning to the size and tempo of the *Catalpa* plant through a series of macro photographs, Butterfield contemplates what memories are held in human, plant, and multispecies bodies, and what these bodies might carry into composing futures. My own essay, "Storying Futures of the Always-Already Extinct," also envisions more-than-human futures. Inspired by Indigenous scholars celebrating and promoting Indigenous futurities—challenging "widespread discourse that Indigenous peoples are [always and inevitably] on the verge of extinction" (27, this volume)—I extend Gerald Vizenor's concept of "survivance"—active and agential survival—to other-than-human animals. My aim is to utilize "survivance" to challenge similar discourses that animals are inevitably going extinct, instead encouraging the celebration and promotion of more-than-human animal futurities.

Our editorial collective is excited that our volume also includes transcripts of talks given at "Critical Theory for the ~~Anthropocene~~ Future," a conference hosted by Dayna Scott and Sonia Lawrence—faculty members at Osgoode Hall Law School—in June, 2018. The organizers describe the conference as "bring[ing] together a diverse set of critical theorists . . . to tackle the pressing questions related to thriving in the Anthropocene" (Scott). Angela P. Harris calls on scholars to take indeterminacy and the unknown seriously in movements for different facets of justice—what she calls, "[x] justice movements." Harris outlines how taking the unknown seriously meaningfully "incorporate[s] uncertainty, futurity, and humility into critical theory" (41, this volume). Usha Natarajan examines ways that "environmental change provokes a rethinking of what law is"—including for critical legal theorists—"given the significant role of law in creating the difficulties that we face today" (44, this volume). As Natarajan writes, "the concepts that law is built on are wedded to environmental destruction" (44, this volume). And Michelle Murphy, working with the Technoscience Research Unit, provokes a similar rethinking of chemicals, rebuking gaslighting in corporate and state reporting of chemical pollution, and making explicit the relationships between chemicals, settler colonialism, and racial capitalism.

The volume closes with "Dragonfly," Wes Brunson's poetic "attempt to answer a question [Elizabeth] Povinelli asks in *Geontologies*—What does life desire?" Moving through moments from his life, Brunson describes how the poem blurs memory and futurity: "[t]he affective resonance between my childhood bug collection, my ethnographic fieldwork as part of my Ph.D. program in anthropology, and Povinelli's 2016 book disrupts linear notions of time and argues that desire for difference itself produces the distinction between life and non-life."

Disrupting linear notions of time is key to this volume of *UnderCurrents*. Remembering is not just about the past; imagining is not just about the future. Memories, futurities, and the present interweave in constructing worlds that were, worlds that are, and worlds that can be.

Notes

[1] This term comes from David Abram.

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Rumination on a "fisherman's path"

Land as palimpsest

NAOMI NORQUAY

Palimpsest: "1. a piece of writing material or manuscript on which the original writing has been effaced to make room for other writing. 2. a place, experience, etc. in which something new is superimposed over traces of something preceding it. [Latin: palimpsestus *from Greek* palimpsestos *from* palin *again* + psestos *rubbed smooth]"* (Barber 1047).

For the past several years, I have been doing research on a Black pioneer settlement in Artemesia Township, in Grey County, Ontario. Until recently, this historic settlement was rendered marginal to the dominant pioneer narrative as it was told by local residents in their tourist publications, museum, and local histories. My work, and that of other invested and concerned historical and cultural workers, has attempted to reinsert this community into the local narrative about the area's history. I base this paper on the premise that while the present is presumed to always overwrite the past, the past "always shows through the surface of the present" (Gunn 236).

I have organized this paper somewhat like a palimpsest, presenting layers of information that cover and uncover, reveal and hide. The term "palimpsest" has often been used as a conceptual tool for understanding the layering and overwriting of history and culture, not only in archaeology, but also in cities, architecture, archives (see Gunn; Thomas; Daniel and Levi), and on the land. My rumination, here—essentially a reflective revisiting of my recent research—attempts to juxtapose layers of the past and present, the dominant and the marginalized, in a way that hopefully disrupts the very idea of a single, final narrative about this historic settlement.

My parents bought land along the Old Durham Road in Artemesia Township, Grey County, in the mid-1960s. The three adjacent 50-acre lots slope gently down to and across the Saugeen River. We learned from a neighbour that our land had once belonged to a "Black preacher"[1] and that in the nineteenth century "Queen Victoria" had given the land to "Black slaves" coming up from the United States. This small scrap of oral history stood in for this 'disappeared'[2] settlement until 1990, when the community gathered to commemorate the small burial ground that had served the Black settlers from about 1850 to the 1880s. The burial ground, now registered as a cemetery, is the only formal marking of this historic community, which had been sidelined in the history books, and generally sidestepped and denied by local people. The White settlers, mostly from Scotland and Ireland, are known as the area's "true pioneers," even though on this particular stretch of the Old Durham Road the very first settlers were Black.

On one of our three lots there is what we call "the fisherman's path," an informal but well-trodden trail from the old road down to the river. My parents explained that while we owned the land on either side of the river, we did not own the river, and that the public had access to the river through our property, because the path had been in use for a long time. We were quite used to going for walks along the river and on the "fisherman's path" and meeting the fly "fishermen" coming and going from the river.

I believe that "fishermen" are protective of their favourite fishing spots, and so, over the 50+ year period that my family has owned this land, we have never been plagued by what might be termed 'over-use.' The "fishermen" do not leave garbage or beer bottles. They do not linger or picnic. I would say that there are now significantly fewer "fishermen" than there were when I was a child. Perhaps they neglected to tell their children where they fished. Or perhaps there are fewer people willing to venture down a closed and growing-in road to find an unmarked path to a river that cannot be seen from the highway.

Old planked foot bridge. Photograph by Naomi Norquay.

Moment 1

About 40 years ago, some beavers decided to build a home close to the path, where two small streams conjoined on their way down to the river. They built a dam that blocked both streams and created an enormous pond that flooded the path. Their food source was a tall stand of poplar trees through which the path wound its way to the flood plain. The beaver pond meant that anyone trying to use the path down to the river had to make a detour along the edge of the dam and pick up the path where it continued on the riverside of this seemingly spontaneous habitat. We did not mind. The pond froze in the winter, and we enjoyed watching steam rise off the beaver mound on the very cold days. At some point the food was gone and the beavers moved on. Apparently, our neighbour, who had a pond of his own, was anxious to keep the beavers out, as their dam-building might cause the pond to overflow its banks and the berm to give way. Without our permission, and likely without knowing that the beavers were no longer there, he blew up the dam, just where the two streams joined forces. We were not present when this happened, but the devastation we found suggested something of the force of the water rushing out. The water pulled the topsoil away, cedar trees were toppled, and right on the path, where the soil had been stripped, an old wooden planked footbridge came into view. I do not know who might have put it there, but it had been hidden from view by the topsoil and then the water, until the dam was blown out. In this uncovering, something of the path's history had been revealed.

Moment 2

A couple of years ago, the South Grey Museum in the nearby village of Flesherton was given the professional papers of a retired archaeologist who lived in the community. Among his papers was a report written in 1989 about an archaeological survey he had undertaken in 1984 to "document and locate prehistoric archaeological sites discovered by landowners and farmers throughout the townships of Glenelg and Artemesia, Grey County" (Gray). The archaeologist accompanied local farmers to the sites where they had discovered "prehistoric" [*sic*] artefacts identified as "scrapers" and "points." One of the sites appears to be just about where the "fisherman's path" meets the Saugeen River. The report reads:

> The site was accidentally discovered in July of 1984 by Mr. Calvin Hutchenson [*sic*].[3] Calvin had been fishing along the Saugeen River approximately one kilometre upstream from his home in Priceville. Along the western bank on a low lying flood plain, he spotted what looked like the light-coloured edge of a clam shell. Upon closer examination a beautifully worked white quartzite projectile point was unearthed. (Gray 9)

The report includes this description of the "fisherman's path":

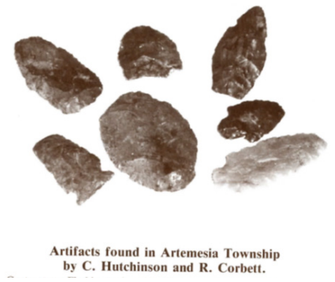
> Access: Drive south on the Old Durham Road, off of highway #4, just east of the village of Priceville. When the road turns to the east (approx. 100 metres from the highway), drive down old wagon road to the right and park. Walk south, down the hill to the Saugeen River . . . Present Owner: Unknown. (Gray 10)

The point, now known as the "Hutchenson Point," is in the possession of the "fisherman" who found it. The archaeologist placed it tentatively in "the Late Archaic Period" and concluded: "[s]ince the point was found on a low lying flood plain it may suggest that it had been carried downstream and deposited by flood waters or was simply a point that missed its mark" (Gray 9). Mr. Hutchinson's artifact collection was included in the township's local history, published in 1986. The image on the right appears in the opening chapter, "Ancient Artemesia" (Hubbert 6). The "Hutchenson Point" is the artefact in the bottom right-hand corner.

Moment 3

In 1848–49, the Artemesia portion of what is now known as the Durham Road was surveyed by David Gibson. Gibson's field notebooks from that survey are in the Toronto Archives and are available for scrutiny. A couple of summers ago, I spent some time with them, gingerly turning their pages. Gibson provided descriptive notes for each lot he surveyed along the future road. I had been hopeful that I might find reports of squatters in his notes, that is: people living on unsurveyed land, carving out subsistence amidst the towering forests that then dominated the landscape. Artemesia Township was part of treaty lands surrendered to the British government in 1818 by the Chippewa Nation (Marsh). It was not open for settlement until after the Durham Road and the Toronto Sydenham Road were surveyed in 1848–49. Oral history suggests that before the area was opened for settlement, Black people may have squatted on the land—thereby sedimenting the claim that they arrived "first." According to government policy, surveyors were compelled to report any squatters they came across. I found no evidence of squatters in Gibson's field notes or his report.

I was disappointed that no squatters were reported. However, I was very keen to learn how he described the three lots that my family purchased in 1966. His descriptions were quite similar to the rest of his notes, with one exception. His note for Lot 9—our middle lot—starts with this notation: "old cutting trapers [*sic*] line; Hem[lock] ridge; Run to S[outh] E[ast] spring water; Maple Bush & Elm descending to the South" (Gibson 9). The place he is describing overlaps the "fisherman's path."



Artifacts found in Artemesia Township by C. Hutchinson and R. Corbett.

"Hutchenson Point" (bottom right) (Hubbert 6).

Discussion

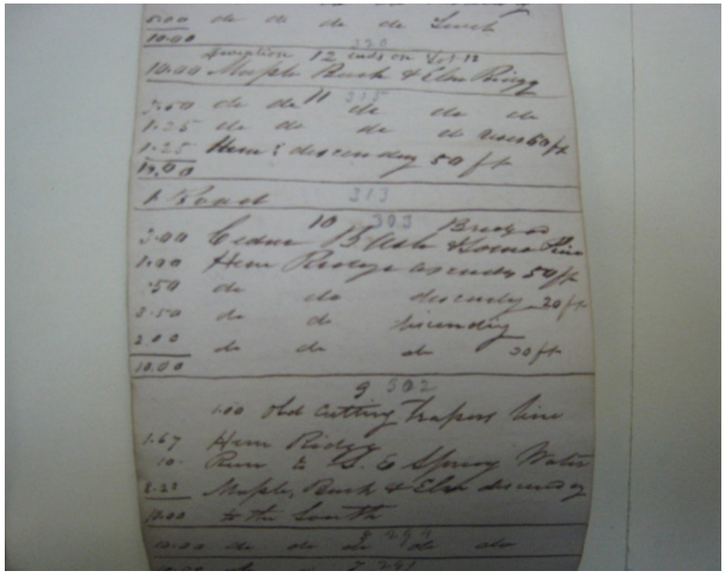
There is no way to set these moments in any kind of "correct" temporal linearity. While the actual events they concern—the point finding its resting place, the surveyor surveying the road and noting the trapper's line, the beaver dam blow-out revealing a very old cedar footbridge—did occur in linear time, viewing them through that lens ignores the ways in which history and history-making rely on socio-political, cultural, and ideological underpinnings, which change over time. History is discur-

sively produced. What 'counts' as an artefact is also discursively produced. These 'evidences' live together simultaneously in the present. I recognize them as signifying *different* histories: Indigenous, Black settler, and White settler. These histories carry different cultural capital, depending on the context in which they are produced and narrated. In what follows, I re-read the land, trying to hold all these evidences together—enmeshed, rather than layered—in an attempt to allow these histories to co-exist.

Vacant Land

When my parents purchased the three 50-acre lots, the land was described as "vacant," meaning it was not being farmed or utilized for anything and there was no dwelling place on it. I recall my father describing it as "scrub" land—that is, not suitable for farming. The "fisherman's path" traversed this vacant place. While it was evident that the property had human history, the history did not signify in terms of the "fisherman's path." In other words, while we knew that a Black preacher had lived in a log cabin, we did not imagine him taking the "fisherman's path" down to the river. The path represented a White space that was populated by our neighbours.

In *Learning to Divide the World: Education at Empire's End*, John Willinsky reminds us that the Europeans regarded what they eventually called North America as "*terra nullius*"—empty land. David Gibson's field notes are full of descriptions of the land he was surveying as seemingly untouched by human presence. Page after page lists maple, elm, hemlock, cedar, ridges, swamps, streams, and springs. The detail gets monotonous. And therefore, "old cutting traper's [*sic*] line" comes as a surprise. Human presence of some kind is being noted, but I am not sure whose. Was this a reference to former squatters, no longer present in 1848? Was this an acknowledgement that the land had been, until recently, First Nations' hunting territory? Was it still? I recall an elderly neighbour telling us that her grandmother remembered seeing "Saugeen Indians" on our land—on the hill later described in the archaeologist's account [image above]. Gibson's notation seems incomplete and, as a result, ambiguous. Like the term "vacant," it is overladen with meaning, overburdened with an absent presence.



David Gibson's field notes pertaining to Lot 9 (City of Toronto Archives, Fonds 79, Series 344, File 34). Photograph by Naomi Norquay.

The idea of the land being vacant is also marked in the archaeologist's report. Written in 1989, the report states: "Present Owner: Unknown." When my father died in 1980, my mother became the sole owner of the property. I wonder whether Calvin Hutchinson had known my father and had known he had died. Perhaps he made an assumption that after my father's death, the land was sold. Or perhaps it was more convenient for the "fishermen" to 'not know' whose land it was they were traversing. I recall that soon after my parents purchased the land, my father attempted to post "No Trespassing" signs. He had been advised that we needed the "No Trespassing" signs for liability issues. The signs did not last. They were pulled down, time and time again, and finally wound up in the shed once my father gave up remounting them. The "fishermen" may have felt more comfortable traversing "vacant land" than trespassing on private property, even though common law gives them the right to access the river along this historic path.

Land as Habitat

It might be useful to know that since the beaver dam construction some 40 years ago, the beavers have returned twice to feast on the poplars (that speedily grow back) and dam the streams. This repeat performance suggests to me that there has been a much longer cycle of beavers building dams at this juncture. It suggests that my family is not the first to have encountered beavers with their curious cuisine and habitat construction. I am guessing that beavers have been building, eating, leaving, returning for eons: each time disrupting the water table, plant life, and topsoil; each time encountering (enduring? suffering?) human presence: hunters, trappers, "fishermen," farmers, preachers, men, women, boys, girls, Black settlers, White settlers. I suspect that, long-ago, activity by the beavers precipitated intervention by way of the little footbridge.

The presence of an "old cutting traper's [*sic*] line," in an 1848 report, might indicate that the beavers—and other mammals who live near the river—had long been a resource for human beings. I recall that, up until the late 1970s, my father allowed a man from Priceville to set his trapline in the vicinity of the path, during the winter months. I am guessing that the man approached my father and asked permission to set traplines, because he had done so before. Prior to my family owning the land, it had been jointly owned by two local farming families. Since it was hilly and swampy, they had not used it for farming. Although the land had been cleared and farmed by a Black settler, by the 1960s it was fast filling up with hawthorns, chokecherries, wild apple trees, swamp willow, and cedar. It was a perfect habitat for beavers and other river-based mammals: a good place for a trapline. It was an ideal place to stalk and spear game for survival. It was a good place to find a "Late Archaic Period" point that "missed its mark" (Gray 9). The beavers and their habitat might be understood as standing in for the waves of human presence and intervention. Their age-old cycle of habitat-making holds in place the forgotten, left out, and denied histories.

Land as Palimpsest

I was initially drawn to the concept of land as palimpsest because my evolving understanding has been shaped by the scraping away of narratives. This scraping away has largely been land-based, as I have tried to connect the land to the history in ways that challenge the dominant White settler narrative. It has relied on archival and oral history research (see, for example, Norquay and Garramone; Norquay), as well as family stories, my own memory work, and a lifetime of walking and working the land. As I have tried to do here, I constantly juxtapose these research methods and their findings, creating my own layers of documentation. As I have scraped away 'versions of the past,' I have had to create new narratives. The evidences presented here suggest that while, historically speaking, narratives of "White pioneers" rubbed out and replaced the narratives of "Black pioneers," and narratives of colonization rubbed out and replaced narratives of First Nations peoples, these narratives all compete for our attention and allegiance at the same time. These layerings are neither discrete nor bounded. Rather, they interrupt and disrupt each other.

This approach to the area's histories has been helpful in reassuring dubious White settler descendants that their history still "matters," and is still valid, and that re-inserting Black pioneer and First Nations history into the historical narrative of the area does not undo their history. Imagining that the "fisherman's path" has been used since time immemorial reminds all settler descendants that their tenure and entitlement resulted from a forced displacement of First Nations people, that they were not "first," and that the land they ripped open for settlement was not "vacant." The 'evidences' I have 'uncovered' and discussed here illustrate the ways in which all the histories of this land are always present. This has been, at least for me, the value of considering the land as palimpsest.

A palimpsest might be understood as a "dialectic between memory and forgetting" (Thomas 6). Remembering and forgetting participate simultaneously, as scraping away and overwriting do the never-ending work of privileging one history over another. But the dominant history only partially obscures that which it has rubbed out. As prior writings on ancient pieces of velum eventually make their presence known as shadows beneath their successors, so too do the traces of prior inhabitants of the land along what is now known as the Old Durham Road. These traces—these revelations—require our informed imagination. However, once they capture our attention, we must also have the desire to question and challenge the rubbing out and the overwriting. Foremost in our work must be the practice of preservation—not only of what is uncovered, but also of that which did the covering—the overwriting—the land as palimpsest, always, already.

Notes

[1] All words appearing in quotation marks indicate common usage in conversation. "Black preacher," "fisherman's path," "Queen Victoria," "slaves," etc. all belong to this narrative inheritance.

[2] I am deliberately using the verb 'disappear' in the transitive form, in reference to the term used for victims of political persecution in Latin America (los desaparecidos, 'the disappeared ones'). I do this in order to suggest the deliberate nature of the acts of disappearance that made this community invisible in most historical accounts. See Appiah and Gates 175.

[3] "Hutchenson" is incorrect. The name should read "Hutchinson."

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Afterglow

ANGIE LEA TUPPER

You can see Afterglow in motion at https://tiny.cc/uc_afterglow or https://youtu.be/kjKQr38c7qA.

This mixed media piece explores the relationship between memory and home videos. The chosen scene is an everyday glimpse of childhood recreation: my cousins and I swivel in the sand at the water's edge. I have a distinct memory of the sunshine wicking water droplets from my skin with its radiant warmth, but when I return to re-watch the home video, the light projecting from the screen is an undeniably overcast grey. Even with this discrepancy between my body memory and the recording, I question how much my recollection is a testimony of the immediate sensory experience and how much it is an adaptation of the home video that I have seen replayed so many times. It is one of few recordings that capture my cousin Oliver and me together; 2022 marks the fourteen-year anniversary of his death. The light that bounced off of our forms, that summer afternoon, is re-animated with each replaying of the video. Memory is re-minded with each re-watching.

My process developed as a response to this shifting palimpsest of recollection. After transferring twelve evenly-spaced video frames to canvas, I hand-painted and beaded the degraded stills to match the coloration of my mind's image. In their final iteration, the canvases are presented in sequence as a lenticular print. Moving in tandem with the viewer, the effect mirrors the physicality of body memory. Each retouched frame can only be viewed in a fugitive moment. The sequence provokes the viewer to waltz around the scene, back and forth, through impressions of time. In contrast, the vertical plastic lenses of the lenticular print recall the striations of traditional televisions. Painterly textures and interactive motion compete with an impression of flatness and locked recording.

> *It is false to say that the screen is incapable of putting us 'in the presence of' the actor. It does so in the same way as a mirror . . . but it is a mirror with a delayed reflection, the tin foil of which retains the image.* (Bazin 97)

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Chronotopographies

Chronotopes and the Crafting of Fictions

FERNANDO SILVA E SILVA

[E]very entry into the sphere of meanings is accomplished only through the gates of the chronotope. (Bakhtin 258)

Modern thought—from René Descartes to Immanuel Kant, from Galileo Galilei to Isaac Newton—played an important role in shaping Western conceptions of time, space, and the subject as stable and unchanging categories, untouched by worldly matters.[1] To this day, these attitudes towards time, space, and the subject permeate philosophy and the sciences, which makes it difficult for those of us who have been schooled in these modern ways of thinking to identify and understand transformations that appear to affect these seemingly basic categories. In this essay, I present the idea of chronotopography, which is what I call fiction that is both investigative and creative, and that plays, messes, and invents with what Mikhail Bakhtin calls chronotopes—combinations of time, space, and subjectivities.

Many scholars agree, although for different reasons, that there have been fundamental shifts during the last few decades regarding how time, space, and/or subjectivities are conceived. Even with scientific and political disagreements regarding how to best understand these shifts, one can still easily think of a few examples. The 1980s and the 1990s saw the rise of a new type of globalized space—albeit one with ancient colonial roots—built upon complex fluxes of supply chains and precarious labour. Advances in information technology through the 1990s and 2000s dislocated notions of time and space; it is now commonplace to instantaneously share digital information across vast distances, for those who can afford to. In the 2000s, while the global North went through neoliberal and conservative governments, simultaneously feeding off of the economic imperative of growth and the ever-mounting fear of terrorism, that same decade brought hopes of more social justice to millions of forsaken people in Latin America as a number of centre-left presidents came to power—although these hopes have now been mostly crushed.[2] In the late 2010s, modern workplaces and working hours have become much more demanding and now shape peoples' lives: how and where they live, how they distribute their time, and how they take care of themselves. The average person has limited space that they can consider their own, and cities' public spaces seem to diminish everywhere, while business giants like Amazon and Google claim enormous urban areas for themselves. To top it off, climate change is making what was most reliable for thousands of years—the weather, the seasons, and biochemical cycles—more and more uncertain. How are we to understand such a different world using our previous ways of thinking? Most importantly, how are we to imagine other ways of existing?

Chronotopographies are stories that are looking for radically-other dispositions of times, spaces, and subjectivities. Today, chronotopographies are stories that want to break not only through the gridlock of capitalist realism—"the widespread sense that not only is capitalism the only viable political and economic system, but also that it is now impossible even to *imagine* a coherent alternative to it" (Fisher 2; Fisher's italics)—but also through wholesale modern utopianism still animated by dreams of progress, growth, techno-fixes, and, above all, human supremacy.

In order to propose the concept of chronotopography, I have drawn from many different sources, but the most important one for this text can only be Mikhail Bakhtin. Bakhtin was a twentieth-century Russian philosopher of language and art who developed the concept of the chronotope in the 1930s[3] to talk about how time, space, and subjectivity influence each other, especially in literature. Inspired by Marxist philosophy of history, Bakhtin saw literary genres as constantly changing, evolving, fusing, and disappearing in relation to aesthetic, ethical, economic, moral, philosophical, and other values. We may call this type of analysis Bakhtin's "historical poetics." It is upon his concept of the chronotope that I aim to build the concept of chronotopography.

My interest in chronotopographies lies in their capacity to craft fictions that challenge hegemonic regimes of temporality, spatiality, and subjectivity—that is, hegemonic chronotopes. These fictions confront and reinforce each other, bringing about new worlds. Chronotopographies are a special sort of fiction that direct acute attention to the three components of the chronotope—time, space, and subjectivity. The term chronotopography is not entirely unheard of in English-speaking academia (Roderick; Howell and Beckingham), stemming as well from Bakhtin's work on the chronotope. However, it has not yet, to my knowledge, seen a thorough methodological and conceptual development. Further work on the notion of chronotopography will not only make chronotopes more noticeable, but it will also make the active production of chronotopes visible, through the reworking of their three components.

My work was set in motion by realizing that stories can make history, that fictions are present in every being's most elementary actions, and that fictions shape the most basic elements of our experience of reality. Even though the rest of this text mostly focuses on

literature, due to Bakhtin's interests, I use the term "fiction" very broadly here, akin to Isabelle Stengers' way of deploying it when talking about the sciences and philosophies: every scientific or philosophical theory, every creative work, and every mode of existence is fiction, at least at some point in its history.

In this essay, I aim to elucidate Bakhtin's concept of the chronotope and to construct that of chronotopography. The first section presents an overview of Bakhtin's concept of the chronotope, as seen in the essay "Forms of Time and of the Chronotope in the Novel." Bakhtin's theoretical works have a complex philosophical and linguistic background that will not be possible to reproduce in this essay. I focus on the most basic characteristics of the chronotope, and the relation between represented chronotopes—also called literary or fictional chronotopes—and real chronotopes—also called actual chronotopes. The former are those chronotopes crafted by the author in the act of composing their fictional work, while the latter are those chronotopes that make up the historical, ever-changing, lived world. These real chronotopes are the author's raw materials and also the reader's footing in the act of reading, although most of the time the author and reader do not share their chronotopes; they are often separated by temporal and spatial distances, and have different subjectivities.

Chronotopographies are stories that are looking for radically-other dispositions of times, spaces, and subjectivities.

In the second section, I bring a definition of fiction in order to develop the concept of chronotopography as a unique kind of fiction that confronts existing chronotopes. Chronotopography is not an attribute essential to any given fiction; it is a relational story, a form of functioning, that can only exist insofar as it opens a path beyond contemporary temporalities, spatialities, and subjectivities.

1. Chronotopes

In order to develop the concept of chronotopography, it is first necessary to establish the nature of the chronotope, and its relation to different manners of inhabiting and producing time and space. A chronotope is the crystallization of a specific combination of time, space, and subjectivity in a single entity that we may find in fiction as well as in the world. In a chronotope, these three categories condition each other mutually, and shifts in any one of them may produce a general transformation in the chronotope. What the concept suggests, then, is that there are connections—visible and invisible, conscious and unconscious—between certain temporalities, spatialities, and subjectivities and that these configurations are situated and contingent.[4]

To Mikhail Bakhtin, the chronotope is, above all, a concept of literary theory, even if its initial inspiration lies in relativistic physics. It is "the intrinsic connectedness of temporal and spatial relationships that are artistically expressed in literature" (Bakhtin 84). Furthermore, Bakhtin emphasizes that the chronotope "expresses the inseparability of space and time" (84). Equally indissolubly, "the image of man in literature . . . is always intrinsically chronotopic" (Bakhtin 85). Bakhtin erects his historical poetics on top of this constructed object of analysis—this crystal of time, space, and subject—and, in the same essay, develops a study that includes many different kinds of texts—from classic Greek narratives to nineteenth-century French and Russian novels. The chronotope may seem, when so introduced, a difficult concept to articulate in the analysis of fiction. To Bakhtin, however, the chronotope takes shape in simple forms: as the road in chivalric romances or picaresque novels, the castle in gothic novels, the literary salon in Balzac's works, and the rural village in Flaubert's novels. These unities, which can appear to be no more than background—mere accessories for the plot's unfolding—actually contract into themselves the three components of the chronotope. The gothic castle, for instance,

> is saturated through and through with a time that is historical in the narrow sense of the word, that is, the time of the historical past. . . . [T]he traces of centuries and generations are arranged in it in visible forms as various parts of its architecture, in furnishings, weapons, the ancestral portrait gallery, the family archives and in the particular human relationships involving dynastic primacy and the transfer of hereditary rights. And finally legends and traditions animate every corner of the castle and its environs through their constant reminders of past events. (Bakhtin 245–246)

As we can see in the example above, the chronotope of the "gothic castle" suggests a very specific combination of temporalities and spatialities where every corner of the castle associates objects and their disposition to a long human history conceived in dynastic fashion. This castle is a space appropriate for a certain kind of subjectivity, that of the noble—even if a decadent one—while any other would be out of place. The chronotope, then, exists precisely to make visible this articulation where time, space, and subjectivity mutually constitute each other. It is important to mention once again that these characteristics are not necessary; they are constructed and can be reappropriated, creating something new. When Bakhtin describes the chronotope of the road by the end of his essay, it is specifically its many transformations that interest him: how the theme of the chance encounter on the road changes from classic and medieval literature to romantic and historical novels of the nineteenth century (244–245).

Even if there is often a dominant chronotope in a certain work of fiction—the gothic castle in Bram Stoker's *Dracula* or the road in Miguel de Cervantes' *Don Quixote*—"each such chronotope can include within it an unlimited number of minor chronotopes; in fact . . . any motif may have a special chronotope of its own" (Bakhtin 252). That is why the goal of chronotopic analysis is never to discover or design the one and only chronotope of a specific narrative. On the contrary, one must map the great variety of chronotopes present and take note of their combinations, dispositions, and hierarchies. Any chronotopic study must keep in mind that "[c]hronotopes are mutually inclusive, they co-exist, they may be interwoven with, replace or oppose one another, contradict one another or find themselves in ever more complex interrelationships" (Bakhtin 252). The major and minor chronotopes that make up a fictional work are, according to Bakhtin, all created "in a real, unitary and as yet incomplete historical world . . . [t]herefore we may call this world the world that *creates* the text" (253; Bakhtin's italics). Here, we start to see what Bakhtin calls real or actual chronotopes as opposed to literary, fictional, or represented chronotopes.

Despite his focus on literary science, Bakhtin gives great importance to real chronotopes, because they are necessary constituents of human experiences in the world and the ultimate source of all fictional chronotopes. He affirms that "[o]ut of the actual chronotopes of our world (which serve as the source of representation) emerge the reflected and *created* chronotopes of the world represented in the work (in the text)" (Bakhtin 253; Bakhtin's italics). He draws a clear, distinctive line between the two types of chronotopes, stating that "we must never confuse . . . the *represented* world with the world outside the text (naive realism)" (Bakhtin 253; Bakhtin's italics). We must not jump to the conclusion that this opposition between the represented world and the world outside the text reproduces oppositions such as true and false or real and unreal. Bakhtin's point is that "the real and represented world resist fusion" (Bakhtin 254); they are not the same and cannot be made the same. However, "they are nevertheless indissolubly tied up with each other and find themselves in continual mutual interaction; uninterrupted exchange goes on between them" (Bakhtin 254). That is, real chronotopes constantly serve as raw material for new represented chronotopes, while represented chronotopes enter the real world and enrich it in a continual renewal as the work comes into contact with different real chronotopes—as time, place, and the people that come into contact with the work change.

[C]hronotopographies . . . craft fictions that challenge hegemonic regimes of temporality, spatiality, and subjectivity–that is, hegemonic chronotopes. These fictions confront and reinforce each other, bringing about new worlds.

If the road, the castle, the salon, and the rural village are good examples of longstanding literary chronotopes, what are some emblematic real chronotopes? Bakhtin does not give us many examples, but an important and informative one is the agora. To him, it is important to understand that the Greek public square was not simply a space among others, a replaceable background. Quite the opposite, the agora was an "all-encompassing chronotope, [where] the laying bare and examination of a citizen's whole life was accomplished, and received its public and civic stamp of approval" (Bakhtin 132). The subjectivities that could take part in the agora's activities were fundamentally different from those that could not. The former had their lives open to public scrutiny, but were the only bearers of true citizenship, while the latter were mostly anonymous and had meagre political power. Only a certain kind of man could occupy this subjectivity, which granted public pull, but captured these subjectivities into the demands of the chronotope, forcing them to respect its spatiality and the temporality of its proceedings. This example shows the "reciprocal capture" (Stengers, *Cosmopolitiques* 68) between time, space, and subjectivity in the chronotope. In a true chronotope, there is a mutual determination between these three poles, and it is only possible to break free via the emergence and proposition of new chronotopes.

What Bakhtin calls actual or real chronotopes are, I advance, objects we can only delineate by paying a special kind of attention, looking for the reciprocal capture of time, space, and subjectivity. Naming them "real chronotopes" is surely problematic, as it seems to relegate fiction to the position of the unreal or false. While I choose to keep Bakhtin's preferred term for now, we must keep in mind that fictions have actual material existences, which constantly couple and decouple with other fictions, bodies, critters, sciences, and so on—a point I will return to in the next section.

Real chronotopes may be the object of study of researchers across disciplines, even if the articulation between time, space, and subjectivity is not always in the foreground. Michel Foucault's works are probably some of the most well known that effectively direct our attention to mutual determination in, what Bakhtin calls, real chronotopes. Foucault's now classic analysis shows that discipline produces disciplinary subjects by means of specific kinds of temporalities and spatialities. In *Discipline and Punish*, Foucault demonstrates that new technologies of power emerge during modernity, forming the regime of disciplinarity. Disciplinarity is not to be found in a transcendental plane, exerting power from without, but in the very shape of the chronotopes that produce and enforce it: the prison, the school, the barracks, and so on. It is no surprise then that Foucault's reflections on how to break free from the grip of discipline do not look for individual change, but changes in the form of subjectivation, which must necessarily take regimes of temporality and spatiality into account—as it was put most ex-

plicitly, I believe, in his essay "Different Spaces." In "Different Spaces," Foucault employs the concepts of heterotopias and heterochronias, "elsewheres" and "elsewhens," to talk about chronotopes strange to their time and their surroundings. Puritan societies, honeymoons, Jesuit reductions, brothels, and pirate ships are examples that the philosopher deploys. All of these are real chronotopes and would benefit from the systematic approach of a Bakhtinian framework, mapping their internal (time, space, and subjectivity) and external (other real and fictional chronotopes) relations.

Chronotopes, whether real or fictional, have existence in reality, and their continuous circulation, recombination, and dialogue shape and transform our possibilities of inhabiting the world. Despite the long persistence of some chronotopes, they are not transhistorical entities. They are crafted collectively inside historical communities, which also means that what temporalities, spatialities, and subjectivities will give form to our future is up for grabs. The question of how to affect, parasitize, or sabotage dominant chronotopes is what brings us to the subject of chronotopography.

2. The Power of Fiction

I suggest we understand the term chronotopography as a type of fiction that directly engages with chronotopes. Its goal is not only to perform chronotopic analysis—that is, to make explicit certain combinations of time, space, and subjectivity—but also to affect these very compositions by creating new chronotopes, new propositions of what the world can look like and how it can function. As stated before, fiction has a broad meaning here. It is the radical "And if?" that "expresses and invents a positive meaning for the fact that it became possible, at a certain moment, to resituate an aspect of the familiar reality within a much vaster imaginary reality where what we know is only one story among others" (Stengers, *Power and Invention* 136). In this sense, a fiction can be philosophical, scientific, and/or artistic. Crafting new chronotopes, or performing chronotopography, is about interweaving different kinds of fictions, which are themselves part and parcel of yet other chronotopes. As Stengers puts it, "[a] fiction, even if it is the product of an individual, always expresses what a history enables this individual to think, the risks that he is capable of taking" (*Power and Invention* 136). The concept of chronotopography aims to detect and enhance the radical leaps of imagination taken by fictionists who shape novel chronotopes; these leaps are a crucial part of, as Donna Haraway would say, worlding new worlds.

No fiction, however, can draw its power exclusively from the act of creation by the author, much less are the consequences of such creation predictable. That is to say, no chronotopography exists on its own, by essence. Bakhtin affirms very strongly that the effects of the represented chronotope—that is, the work of fiction—depend greatly on its interactions with the real chronotopes that it comes into contact with, which may happen long after said fiction first comes to light. A fiction is historically chronotopographical, because it only is so as far as it challenges hegemonic chronotopes, which are constantly changing—despite the persistence of some of them.

What, then, are the hegemonic chronotopes that radical fictionists are helping readers create against? The last 25 to 35 years, in the West, seem to be marked by transformations in relation to time and space, and the reconfiguration of subjectivities and forms of subjectivation. How people dwell in the world, what they call themselves, how they see themselves, how they connect to other people, how they spread geographically, how they tell their personal and collective stories, and how they plan their lives have changed fundamentally.

A series of events have attracted this shift, but two are typically indicated as central: the fall of the Berlin Wall, as shorthand for the fall of the USSR, and the ecological crisis (Latour; Koselleck). Both events reorganized the globe irreversibly. The first made an ideological divide crumble, which was determining everything from international geopolitics to singular subjectivities on both sides of the political spectrum. The second brought the Earth, in all its materiality, back to public debate in a novel way, which made previous assumptions of infinite resources and the image of the planet as a passive environment—mere background to the development of civilization and the enterprise of humankind—absurd.

The breakdown of the Soviet project gave rise to the fancy that the hegemony of Western liberal democracy was the end of history, the apex of humanity's ideological evolution (Fukuyama). The future would be defined by pure social and technological progress, the perfecting of a final model. Complete certainty about what was to come made it a sort of permanent present. Almost at the same time, the climate crisis put an end to the imagined linear evolution of social models—capitalist and socialist equally. In the 1960s, ecological social movements gained strength with the publication of Rachel Carson's *Silent Spring*, with its fabulation of a future when birds would no longer sing in spring due to the uncontrolled use of pesticides. This perspective reorganized the collective expectations of people at that time, as they wished for a certain past to return to the present through the conservation of ecosystems, while projecting a future—at the same time—by asking 'what kind of planet will the next generations inherit?'. However, the problem of mere conservation fell to the background in the 1990s as climatological forecasts became both more uncertain and more frightening. It is extremely difficult to imagine the future of the Earth—and humanity's future on it—but everything indicates that it is impossible to perpetuate current Western socioeconomic models (Merchant; Stengers, *Au temps des catastrophes*). What the historian Reinhart Koselleck calls the metahistorical conditions, space-time conditions that repeat and make us capable of foresight—like the seasons or animal migrations—have lost their fixity and are now at the foreground of human history (83–85).

These two great late-twentieth-century happenings—and we could add others, like the reconfiguration of the colonial enterprise by the so-called global North over the South (Stengers and Pignarre 88–90)—are sources of uncertainty that give no sure footing to contemporary subjects. It is no wonder then that, despite the polemics around it, the proposition of the new geological epoch called the Anthropocene has so quickly taken hold of the West's imagination, and that "we are pressured from all sides to climb on [its] bullet train" (Hache 108). The Anthropocene, despite its apparent catastrophism, seems to put everything back in its place: Western science is still the gatekeeper of which entities matter to our collective life, capitalism still regulates the global flows of matter and people, and people are urgently called to action to, finally, not do or change very much. That is why Émilie Hache urges us to have a "creative and undisciplined relation . . . towards the Anthropocene" (109). Can we not come up with richer stories? Is our capacity to invent new worlds really that feeble?[5]

But what is another world made of? Chronotopography, the fictional fabulation (Burton) of chronotopes, a laboratory of virtual modes of existing, is the main *locus* of this questioning. At the same time, fiction can also be a safe space in which to imagine the, sometimes spectacular, end of the current world (Szendy). Contemporary speculative literature is fertile soil for chronotopographical creation, but this increasing move toward inventiveness as an attempt to deal with the ordeals of the present can also be seen in the philosophies and the sciences.[6] Since the 1960s at least, speculative literature simultaneously tries to tackle the challenges set by the changing temporal, spatial, and subjective conditions and to affect the course of the present, as indicated by the question in the title of J. K. Ullrich's column in *The Atlantic*, from August 2015, "Can Books Save the Planet?". Authors like Kim Stanley Robinson, Octavia Butler, Jeff Vandermeer, and Ursula K. Le Guin research, in their fiction, topics as diverse as human-alien symbiosis, the writing of constitutions, the terraforming of Mars, and the limitations of state agencies in dealing with ecological change. Their works are related to many others that play with chronotopes, searching for new ways of arranging their components—works such as utopias, dystopias, weird fiction, *voyage extraordinaire, conte philosophique,* magical realism, and, of course, science fiction and fantasy.[7]

[W]hat is another world made of? Chronotopography, the fictional fabulation of chronotopes, a laboratory of virtual modes of existing, is the main *locus* of this questioning. At the same time, fiction can also be a safe space in which to imagine the, sometimes spectacular, end of the current world.

Although chronotopographies are not limited to any specific genre, there is a growing feeling that realism cannot, at least for now, help in worlding new worlds. From the nineteenth century onwards, realism has become the predominant genre—maybe it would be more adequate to speak of structure or image of thought—over every other form of fiction. Preferring narration in the third person, linearity, standard language, and situations close to the reader's common sense, realism has the pretension of portraying the world such as it appears. Through a chronotopic approach, it is noticeable that realism often limits its creations to situations already given by hegemonic chronotopes—that is, times, spaces, and subjectivities firmly situated in capitalism, heteropatriarchy, racism, and so on. Of course, even non-realist fiction almost always reproduces these limitations, even in faraway galaxies and magical lands. However, minor genres such as the ones mentioned have more and more frequently become spaces for experimentations of all kinds that feed the political imagination.

Science fiction, more than any of the other so-called "genre fictions," has the potential to make latent futures emerge through the art of fiction. However, more often than not, what we find in science fiction stories is the reproduction of tropes like the conquest of the frontier, but now with lasers or in space. Even texts that seem more critical—the stories of H.G. Wells, for instance—often employ allegories that denounce the state of things but offer no alternatives to the imagination. However, there are narratives, especially by women, that not only denounce historical injustices, but also weave new forms of producing and combining times, spaces, and subjectivities, reshaping—concerning the latter—what race, gender, and even the human species can mean.

Le Guin's fabulation on gender in *The Left Hand of Darkness,* for example, remains to this day a challenge to hegemonic subjectivities by analyzing what a world could be like if human(like) sexuality functioned in a completely different manner. In Le Guin's narrative, the rethinking of sexuality does not simply entail different individual behaviours. Time is measured differently, according to the sexual cycles of the inhabitants of Gethen. Their architecture, their religions, and their family structures are all different because of this one radical leap of imagination. Despite its many qualities, however, this fiction would be much less meaningful to a collective of people not haunted by the gender binary. Its chronotopographical status is not universal; it is chronotopically situated.

Final Remarks

This essay is still only an initial development of the concept of chronotopography. My aim has been to establish its general outline and some of its applications, building on Mikhail Bakhtin's chronotope. First, I presented

the chronotope in some detail, following Bakhtin's words, drawing attention to the distinction between real or actual chronotopes, and represented, fictional, or literary ones. The former refers to historically experienced forms of temporality, spatiality, and subjectivity, while the latter is a fictional combination of these categories, created by one or more authors through their contact with real chronotopes. The chronotopic approach, either in fiction or in actuality, always invites us to question which temporalities are suggested in a spatiality, which subjectivities is it open to, and so on. This allows us to see more clearly the concrete unfolding of political imaginations, to stand by or stand against.

In the second section, I suggested that chronotopography is a special sort of fiction. It exists as a speculative take on this or that real chronotope, or as the invention of new chronotopes. It allows for not only critiquing hegemonic chronotopic forms, but also inventing new forms of shaping the world. Chronotopography is always a relational form of fiction, because it only happens as an encounter of many chronotopes in a given historical moment and place. It is something less than a complete entity, a lure for our feelings. If we are lured, we may enter into a reciprocal capture in which we will become something else. Once we open ourselves up to see these agencies, for they act upon us whether we acknowledge them or not, "we are truly dealing with the thousand and one sexes of the fictions that, at a given period, we are capable of" (Stengers, *Power and Invention* 137).

Finally, there is an evident political concern implied in the investigation of how the borders of chronotopes are established, especially hegemonic ones. For today, in the West, it is no longer only about who gets to rewrite the past or who will get to write the future. Even if the sides may not be all that clear, we are now at open war between those who would keep forcing the same fictions spawned in the same chronotopes onto others, demanding submission to certain conceptions of time, space, and subjectivity, and those who are looking for temporalities, spatialities, and subjectivities that will diverge us from our current path and maybe—hopefully—create the conditions for a dialogue with non-modern and non-human chronotopic experiences.

Notes

[1] One can argue that these thinkers did not intend to define these categories in these ways. Nevertheless, the modern definitions are a consequence of their works.

[2] This text was first written in 2016, in the aftermath of the coup that removed Dilma Rousseff from the presidency of Brazil. At the same time, other countries in Latin America were moving towards different types of far-right extremism. Since then, the pendulum has swung back.

[3] Despite having been written in the 1930s, the essay "Forms of Time and of the Chronotope in the Novel" was first published only in 1975.

[4] To Bakhtin, chronotopes have a motif, such as the motif of meeting—associated with the public square or the salon—or the motif of encounter—seen most often in the road. These aspects of chronotopes are relevant, but are beyond the scope of this essay.

[5] Since the writing of this text, much has changed for the better in the Anthropocene debate.

[6] We can think of Stengers' cosmopolitics, Latour's experimental metaphysics, Haraway's Chthulucene, Viveiros de Castro's description of Amerindian perspectivism, and Tsing's multispecies ethnography as powerful chronotopographies capable of simultaneously mapping and affecting chronotopic combinations.

[7] This is not to say that every text in these genres plays with time, space, and/or subjectivities.

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Unsettling the Homestead

KELLY KING

The artist, Kelly King, working on the braided rug component to the exhibit, *Unsettling the Homestead* (2017).

Unsettling the Homestead was an exhibit that examined settler colonialism in the Maritimes, including my personal genealogy and the Mi'kmaq histories of the Stewiacke Valley. This work came from research I conducted, which investigated the origins of my paternal grandmother's side of my family and how my ancestors came to arrive in Mi'kma'ki—what is now known as Nova Scotia.

My paternal grandmother, Kelly Banks, was born and raised in Stewiacke, Nova Scotia; she passed away before I was born. Being her namesake, my initial curiosity for this project began with her. I travelled to Nova Scotia to stay with family and learn more about her life along the Stewiacke River. My inquiries led me to the central region of Nova Scotia, extending all along the Shubenacadie River system, and to histories going as far back as the 1700s. During this research, I spent most of my time at various kitchen tables, collecting stories of the Banks family farm and the land around it. I heard stories of the Mi'kmaq who stayed on the banks of the Stewiacke River during my great-grandfather's time and of the interactions that my family had with them as far back as ten generations. Without the assistance of the Mi'kmaq of the region, or the land that my family was granted by the British Crown, my settler ancestors could not have thrived in Mi'kma'ki in the ways they did.

Mi'kma'ki has been inhabited since time immemorial by the Mi'kmaq, Maliseet, and Passamaquoddy people. It is a place of complex politics, treaties, trade relationships, and deep spiritual connections to the land. On top of larger colonial narratives of *terra nullius* (empty land) and the Doctrine of Discovery, settler history in Mi'kma'ki is—more often than not—void of stories of displacement, attempted assimilation, and extreme violence against these Indigenous nations. In my work, it was important for me to balance family narratives with the history of settler colonialism in Mi'kma'ki. Using autoethnography as a research method, I placed family stories into the historical context of colonization in Nova Scotia.

Beginning in the 1720s, the British entered into a series of Peace and Friendship Treaties with the Mi'kmaq, Maliseet, and Passamaquoddy nations. None of these negotiations of Peace and Friendship ever included the ceding of any Indigenous lands. Instead, they were meant to lay the groundwork for peaceful and mutually beneficial relations in the region. The British Crown was never granted the right to divide and give land to incoming settlers from other colonies. Therefore, my ancestors settled on land that was not theirs to settle; this implicates me in legacies of settler colonialism and violence on the land.

The exhibit, entitled *Unsettling the Homestead*, was modeled in the likeness of an East Coast kitchen. I wanted to recreate the intimate feeling of the kitchens where I conducted my research, learned these stories, and experienced the rich oral history of my family. I hoped to create a space where visitors could pour themselves a cup of tea, reflect on the family stories playing audibly through speakers throughout the space, and make connections to their own histories and family spaces. By repurposing crafts traditionally present in settler homes, such as braided rugs, cross-stitches, and quilts, I aimed to reframe these arts that have been passed down through generations and interrogate what it means to be a settler on Indigenous land.

A major aspect of my research was to look into the creation of braided rugs in Nova Scotia. Braided rugs can be found in most maritime homes, but their histories are much older than that of Nova Scotia. Settlers of New England began making them from old fabrics

when confronted with the harsh winters of the 'New World.' They repurposed worn-out clothing and other heavy fabrics, weaving them together into rugs that would, economically, keep cold drafts out of their homes. My Planter ancestors (New England settlers) would have brought this knowledge with them when they moved into the Stewiacke Valley. I began the process of making such a rug, to emulate the one that my Grandma Kelly made herself.

By unwinding several coils from the outer edges of Grandma Kelly's rug, I salvaged the old strands for my own work. Incorporating this old fabric was a long and arduous task of unbraiding her work, watching years of dirt fall from its weave, and finding holes in the fabric where the rug had been worn down by years of wear and tear. After hours of unbraiding, I was left with hundreds of feet of fabric strips, all with different textures, colours, and stories attached to them. They came from my Grandma's friends, neighbours, and family, and they took years for her to collect. I collected my own fabric from friends and family, including clothing from Grandma Kelly's other grandchildren, to weave together with hers.

By unbraiding, washing, and re-braiding her fabric, I was able to give new life to much of it. It was a process of re-strengthening the fabric and, by extension, re-strengthening the stories attached to it. This work became a metaphor for the re-telling of family stories: I was finding the holes in our stories, but by folding and sewing them together again, they were re-strengthened for future generations of our family. Creating this one long braid became a process of weaving my ancestors with our current family members; the three strands representing the past, present, and future. This meditative work allowed me to process much of the deep history that I was wrapped into during this research.

For the exhibit, I suspended the braid from the ceiling of the room and periodically moved it throughout the space to reflect the nature of oral histories that were playing in the kitchen. It was a way of acknowledging the biases within these stories and how they slightly change depending on the storyteller, time, and greater context. Oral histories have a tendency of moving and bending with their surroundings, impacted by the space they are within. I aimed to create a space that you could not enter without being touched, both emotionally and physically, by the stories. While listening and re-listening to these stories, I was able to put my reflections and thoughts directly into the weaving, combining modern stories with the older fabrics and deeper histories with fabrics from our current generation.

The act of braiding does not warrant hasty actions. Every crossing of fabrics must be thoughtful, gentle yet firm, calculated yet inquisitive. Every fabric must complement the ones it is being woven with, and they all must stagger in a way that looks seamless. With each motion, I learned more about my ancestors and became more confident in my ability to complete the arduous task. There is a gentle strength in braided rugging, both in the creation as well as the end product. There is a calmness in the action but a durability in the time and labour that the process demands.

Unsettling the Homestead aimed to recreate the feel of a Nova Scotian kitchen, while showcasing the intersecting histories and narratives of the land it is situated upon.

In addition to the braided rug, I also incorporated cross-stitching and quilting into the exhibit. To create the cross-stitch, I found examples of traditional cross-stitch designs and crafted my own image around the foundational aspects of traditionally designed cross-stitch "samplers." I noticed that these samplers almost always displayed the date and the name of a location, had a flowered border, and showcased a form of European settlement or presence. From these traditional samplers, I designed a cross-stitch pattern to emulate the layered histories of the land where the Banks farm stands.

Through conversations with my family, I learned about historically significant items found in and on the land around the Banks farm. My great-grandfather often found arrowheads while tilling the land, many of which my family still has. Neighbours of the Banks farm also found stashes of Acadian coins around their homes. Acadians purposefully buried these coins in strategic places within their farmlands just prior to their violent expulsion in 1755, in the hope that they could one day return and retrieve their savings. Very few, if any, were able to return to their original homes as it was another thirty years before Acadians were allowed to return to Nova Scotia, finding many of their settlements now occupied by American settlers and Loyalists.

Starting from the bottom and layering these histories vertically in the cross-stitch, a row of arrowheads is followed by a row of Acadian coins and stars. These items not only exemplify the physical layers of history of the land, they also represent waves of communities pushed from the land through processes of colonial imposition.

The next layer of the cross-stitch is the word "Sipekne'katik," which means "the place where the wild potatoes grow." It is the name of the Mi'kmaq political district where Stewiacke and Shubenacadie (its anglicized name) now stand, and it stretches across a large portion of inland Nova Scotia. Sipekne'katik is a very significant meeting place, trade route, and negotiating region due to its proximity to the Stewiacke and Shubenacadie tributaries. This river system is the only tidal river system in Nova Scotia that runs directly across the

Sendiment or Settlement (2017)
Counted Cross-stitch sampler
11 x 20''

province, from the Bay of Fundy to the Atlantic Ocean, making it an ideal location to hold political negotiations, trade, hunt, fish, and gather with other communities.

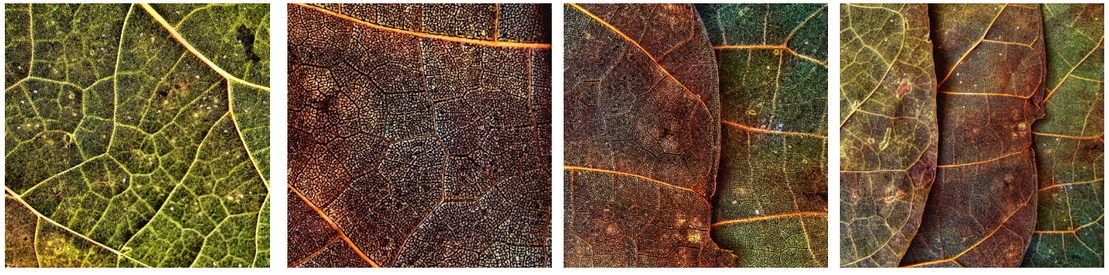
Above the place name are layers of the Banks farm. Here, horses, cows, corn, and a replica of the Banks farmhouse are presented, with the date "1881" stitched at the top. This is the year when my great-grandfather was officially signed as the owner of this land, which the British Crown had stolen and passed on to settlers through overt colonial policies. The Stewiacke tidal river is represented in front of the Banks farmhouse, as a prominent fixture in both Indigenous and settler relationships and dependence on the land.

Lastly, the flowered border of the piece is that of the s'gepn—the wild potato plant that the territory is named after. The wild potato was a key staple in Mi'kmaq diets and still grows in marshy regions of the Shubenacadie tributary.

The third and last artistic element of *Unsettling the Homestead* was my great-grandmother's quilt, hung with a number of family photos placed in its gridded pattern. The photos displayed three generations of the Banks family enjoying daily life on the homestead. I attached these black and white photos of my ancestors with one small alteration: the land in each photo was animated with colour. I wanted to show how, if you actually unsettled the homestead, the land would remain virtually the same. This piece also commented on who is missing from the images. Narratives of *terra nullius* were prominent in both North America and Europe during the colonization of Mi'kma'ki, declaring that this 'new land' was empty of inhabitants—before colonial powers encroached into the region. It was the violent beginning of the attempted erasure of Indigenous peoples from the land that is now called Canada. Giving agency back to the land also warranted the inclusion of plants that are integral to the area. Once again, s'gepn was represented in this work, weaving its way up the settler home and along the Stewiacke River. The image of s'gepn turned into a symbol of the histories that are more profoundly rooted in that place than those of my ancestors. As was the case with each work of art in the exhibit, the aim of the edited farm photos was to encourage the viewer to reconsider the unsettling nature of the imagery.

Utilizing traditional settler crafts, *Unsettling the Homestead* provided familiarity for many people who visited the exhibit, but it also created space where people could feel unsettled in the comfortable. The aim of this project was to disturb notions of planting, homesteading, and settling by investigating and critiquing my personal positions within these narratives. By combining traditional English art forms with modern multi-media art forms, the exhibit worked to braid stories and experiences from multiple generations in order to critique ideas of what it means to clear land, homestead, and settle.

Our Home on Native Land (2017)
Edited photographs affixed to hand-stitched quilt. Quilt made in 1915 by artist's great-grandmother Edith Augusta Banks.
70" x 88"



Vascular Memory

OONAGH BUTTERFIELD

These images are part of a larger project that explores multispecies relations in city space; how we humans can, and do, and must practice shifting our attention in acknowledgment of the others with whom we share land and our homes. For me, this shift in attention necessitates a kind of deeply reflective practice—deliberate and performative at first, but soon an embodied memory.

Using macro photography, these pieces reflect one way of attending to a different scale and tempo of multispecies life. Here, I attune visually to the *Catalpa* leaf: a non-native tree transplanted to Toronto, for ornamental purposes. Importantly, attuning to the *Catalpa* leaf also shifts my conception of time and futurity. The present future is no longer solely anthropocentric but, rather, *planthropocentric* as well.[1]

We hold stories and memories in the tissues of our bodies, and these fleshy materials that compose us also create the patterns of our sensing and doing. Our tissues are sources of knowledge and of retention, and how they re-act tends to inform how we are able to relate. I believe this to be true of human-animals, and I believe it to be true of plants.[2] If our bodies are capable of carrying so much experience and expression, what then might other multispecies bodies be capable of holding onto? What patterns or stories might other tissues retain or carry into the composition of the future?

Notes

[1] For more on plant-sensing, and the notion of the "planthropocene," please see the work of Natasha Myers (https://natashamyers.wordpress.com/); in particular, "How to grow livable worlds."
[2] See Gagliano et al.

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Buffalo in Makhóšica / Badlands National Park, colonially South Dakota, August 2019. Photograph by Mandy Bunten-Walberg.

Storying Futures of the Always-Already Extinct

Challenging Human Exceptionalism; Exploring Animal Survivance

BENJAMIN J. KAPRON

Native storiers of survivance are prompted by natural reason, by a consciousness and sense of incontestable presence that arises from experiences in the natural world, by the turn of seasons, by sudden storms, by migration of cranes, by the ventures of tender lady's slippers, by chance of moths overnight, by unruly mosquitoes, and by the favor of spirits in the water, rimy sumac, wild rice, thunder in the ice, bear, beaver, and faces in the stone. (Vizenor, "Aesthetics of Survivance" 11)

Between monstrous cityscapes like those in *Blade Runner* and desolate wastelands in *Mad Max: Fury Road*, at a cursory glance mainstream popular culture imaginings of the future are largely bereft of all but the most inhospitable aspects of the natural world.[1] The stories that people tell about the future are often stories of human-only worlds. The destruction of the natural world might be intended to be part of the cautionary tales underlying these visions of the future—these depictions tell people that we need to act now to protect the planet if we are to avoid such dystopian futures. However, in presenting that it is up to humans to save the Earth from extinction, these stories posit that humans are exceptional to all other species in our capacity to impact the future. Any capacity that other species might have to preserve their own futures is ignored and precluded. These stories say that, without human intervention, other animals are inevitably—and therefore, always-already—extinct.[2]

Hollywood storytelling aside, the discourse that animals are inevitably going extinct—unless they are saved by humans—prevalently and problematically carries over to critical environmental studies. In this paper, I discuss the discursive violence of denying animal futures; highlight the subtle pervasiveness of human exceptionalism that denies animal futures within critical environmental studies; contend that this human exceptionalism undermines critical environmental projects for ethics and justice; and propose and explore how extending Gerald Vizenor's concept of survivance to animals may lift understandings of animals out of human exceptionalist trappings regarding agency and futurity.

This paper is a response to pervasive human exceptionalism in critical environmental studies, and therefore, I open it with an overview of human exceptionalism. Readers who are already knowledgeable of human exceptionalism will likely find nothing novel in this section, but I feel it is an important section to include for readers who have not studied human exceptionalism, and as a reminder for those who have.

Following this overview of human exceptionalism, I turn to examining the discursive violence of denying animal futures. There continues to be widespread discourse that Indigenous peoples are on the verge of extinction. Indigenous scholars have described how such foreclosure of Indigenous futures enacts discursive violence against Indigenous peoples, which, in turn, supports physical and material violence being committed against them. I look to this literature, on the violence of denying Indigenous futures, to reveal the violence of denying animal futures.[3]

I end this section by examining how animal futures are denied in David Abram's *The Spell of the Sensuous* and Mick Smith's "Ecological Community, the Sense of the World, and Senseless Extinction." Both of these texts offer significant theoretical contributions to critical environmental studies, including providing theoretical challenges to human exceptionalism; however, they both center humans' roles in impacting the future while omitting other species' agency to impact the future. Therefore, these texts are useful examples of the insidiousness of human exceptionalism in critical environmental scholarship.

In the final section of this paper, I explore how extending Gerald Vizenor's concept of survivance to animals may uphold animal agency and futurity. Vizenor uses the term 'survivance' to speak of Indigenous peoples' continuous agential survival against settler colonialism. Extending survivance to animals requires expanding survivance beyond Vizenor's tendency to focus on Indigenous literature: understanding that survivance is not a practice exclusive to Indigenous peoples, and that survivance can be practiced through embodied presence. While camping in Makȟóšiča[4] / Badlands National Park[5] in August of 2016, I was surprised, due to my own ignorance, to find buffalo[6] still living there. The story I knew was that the buffalo had gone extinct. Reading Vizenor's *Hiroshima Bugi* at the time inspired me to think of the continuing survival of the buffalo as agential survivance undertaken by the buffalo—the buffalo are not merely passively continuing to exist, or preserved only through human actions. I assert that extending the concept of survivance to animals can inspire understandings of animals that challenge human exceptionalism, uphold animal agency, and envision transformative futures where all animals—human and otherwise—might survive with ethics and justice.

[T]he very idea of 'the human' arises more through philosophical posturing than empirically-found differences between humans and other species.

The Context of Human Exceptionalism

Believing that *only* humans are able to combat extinction is an example of human exceptionalism: the discourse that humans are somehow exceptional to all other species—not merely different, but uniquely different. Human exceptionalism is prominent in dominant Western understandings, and remains all too prominent in Western critical environmental studies. However, ideas of human exceptionalism do not hold up well to interrogation. Here, I review some of the literature on human exceptionalism—beginning with work by Giorgio Agamben, and moving through insights from Matthew Calarco, Cynthia Willett, and several scholars' works on animal agency—to ensure that readers have some familiarity with human exceptionalism, in order to better understand certain developments in this paper, and in a broader pursuit of challenging human exceptionalism.

At the base of human exceptionalism is an understanding that humans are uniquely different from all other species; however, Giorgio Agamben examines how the very idea of 'the human' arises more through philosophical posturing than empirically-found differences between humans and other species. Agamben coins the term 'anthropological machine' to highlight how, throughout Western philosophy, humans have been continuously *made distinct* from other animals: "[t]he separation of human life from animal life . . . cannot just be read off of the natural world, as if human beings arrive into the world already neatly distributed into various categories and attributes . . . It is the machine itself that creates, reproduces, and maintains the distinction between human life and animal life" (Calarco 53–54).

Agamben relays how Carl Linnaeus, "the founder of modern scientific taxonomy" (23), "hardly knows a single distinguishing mark which separates man from the apes, save for the fact that the latter have an empty space between their canines and their other teeth" (Linnaeus qtd. in Agamben 24). In his taxonomies, Linnaeus finds himself unable to show "a generic difference between ape and man which is consistent with the principles of natural history" (Agamben 26).[7] Beyond physical traits, language has been proposed as the distinguishing characteristic of humans; "but [language] is not a natural given already inherent in the psychophysical structure of man; it is rather, a historical production . . . If this element is taken away, the difference between man and animal vanishes" (Agamben 36). Moreover, "[u]p until the eighteenth century, language . . . jumps across orders and classes, for it is suspected that even birds can talk" (Agamben 24). Tool-use was also presented as a possible distinguishing characteristic of humans; however, animals including primates, birds,

and cephalopods have since been found to use tools.

Considering evolutionary theory, it is unreasonable to allege that capacities arose in humans alone that now make us somehow *exceptionally* different to all other species. As Matthew Calarco writes, "[o]ne of Darwin's chief insights is that differences between humans and animals are best explained as differences of degree rather than of kind. There are no huge leaps, abysses, or breaks between species; rather, humans, animals, and all life-forms are participating in the same story of life's evolution" (12). If humans are exceptional to other species, such exceptionalism would have to have arisen through some process other than evolution. However, Cynthia Willett asserts that even "[t]he usual lineup of metaphysical suspects for shoring up human superiority—impartial reason, moral or spiritual freedom, and self-awareness—have been used to gravely overstate our human capacities while obscuring genuinely mind-bending powers that cross species barriers" (101). Willett references work by Barbara Smuts and Frans de Waal to showcase that humans are not the only species to have religious and ethical experiences. Smuts witnesses baboons stopping to sit by waters, and describes how "[t]he still waters seem to unlock for these primates a sacred experience of unity with nature not unlike what might be found in the meditative practices of Buddhists and other spiritual communities" (Willett 102). And, Frans de Waal reports how Kuni, a bonobo living in the Twycross Zoo in England, sought to help a bird who had been injured and fallen into Kuni's enclosure, to fly out of the enclosure—a show of interspecies compassion that also reveals Kuni understanding that the bird has different abilities and ethical needs than herself. In these examples, capacities that might be used to claim a sociopolitical or spiritual human exceptionalism—rather than an evolutionary human exceptionalism—are also shown to not be uniquely human. Overall, regarding the anthropological machine, Calarco summarizes: "[t]he issue here is not simply that all of the traditional ways of cleanly distinguishing human beings from animals have been compromised—this is obviously very much the case. Rather . . . the distinctions have been undermined so radically that the very prospect of trying to re-establish them along other lines no longer seems plausible" (51).

Within the discourse that only humans can combat extinction, agency is commonly posited as a uniquely human trait.[8] Other species of animals continue to be dominantly understood as acting merely through instinct: mechanistically *reacting* to ways that they are acted upon and conditions they find themselves in—though Brian Massumi rigorously examines how creativity is a necessary aspect of instinct, revealing flaws even in this idea that instinct is mechanistic reaction. Numerous accounts showcase animals acting with purpose to alter the conditions of their lives. Frans de Waal's study of chimpanzees in the Arnhem Zoo reveals conspiratorial political societies operating via alliances and deception. John Vaillant relays the story of a tiger who turned to hunting humans, likely after being the unsuccessful target of poachers. This was a breakdown of human-tiger relations in the taiga region of Russia, where the agency and authority of tigers is usually so well understood and respected that "the possibility of a person getting attacked—much less eaten—by a tiger was, literally, laughable—like getting hit by a meteorite" (Vaillant 124). In *Fear of the Animal Planet*, Jason Hribal provides narrative accounts of cetaceans, elephants, pinnipeds, primates, and tigers escaping from captivity and/or rampaging through zoos and circuses. As Jeffrey St. Clair expounds in his introduction to the book,

> Hribal's heroic profiles in animal courage show how most of these violent acts of resistance were motivated by their abusive treatment and the miserable conditions of their confinement. These animals are far from mindless. Their actions reveal memory not mere conditioning, contemplation not instinct, and, most compellingly, discrimination not blind rage. Again and again, the animals are shown to target only their abusers, often taking pains to avoid trampling bystanders. Animals, in other words, acting with a moral conscience. (16)

But despite the logical and empirical flaws of human exceptionalism, it remains a dominant discourse and understanding in Western society. Moreover, challenging human exceptionalism is not merely philosophical 'correction'—bringing discourse into alignment with an empirical ontology where humans are not exceptional to other species. Human exceptionalism has ethical implications. Positioning humans as exceptional to other species provides a basis for denying ethical consideration to other species, suggesting that part of how humans are exceptional is *that we deserve ethical consideration*.[9] Therein, human exceptionalism enables violence to be committed against animals, including via understandings that animals are unable to act for their own futures—that only humans are able to combat extinction.

Within the discourse that only humans can combat extinction, agency is commonly posited as a uniquely human trait. Other species of animals continue to be dominantly understood as acting merely through instinct

Damage-Centered Discourse: Violence in Denials of Futurity

As mentioned, dominant discourse continues to position Indigenous peoples as being on the verge of extinction. Scholarship on how this discourse enacts violence against Indigenous peoples reveals how the discourse that animals are unable to act for their own futures is similarly violent.

Glen Sean Coulthard writes,

> A settler-colonial relationship is one characterized by a particular form of *domination*; that is, it is a relationship where power—in this case, interrelated discursive and nondiscursive facets of economic, gendered, racial, and state power—has been structured into a relatively secure or sedimented set of hierarchical social relations that continue to facilitate the *dispossession* of Indigenous peoples of their lands and self-determining authority. (6–7; Coulthard's italics)

Lorenzo Veracini provides an entire alphabet of "transfer," which outlines different forms of those discursive and nondiscursive facets of dispossessing power, including:

> Narrative transfer (II): when a "tide of history" rationale is invoked to deny legitimacy to ongoing indigenous presences and grievances. This transfer focuses on "fatal impacts," on indigenous discontinuity with the past, and typically expresses regret for the *inevitable* "vanishing" of indigenous people. If they have *had* their last stand, if their defeat is irretrievably located in the past, their activism in the present is perceived as illegitimate. An emphasis on an unbridgeable discontinuity between indigenous past and postcolonial present, between an indigenous golden age and contemporary decadence, can then be used to dismiss an indigenous insurgency that must no longer subsist. Indigenous survival is thus transferred away, foreclosed. (41–42; Veracini's italics)

To perpetuate settler colonial *dispossession*, Indigenous peoples are sometimes seen/said to be people who were colonized in the past and are now always-already extinct. As Thomas King writes, "North America has decided that Live Indians living today cannot be genuine Indians . . . Live Indians are fallen Indians, modern, contemporary copies, not authentic Indians at all, Indians by biological association only" (64–65). "Dead Indians are dignified, noble, silent, suitably garbed. And dead. Live Indians are invisible, unruly, disappointing. And breathing. One is a romantic reminder of a heroic but fictional past. The other is simply an unpleasant contemporary surprise" (King 66). Rights and claims of currently living Indigenous peoples are, at times, denied on the basis that these peoples are not 'truly Indigenous,' allowing for the maintained "*dispossession* of Indigenous peoples of their lands and self-determining authority" (Coulthard 7; Coulthard's italics). Here, the discourse that Indigenous peoples are unable to ensure their own survival is used to enact continued colonial violence upon Indigenous peoples.

[T]he discourse that Indigenous peoples are unable to ensure their own survival is used to enact continued colonial violence upon Indigenous peoples.

The discourse that Indigenous peoples are unable to ensure their own survival might be described as 'damage-centered.' Eve Tuck uses the term "damage-centered" to describe how research conducted in Indigenous communities often tends to focus on the historic and contemporary problems that these communities face, often with the hopes of improving the lives of Indigenous peoples, but ignoring positive aspects of Indigenous lives—such as the strength and resilience made evident by Indigenous peoples' continual survival against settler colonialism—and thereby presenting Indigenous peoples as overall being damaged. "This kind of research operates with a flawed theory of change: it is often used to leverage reparations or resources for marginalized communities yet simultaneously reinforces and reinscribes a one-dimensional notion of these people as depleted, ruined, and hopeless" (Tuck 409; original italicized). Even if the research carries ethical intentions, the discourse that it uses perpetuates a harmful understanding of Indigenous peoples.

Critical environmental studies can tell similarly damage-centered stories, such as by denying that animals might possess agency, including agency to act against their own extinction. David Abram's book *The Spell of the Sensuous* is a noteworthy text for understanding human interrelationality with the natural world, arguing that "we are human only in contact, and conviviality, with what is not human" (ix). Abram provides phenomenological accounts of how diverse aspects of human experience including language, emotions, spirituality, and thought are tied to human interrelationships with diverse parts of nature. In doing so, he recognizes that nonhuman animals, and other nonhuman beings and entities, have diverse powers and abilities. However, when Abram turns to responding to current ecological crises, he proposes a damage-centered approach where he omits discussing whether or how other beings might be able to preserve their own futures. Abram calls for (Western) humans to remember and revitalize our relations with the natural world, contending that current ecological crises are the result of (Western) human's forgetting our interrelatedness.[10] This remembering and revitalization is a human-centered project.

> We have forgotten the poise that comes from living in storied relation and reciprocity with the myriad things, the myriad *beings*, that perceptually surround us.
>
> Only if we can renew that reciprocity . . . only then will the abstract intellect find its real value. . . . If we

> do not soon remember ourselves to our sensuous surroundings, if we do not reclaim our solidarity with the other sensibilities that inhabit and constitute those surroundings, then the cost of our human commonality might be our common extinction. (Abram 270–271; Abram's italics)

Abram suggests that humans alone can and must save the world—that, in terms of impacting the future, the natural world is "*depleted, ruined and hopeless*" (Tuck 409; Tuck's italics). Abram goes as far as dedicating *The Spell of the Sensuous* "to the endangered and vanishing ones" (v). By providing no description of who these endangered and vanishing ones are, this dedication insinuates that the whole of nonhuman nature is endangered and/or vanishing, and that being endangered and/or vanishing are—now—fundamental characteristics of nature.

In a 2013 paper, "Ecological Community, the Sense of the World, and Senseless Extinction," Mick Smith explicitly addresses extinction in order to challenge human exceptionalism. Smith examines different types of loss that are experienced when a species goes extinct, including loss "of the innumerable ways in which beings become materially manifest in the world such that others sense their presence" (22), loss "of their unique contributions to and effects upon others" (22), loss of "(bio)semiotic potential, where biosemiosis is understood as the production and communication of 'significance' in a very broad sense" (22) and other losses. For Smith, human exceptionalism "regards human communities as distinguished by an ethics and/or politics in which no beings other than humans can possibly participate" (Smith 24). And considering these different forms of loss, and how they are similar to the losses experienced when a loved one dies, Smith concludes that humans are not truly part of exceptional human-only communities, but wider ecological communities: "as we think about these relations and the roles they occupied we realise that there is actually no way of ever summing up the constitutive roles they played in sustaining and/or transforming the community of which they formed a part" (Smith 23). Similar to Abram's text, Smith's text is noteworthy for challenging human exceptionalism; however, also similar to Abram, Smith seems to subsequently take up his challenge to human exceptionalism in a way that perpetuates human exceptionalism. Smith states that "[p]erhaps, one might even say, the realisation of ecological community only begins to make sense through the senseless event of extinction . . . The ecologist (in a more than scientific sense) is someone who is touched by this loss in such a way as to mourn the toll of extinction instituted by human exemptionalism and exceptionalism" (29). I can empathize with this claim; however, it proposes that animals need to be going extinct for humans to connect with them, carrying that other species are necessarily going extinct and that humans—alone—can prevent extinction, once we understand ourselves to be in ecological community.

As noted, both of these texts do offer significant theoretical contributions for challenging human exceptionalism, but I am wary about how both Abram and Smith present other species as essentially going extinct, and present *only* humanity as having the agency to preserve a future against extinction. Even if only by omission, these texts uphold a discourse that other species have no capacity to ensure their own survival. Similar to Indigenous peoples, in denying animals a future they are presented as damaged—"depleted, ruined, and hopeless" (Tuck 409; original italicized); "vanishing and endangered" (Abram v); always-already extinct. And this damage-centered discourse allows for the ethical needs of animals to be ignored. What is the point of providing ethical consideration to something that is—inevitably going—extinct? Therefore, although Abram and Smith are working to develop more ethical and just relations with animals, and other parts of the natural world, the human exceptionalism of suggesting that only humans can challenge extinction enacts discursive violence against animals, limiting Abram's and Smith's projects.

Opening Frameworks for Animal Futurity: Exploring Animal Survivance

To challenge damage-centered research in Indigenous communities, Tuck writes that "[w]e [Indigenous peoples] can insist that research in our communities . . . does not fetishize damage but, rather, *celebrates our survivance*" (422; Tuck's italics). Survivance is a concept particularly promoted by the Anishinaabe writer and scholar Gerald Vizenor. As introduced, I began considering survivance as an intriguing framework for upholding the agency and futurity of animals after I found myself unexpectedly camping beside still-living buffalo, in Makȟóšiča.

Reflecting the dynamic nature of survivance, I have not found that Vizenor ever defines survivance straightforwardly. "'Survivance' . . . is not merely a variation of 'survival,' the act, reaction, or custom of a survivalist. By 'survivance' he means a vision and vital condition to endure, to outwit evil and dominance, and to deny victimry"[11] (Vizenor, *Hiroshima Bugi* 36).

> The theories of survivance are elusive, obscure, and imprecise by definition, translation, comparison, and catchword histories, but survivance is invariably true and just in native practice and company. The nature of survivance is unmistakable in native stories, natural reason, remembrance, traditions, and customs and is clearly observable in narrative resistance and personal attributes, such as the native humanistic tease, vital irony, spirit, cast of mind, and moral courage. The character of survivance creates a sense of native presence over absence, nihility, and victimry. (Vizenor, "Aesthetics of Survivance" 1)

[S]urvivance speaks of active survival. Indigenous peoples have not merely continued to passively survive against violences of colonialism; Indigenous peoples continuously undertake to act in ways that ensure their survival

As I conceptualize it, survivance speaks of active survival. Indigenous peoples have not merely continued to passively survive against violences of colonialism; Indigenous peoples continuously undertake to act in ways that ensure their survival, at times even playing into the disappearance of Indigenous presence under settler colonial imposition in order to continue their stories, storying, and sovereignty. "Native American Indians have resisted empires, negotiated treaties, and as strategies of survivance, participated by stealth and cultural irony in the simulations of absence in order to secure the chance of a decisive presence in national literature, history, and canonry" (Vizenor, "Aesthetics of Survivance" 17). Survivance showcases agency.

As I saw the buffalo of Makȟóšiča, agency was evident in their survival. These buffalo are continuing to survive *despite* their reduced numbers; *against* the imposition of fences, roads, campgrounds, vehicles, etc.; and *without* access to the full extent of their historic territories or the strength of their historic communities. And still they survive—still they maintain their communities, and produce and raise future generations. And their numbers are increasing, with the Wildlife Conservation Society reporting that there are now 500,000 living buffalo, following a historic low of fewer than 1,000 in the late 1800s—although most of the surviving buffalo live on private ranches, to be killed for humans to eat.

Although Vizenor, and many people who write after him, focus on Indigenous peoples' survivance, survivance should not be thought of as something that only Indigenous peoples can undertake.

> Survivance stories may begin within an indigenous narrative tradition, but they do not stop at cultural barriers proclaimed by the guardians of narrative authenticity. . . . Hallmarks of this narrative ethos of resistance include an embrace of syncretic openness and ironic welcome to all compatriot storytellers, whatever their culture, who face the imminence of human death with self-knowledge and even a smile. (Lockard 211)

Vizenor utterly rejects the homogenization of diverse Indigenous cultures and nations into the figure of the 'Indian,' recognizing this homogenization to be a colonial act that attempts to disappear Indigenous presences and histories: "The *indian* has no native ancestors; the original crease of that simulation is Columbian . . . . The *indian* is a simulation, the absence of natives; the *indian* transposes the real, and the simulation of the real has no referent, memories, or native stories" (*Fugitive Poses* 15; Vizenor's italics). Consequently, survivance does not arise through some essential Indigenous trait or tradition, and understanding that it does deadens survivance's creativity and active agency:

> The idea of tradition is used in this case as a romantic vision of precontact Native peoples. Vizenor implores that we "set aside the word *tradition*, as in '*indian* traditions,' because it suggests that trickster stories, irony, and the originary deception of language, is a cultural and determined practice. . . . Tradition, as you know, is a tamer, not a liberator." (Vizenor and Lee 60 qtd. in Gamber 231; Gamber's italics)

[I]f there is no reason to hold survivance to cultural barriers, then . . . I see no reason to hold survivance to species barriers either.

Promoting understandings that animals are undertaking acts of survivance to continue to survive amid (anthropogenic) ecological crises would overcome the damage-centered human exceptionalism of suggesting that only humans have the agency to challenge extinction. And, if there is no reason to hold survivance to cultural barriers, then—with an eye to the aforementioned challenges to human exceptionalism—I see no reason to hold survivance to species barriers either. At the time of writing, I have not found that Vizenor explicitly discusses animals as being able to undertake acts of survivance, though he alludes to it, including through kabuki-performing dogs and Ainu bears in *Hiroshima Bugi*. And, in *Fugitive Poses*, Vizenor writes: "the bear is the mighty healer of human separation in a narrative. That monotheistic severance of men over women, humans over animals, civilization over savagism, is never closure; bears endure in nature, and in the stories of humans, *as bears must as authors*" (136; my italics).

Vizenor does explicitly discuss the role of animals in Indigenous peoples' stories of survivance: where Indigenous cultures recognize human interrelatedness with animals—rejecting human exceptionalism—animal figures in Indigenous stories can showcase Indigenous presence. "Native stories must create a natural union of authored animals on a tricky landscape of human and animal survivance—the survivance of humans in the literature of animals" (Vizenor, *Fugitive Poses* 135–136).

Much of Vizenor's work focuses on how Indigenous survivance is made present in Indigenous literature and storytelling. This may appear to create a hurdle for expanding survivance to animals, as it is difficult for humans to access the literature and stories of other animals. However, where survivance is "a sense of . . . presence" (Vizenor, "Aes-

thetics of Survivance" 1), it does not need to manifest through storytelling. After all, "[s]urvivance is a practice, not an ideology, dissimulation, or a theory" (Vizenor, "Aesthetics of Survivance" 11). Presence can be embodied—lived: such is the case with the buffalo, and other animals.

Vizenor repeatedly discusses the Yahi man Ishi as showcasing Indigenous survivance, and Ishi does so in an embodied way. Ishi—whose name was given to him by the anthropologist Alfred Kroeber, because he refused to ever share his real name or even nicknames—was a Yahi man who, between 1911 and his death in 1916, "lived and worked for five years in the museum of anthropology at the University of California" (Vizenor, "Aesthetics of Survivance" 4). Theodora Kroeber recounts how after Ishi was "found naked, emaciated, and lost outside Oroville, a mining town on the Feather River in northern California . . . the sheriff had put [Ishi] in jail not knowing what else to do with him since no one around town could understand his speech or he theirs" (81). "Within a few days the Department of Indian Affairs authorized the sheriff to release the wild man to the custody of [Alfred] Kroeber and the museum staff" (Kroeber 81). Ishi enacted survivance through his refusal to give up his cultural understandings and practices even as he accepted his new life in the museum: "Ishi never lost the sense of his own identity. He always knew who he was: a well-born Yana to whom belonged a land and Gods and a Way of Life" (Kroeber 82).

> The Bureau of Indian Affairs sent a special agent to advise Ishi that he could return to the mountains or live on a government reservation. Kroeber writes that Ishi "shook his head" and said through the interpreter that he would "live like the white people from now on. I want to stay where I am. I will grow old here, and die in this house." And by that he meant the museum. Ishi was clearly a native of survivance. (Vizenor, "Aesthetics of Survivance" 4–5)

Storytelling was an aspect of Ishi's survivance, but not the only aspect. The way that he told stories seems as important to his survivance, or even more important, than the stories themselves:

> Ishi was at "ease with his friends," wrote Theodora Kroeber. He "loved to joke, to be teased amiably and to tease in return. And he loved to talk. In telling a story, if it were long or involved or of considerable affect, he would perspire with the effort, his voice rising toward a falsetto of excitement." His stories must have come from visual memories, and he should be honored for more than his stories, his humor, and survivance: he should be honored because he never learned how to slow his stories down to be written and recorded. (Vizenor, *Manifest Manners* 135–136)

Buffalo in the Pahá Sápa / Black Hills, colonially Custer State Park, South Dakota, August 2019. Photograph by Mandy Bunten-Walberg.

Ishi's survivance was lived: lived Yahi presence in a museum, against the backdrop of violent settler colonialism. So too, even if animals cannot readily share their written or oral stories of survivance with us, they can make their survivance known through lived presence.

It was the—unexpected—presence of buffalo that caused me to think of their continued survival as an example of survivance. And seeing the buffalo's continued survival as an enactment of survivance is, to me, a more ethical and just way of understanding them. Jim Cheney and Anthony Weston propose that, when considering the natural world, there needs to be a flip in how ethics are conceived. A typical Western philosophical approach to ethics entails determining some ground that makes a being deserving of ethical consideration—such as the possession of reason—and incrementally expanding the purview of where ethical relationships ought to exist by discovering that additional beings possess this ethically-defining criterion. Cheney and Weston describe this conception of ethics as "epistemology-based ethics": you need to know what something is in order to determine whether it is deserving of ethics.

Considering the diversity of the natural world, and the cacophonous[12] mass of violent unethical relations and understandings that exist in the modern world, such an incremental approach does not seem like an effective or apt pathway for building ethical and just relationships. Looking to Indigenous understandings of ethics for inspiration, Cheney and Weston propose that instead of knowing 'things' in order to determine whether they are deserving of ethics, we need to start from ethics, and come to know the world *through ethics*. Instead of epistemology-based ethics, we need ethics-based epistemology:

> On the usual view, for example, we must first know what animals are capable of, then decide on that basis whether and how we are to consider them ethically. On the alternative view, we will have no idea of what other animals are actually capable—we will not readily understand them—until we *already* have approached them ethically—that is, until we have offered them the space and time, the occasion, and the acknowledgment necessary to enter into relationship. Ethics must come *first*. (Cheney and Weston 118; Cheney and Weston's italics)

Extending survivance to animals calls on people to be open and responsive to diverse animal agencies, presences, and futurities.

Within such a framework, even my prior efforts to showcase animal agency in order to challenge human exceptionalism follow the wrong trajectory. Instead of trying to determine *how* animals might be deserving of ethical consideration, I ought to be giving them the time and space to show me how to be in ethical relationship with them. Understanding animals through a lens of survivance contributes to this change in ethics. There are not firm rules on what ought to be considered acts of survivance. Extending survivance to animals calls on people to be open and responsive to diverse animal agencies, presences, and futurities.[13]

My intention is not to disregard the reality of anthropogenic extinctions, or to excuse political inaction on anthropogenic climate change with claims that 'animals will preserve their own futures.' There is an historical and political reality to anthropogenic extinction, which humans have an ethical responsibility to attend to. However, the discursive violence of claiming that *only* humans can prevent extinction, or otherwise impact the future, must be acknowledged and addressed.

Close to Makȟóšiča, informative displays at sites such as Custer State Park and Wind Cave National Park tell stories of the continued survival of buffalo; however, these displays give little credit to the buffalo's own efforts to survive and instead focus on human endeavours to protect buffalo. Telling the story of the buffalo through the lens of survivance would maintain that these buffalo can continue to survive without relying on human intervention, and would reject that these buffalo remain on the verge of inevitable extinction. Survivance upholds animal futures. Moreover, animal survivance also upholds the possibility of transformative futures for humans. The slaughter of buffalo, which led to my belief that they were extinct, was a colonial act: colonial agents understood that some Indigenous nations' ways of living and being were deeply interrelated with buffalo, and so, they believed, if the buffalo were killed off then it would be easier to dispossess these Indigenous nations of their lands and ways of life. Describing the slaughter of buffalo as part of his *Shame and Prejudice: A Story of Resilience* art exhibition, Kent Monkman writes:

> [S]lowly we realized that it wasn't only for sport, the soldiers knew we couldn't live without the buffalo, and they were right. Once so numerous, it took several days for a herd to pass, they were now almost entirely gone and our people were starving. It was one more way they tried to make us disappear, but the buffalo came back, and we never left. (15)

While the continued survival of animals is significant in and of itself, and is important for achieving ethics and justice for these animals, the continued survival of animals also provides for ways of living and being where humans are interrelated with other animals, and other aspects of nature. Other species need to survive if humans are to have futures beyond or outside of our current ecological crises and human exceptionalist understandings. Telling stories that they can survive, that they are not inevitably going extinct, seems like an important step on the path to making those futures realities. As Richard Simonelli writes:

> The return of *tatanka* to Native lands is an act of generosity on the part of the buffalo themselves. . . . The respect we offer the buffalo may foretell how sincere and lasting our relationships can be with one another. (23)

Notes

[1] In this paper, I use "natural world" in a similar sense to Abram's "more-than-human world," to refer to the interrelational world of humans, other animals, plants, fungi, rocks, dirt, waters, airs, et cetera (see Harris 41–42, this volume). While Abram's term works to situate humans as interrelated with these other beings and elements, it also continues to center humans. Therefore, I do not use "more-than-human world" in this paper, when my focus is on challenging human exceptionalism in critical environmental studies.

[2] As I will mention later, this paper should not be taken to disregard the reality of anthropogenic extinctions, or excuse political inaction on anthropogenic climate change with claims that 'animals will preserve their own futures.' There is an historical and political reality to anthropogenic extinction, which humans have an ethical responsibility to attend to. Nevertheless, this ethical responsibility does not mean that humans are exceptionally able to prevent extinction or otherwise impact the future.

[3] Billy-Ray Belcourt calls for a decolonial animal studies that "engage[s] with a politics of animality that . . . is accountable to animal subjectivities and futurities outside settler colonialism *and* within a project of decolonization" (8; Belcourt's italics). In an effort to contribute to this project, I look to Indigenous and decolonial scholarship to inform my critique of denying animal futures and to explore an understanding of animal agency and futurity, via Vizenor's concept of survivance.

[4] Lakota place names are taken from Engel.

[5] Oglala Lakota territory. Colonially South

Dakota. Part of the park is on Wazí Aháŋhaŋ Oyáŋke (Pine Ridge Reservation), though not where I was camping.

[6] American buffalo (*Bison bison*) are considered bison, not true buffalo, within dominant scientific taxonomy. However, many Indigenous writers refer to *Bison bison* as "buffalo," so I use the term "buffalo" in this paper, following their lead.

[7] Although Agamben turns to Linnaeus for an authority on biological classification—and I do as well, when quoting Agamben—I must note that Linnaeus contributed to pseudoscientific justifications for racism. Alongside classifying animals and plants, Linnaeus classified humans into five categories: *Homo sapiens Americanus*, *Homo sapiens Asiaticus, Homo sapiens Afer, Homo sapiens Europaeus*, and *Homo sapiens Monstrosus* (see Vizenor, *Manifest Manners* xiv, for Vizenor's take on Linnaeus' racism).

[8] There is little consensus on definitions of "agency" across theories and disciplines, and there is ongoing debate around whether and/or which animals—and other living and nonliving beings—ought to be considered as possessing agency (Timmins). I use the term "agency" to challenge where dominant Western understandings do not understand other animals, in comparison to humans, as being able to act with intention or purpose, and do not understand animals as being able to significantly impact the world around them.

[9] When groups of humans, such as women, 2SLGBTQ+ people, Black, Indigenous, and people of colour, et cetera (see Harris 41–42, this volume), are denied ethical consideration, they are also often presented as being somehow less than human (see Agamben, Plumwood).

[10] At times Abram addresses that this forgetting is particularly a problem in Western understandings. At other times he seems to present this forgetting as a problem among all humans.

[11] I do not mean to dismiss people who identify as victims, in various contexts. As I read Vizenor, his problem with "victimry" is how Indigenous peoples are essentialized as *always only* being victims, without choosing or consenting to this identity. Velie writes that Vizenor objects to "portraying Indian history as an unbroken string of atrocities and humiliations, devoid of highpoints or anything that Indians can point to with pride . . . . Vizenor objects to people using Indians as sticks to beat white America and to offering Indians pity and condescension but no respect" (148).

[12] I come to the term "cacophony" from Byrd, who uses it to discuss how U.S. empire has impacted different peoples, in different parts of the world, at different times, in varying ways.

[13] The active agential quality of survivance distinguishes it from similar concepts, such as resilience. Resilience denotes a passive characteristic that some beings possess and others do not, leading to an epistemology-based ethics situation where we need to know which beings are resilient in order to determine how we should consider or care for them. Survivance, on the other hand, must be practiced. Therefore, actions can be viewed through the frame of survivance in order to gain a new understanding of them, reflecting ethics-based epistemology.

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Water Memory

JAZ PAPADOPOULOS

ARTIST STATEMENT

Silvia Federici writes,

> Starting from an analysis of "body-politics," feminists have not only revolutionized the contemporary philosophical and political discourse, but they have also begun to revalorize the body. This has been a necessary step both to counter the negativity attached to the identification of femininity with corporeality, and to create a more holistic vision of what it means to be a human being. (15)

I wonder, what does it mean for my body to live on different land than my parents'? How do I reckon with the gender binary, and with having a body and a gender that exist outside of normative narratives? What does it mean to dig into sexuality in a world of gender-based violence, of body negativity, of sex negativity, of moralism? What does it mean to fully grieve in a culture that obliges the body to be quiet and pretty? It is strenuous to seek embodiment in a world where the body is a site of so much violence and pain. Nonetheless, I am curious, and I am committed to the revalorization of the body as a site of liberation and wholeness.

"Water Memory" is the story of the traumas that continue to live in my body—ancestral and current. It is written as an invocation of intimacy partnered with grief. It encourages relationships (with the self and with others) that not only allow, but revel in, the fullest embodiment of the body's experience.

I write from a place of queerness, of transness, as a first-generation Greek/Turk/Uke Canadian with chronic pain and a mood disorder. Yet, I insist, my body is not the enemy.

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It just happened again, last week. It happens often, but never wholly—I have yet to be turned all the way inside out. I keep coming back to it because I want it, but I don't believe that anyone else could want it too.

"Sex while crying—water signs only."

I warned her before it was happening: "I cry a lot." She consented, seemingly agreeing it was a good idea. Together, we moved. Isn't it funny how movements are slower and simpler, but also more arduous, underwater? Breathe; you won't drown here.

Together, we coaxed out the flood with fingertips and teeth, gouging into bones and the depths between muscles, crying out to show it was working. Everything around us was wearing darkness. It was the quality of black you might encounter at the ocean shore, unable to see where your feet stand on a ground that becomes water, that becomes horizon and sky, that becomes the back of your eye sockets before you even realize you're back again. Black: the colour of every colour in chorus.

***

It must have started when I discovered my diaphragm. I learned to laugh and shook out everything. Especially the things I didn't remember forgetting. It was like going outside and pounding the dust out of a shaggy rug after a long winter indoors. Muscle memory draws deep, deeper than the mind.

These days, I mostly reflect on my grandmother. She would lie to her family back in Greece after emigrating to Canada. There, she had been a midwife, crusted in salt from the Ionian Sea and the lifedeathlife fluids of all the babes in her mountain town. Here, she worked at a laundromat. She didn't tell them that, not over the long phone lines nor when she went back to visit. I have walked with her through the slanted streets of that old place, Kyriaki, Greece, nestled in the mountains of the Peloponnese. In Kyriaki, my grandmother saunters while my prairie calves work hard to hold my body upright. Women twice my age wave to us, women who have been caught and washed of their amniotic fluid by her hands. She left during the junta, journeying the Atlantic Ocean to work at a laundromat in Northern Canada, where her nylons froze to her legs.

The ER doctors cut them off, tiny crystals tearing her skin. Did she lie about this, too? I've learned that immigration is a story told through what is forgone, left behind.

***

I could feel myself bruising immediately, especially along my collar and neck. I asked her to go deep into me and she did, pulling the wetness out. The land was thirsty, eager. I could hear the ground cover cheering us on.

She was strong, biceps pulsing, teeth firm, oh she was strong. I am crustacean-born—wetness knows no bounds. It seeps in and out as I slosh around, fumbling. With her, it flows out my sex and then up through my throat, and I heave and retch. Everything wants out but it is not solid; it is a diluted mass of memories, ideas of grief and trauma that hold no form. I churn and shudder and make noise, and eventually salt water also flows from my eyes as these mysterious remembrances leave my body; flying, floating, up, up, and out, and I slump in relief.

Sometimes the water is gentle, buoyant, and then I laugh again, with ease. Other times, it crashes hard, struggling, swelling, and slamming into towers of rocks that stubbornly throw it back at itself.

I never know how deep the well is or if I'll be able to climb out afterwards. Inhale, there is always more, and I hesitate, breathe, choke.

***

He wouldn't let me cry. I avoid his name, but I half-hiss–half-spew out the pronoun with a carnal "h" pitched from the back of my diasporic throat. The second it began he moved to plug up all the holes, quickly, like a pickpocket speeding away from a now-empty pouch. Like my grandmother, I left. We are a story of movement.

***

This is everyone and everything's burden and I am not willing to hold it alone. Won't someone cup their hands and catch my breath, gather the matter fallen from my chest, and dig a hole with me in which to bury it? Let us have a ritual, let it flow and put it to rest. All things need a burial, need earth on the belly to stay grounded, weight on the eyelids to help them close. Water has force. I need help.

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Sometimes they would wait, stroking my hair, wiping away each tear as it ran towards the floor, stopping it before it could find its own place to rest. This is interference; it wouldn't be this way in the ocean, where all waters commune, illustrious, kissing and sliding, each drop one of the same and making more always. Yes, we are fluid bonded to each other, but I want to be fluid bonded to myself, my cum and tears mixing on skin, eros and thanatos together, a whole life force. Do not choke me halfway, I need all of my mouth to breathe.

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I think of my grandmother, and also my mom's dad's brother, who drowned in the river behind the farm the day after returning from the war. His name has drifted, it is not passed down, but I still know it happened. Water memory: water's ability to retain a memory of substances previously dissolved in it, even after a number of serial dilutions. That was over 30 years ago, and that river still feeds the farm that feeds us. I was still born in his wake, silently watching my mother choke and sputter around me.

Who can cross the river of Lethe without drinking?

All of this water lives in me and is suspended, ready to cascade. I hold its hand, waiting with it, wait for it. We are friends and will not abandon one another. Find me, please. I salivate to think of it.

Requiem to window sealant

SOPHIA JAWORSKI

> *Signs without faith, without affect or history . . . [a] system that is totally complicit in its own absorption, such that signs no longer make sense* (Baudrillard 120; 77)

Pre-caulking, resin, pine pitch, bitumen, wax, lime mortar, linseed oil, chalk, and blood and egg, were used to fill the cracks.

Caulking fresh out of the tube has an aesthetic of dirty cream filling. It is meant to mend the spaces where sun, rain, dust, and wind get into the house.

For many it has a dolorous haptics, a dirge of sensory detonation. To feel life turn, enfolding plastispheric carnality.

Petroleum distillates clattered into my lung archives, edgy in the inhale tow. Plastic registers. Intimacy of substances. The fugitive sensitizers of smog and sweat.

It is never just about apartment renovations. Collective access and meteorological showdowns.
It took three weeks to emerge from the sedimentation of fume incitants. The irony: that drying glue is said to “let cure.”

Source: the lack which spurs the round turn of breath.
Source: atmospheric-silicone, ripening.

Toxon is Greek for bow. The arrow? Sensitive senses condense into a different bowline.

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This image shows the atmospheric meteorology of my friend's silhouette. Rafts of sediment floating down the Don River are superimposed onto their darkened outline with the intention of conveying the impression of many different chemicals moving throughout the air.

Critical Theory for the ~~Anthropocene~~ Future

INTRODUCTION BY GARANCE MALIVEL

How might critical theorists disrupt the universalizing understanding of "humanity" manifested in mainstream conceptualizations of the "Anthropocene"—the proposed denomination for a geological era in which human activity has become the main agent of environmental change? When will policy-makers reckon with the interlocking systems of inequality and oppression embedded in the production and distribution of environmental harms? How could critical theory be incorporated within existing legal and scientific infrastructures? These are some of the questions raised during the Critical Theory for the ~~Anthropocene~~ Future conference, held on June 6, 2018 at the Gladstone Hotel in Toronto, Canada. Convened by Dayna Nadine Scott, York Research Chair in Environmental Law and Justice in the Green Economy, in collaboration with Sonia Lawrence, Director of the Institute for Feminist Legal Studies at Osgoode Hall Law School, the event offered to explore a range of epistemological and legal tools to work toward socially and environmentally just futures. Drawn from the presentations of the four feminist scholars invited for this conversation, the following contributions address prospects and challenges that come along with efforts to conceptualize alternative environmental governance models.

(L to R) Sonia Lawrence, Dayna Nadine Scott, Usha Natarajan, Michelle Murphy, Angela P. Harris. Photograph by Graham Reeder.

Present through a video recording, Métis researcher Zoe Todd elaborated on the Cree legal principle of wahkohtowin, which describes the fundamental interconnectedness of all living and nonliving beings. Todd shared with the audience a reading of her poem "Tenderness Manifesto" [not included in this volume, but available at zoestodd.com/tenderness-manifesto/], which outlines what an ethics of kindness and reciprocity might feel like. Legal scholar Angela P. Harris followed with an investigation on the commonalities between "x" justice movements (environmental justice, reproductive justice, food justice, et cetera) and on possible ways to model decolonial futures in a society governed by white settler law. Usha Natarajan went on to question the effectiveness of the liberal legal system in tackling environmental changes when its building blocks—sovereign states—have been founded on the premise of "master[ing] nature" (44, this volume). Closing the presentations, Métis scholar Michelle Murphy presented the work of the Technoscience Research Unit on the intersecting forms of colonial violence perpetrated by the Imperial Oil refinery in Sarnia, Ontario. Highlighting how this violence has been manifested through territorial dispossession, but also through the ways in which industrial chemicals have been studied and enabled in the airsheds and bodily systems of fenceline communities, Murphy offered insights on possible paths toward decolonial sciences and regulatory infrastructures.

We are deeply grateful to the authors for allowing us to share their reflections with a broader audience, and to *UnderCurrents*' editorial team for offering to publish them in this timely volume bridging past and future modes of living and relating. Grounded on the principles of inter-national, inter-species, and inter-generational equity, the following essays ultimately remind us of our responsibilities towards those we have shared and will continue to share this world with.

The Politics of the [x]

ANGELA P. HARRIS

For the last few years, I've been fascinated with the emergence of North American social movements that label themselves with the word "justice." The best known are probably "environmental justice" and "reproductive justice," but there is also "food justice," "water justice," "energy justice," and "land justice," among others. In an article in the *Canadian Journal of Women and the Law*, I describe these movements collectively as "[x] justice movements," and I argue that they share commitments to undermining some of the central projects of white settler law.

When I started this project, I called these movements "[x] justice movements" as a shorthand for their common self-designation. But, as I've thought further about what they're doing, I've begun to engage with a different usage of the [x]: a willing embrace of the unknown. I'll say something first about the theoretical re-designation of the [x], and then I'll say something about what I see as the possibilities of [x] justice movements from this perspective.

The politics of the [x]

Paola Bacchetta observes that theorists and activists who embrace the concept of "interlocking oppressions" often mark their commitment with an embarrassed or glib reference to "race, gender, class, sexuality, disability, etc." Bacchetta wants to take the indeterminacy of this list seriously—as a recognition not only that a full account of the identities made invisible or excluded by existing relations of power would be unwieldy, but that such an account is likely impossible: (1) because, at the psychic level, relations of power shape our own capacity to think and act so that we are always only partially visible to ourselves; (2) because, at the social level, our intentions and actions in the world change that world so that new identities become possible; and (3) because, at the physical level, we live in a quantum universe that is fundamentally creative, indeterminate, and not fully legible to us.

In February 2002, Donald Rumsfeld, who was the United States Secretary of Defense, stated at a Department of Defense briefing: "[t]here are known knowns, there are things we know we know. We also know there are known unknowns, that is to say we know there are some things we do not know. But there are also unknown unknowns—the ones we don't know we don't know" (see "RUMSFELD / KNOWNS").

Everyone made fun of him at the time, but he was onto something. Bacchetta uses the idea of levels of the unknown to incorporate uncertainty, futurity, and humility into critical theory. She proposes that we replace the embarrassed "etc." ("race, gender, class, sexuality, disability, etc.") with theoretical terms that deliberately accept our limited understanding of how power and subjection interact. The new terms she seeks to introduce are "et cetera" (written out rather than as an abbreviation) and "x." Here is how she describes the project:

> While the etc., et cetera and the x all signal an outside to the analytic, the etc. only acknowledges a fraction of the relations of power that potentially comprise the et cetera and the x. The et cetera and the x can go where the etc. cannot venture. The etc. represents known relations of power, while the et cetera denotes both the known and unknown-knowable, and the x both the unknown-knowable and the unknown-unknowable. The et cetera, then, is about absent-presences while the x is about absent-absences.

White settler law and operations of power

In my article, I argue that white settler law—liberal law as it operates in white settler societies like the United States and Canada—operates through at least two distinct modes of power. I won't go into too much detail about them here, but the modes I identify are *subjection* and *spatialization*. By subjection, I mean the law's participation in creating subjects that are recognized before the law in the first place, and also the law's participation in differentiating those subjects: designating some as full subjects, others as defective or dependent subjects, and others as non-subjects. I'm using "subjection" roughly in the Foucauldian sense. For example, think about corporations, states, persons, wild animals, farmed animals, women, Indigenous Peoples, racialized minorities, and children. These are identities partially authorized by law and given different powers under law.

By spatialization, I mean the law's role in creating material spaces through invisible borders and boundaries—spaces like "Canada," "the United States," "the ghetto," "the wilderness," "Indian country." I also mean the law's role in creating conceptual spaces—like "the private sphere," "the public sphere," "the market," and "the state." Subjection and spatialization work together to create and stabilize relations of power in white settler societies.

What I find interesting and hopeful is that [x] justice movements work to undermine both of these dynamics, making space for anti-colonial and perhaps de-colonial futures. I argue that [x] justice movements share three basic commitments: (1) a commitment to "justice" that explicitly calls attention to the limits of existing law; (2) a commitment to acknowledging interlocking systems of oppression, instead of embracing single-axis identity analysis; and (3) a commitment to a "politics of life," which transgresses conventional conceptual spatial boundaries.

First and foremost, [x] justice movements refuse the limits of law. Lawyers working for environmental justice, for instance, acknowledge the need to put lawyers "on tap, not on top." And other [x] justice movements similarly seek a transformation in relations of power, not liberty or equality as defined by law. Second, [x] justice movements begin with "the etc." but, I would

argue, make room for the et cetera and the [x]. Here, for instance, are the words of one reproductive justice website:

> Reproductive justice is in essence an intersectional theory emerging from the experiences of women of color whose multiple communities experience a complex set of reproductive oppressions. It is based on the understanding that the impacts of race, class, gender and sexual identity oppressions are not additive but integrative, producing this paradigm of interlocking oppressions. For each individual and each community, the effects will be different, but they share some of the basic characteristics of interlocking oppressions — universality, simultaneity and interdependence. (#Trust Black Women)

Giovanna di Chiro argues that [x] justice advocacy is moving beyond this conventional "etc." politics of interlocking oppressions into a broader understanding of subjection beyond a specified list of identities. She notes that, working together, some environmental justice and reproductive justice organizations in the United States now understand their struggles not so much in terms of individual human rights, but as "about fighting for and ensuring social reproduction" (Di Chiro 285). If we, like Di Chiro, define social reproduction as "the intersecting complex of political-economic, socio-cultural, and material-environmental processes required to maintain everyday life and to sustain human cultures and communities on a daily basis and intergenerationally" (281), we move from the "etc." to the et cetera.

If we look more deeply into the material-environmental processes required to maintain everyday human life, we begin to open to the [x]. As scientists are pointing out, "human" and "life" are both terms that are increasingly dissolving as known knowns, and as we open to the uncertainty of the future, the et cetera becomes the [x].

Another example comes from climate justice work. As Kyle Whyte notes, for Indigenous Peoples climate justice work is intertwined with "the systems of responsibilities their community members self-consciously rely on for living lives closely connected to the earth and its many living, nonliving, and spiritual beings, like animal species and sacred places, and interconnected collectives, like forests and water systems" (600). Accordingly, Indigenous Peoples are designing and leading movements to protect the rights of living systems such as rivers and forests. In this way, [x] justice movements begin to undermine the subjection dynamics of white settler law, disrupting the known subject of "the human."

[X] justice movements begin to undermine the spatialization dynamics of white settler law as well. Here, the example I'll give has to do with conceptual spatialization. Eric Holt-Gimenez and Justine Williams write:

> The challenge for land justice is not just how to confront the issues of concentrated private property and the financialization of agricultural land, or how to forge an agroecologically sound and economically equitable form of agriculture, but how to confront capitalism. Our skewed system of land tenure reflects a regressive political-economic system, itself embedded in a continuing legacy of dispossession, concentration and exploitation. (259)

The radical wing of the food justice movement similarly calls our existing food system "broken" and calls for new political economies of food built from the ground up, instead of the top down, requiring a disruption of capitalism. Water justice calls for the de-commodification of water. Maxine Burkett, writing on climate justice, notes:

> [T]he climate movement does not purport to be an environmental one. It aspires to be much more than an attempt to legislate to correct a discrete environmental harm. It seeks to correct a deeper harm that disparately dismantles livelihoods as a result of a changing climate, and to introduce a different kind of political economy. (17)

In attempting to dismantle capitalism itself, [x] justice movements self-consciously adopt a politics of the [x], not only the et cetera but a commitment to unknown unknowns. This is a politics that ruptures the fundamental liberal borderline between "the state" and "the market," calling for forms of governance and types of spaces that we can't as yet imagine.

Conclusion

The first of the 17 principles of environmental justice adopted at the 1991 People of Color Environmental Leadership Summit in Washington, D.C., provides that: "Environmental Justice affirms the sacredness of Mother Earth, ecological unity and the interdependence of all species, and the right to be free from ecological destruction." To work for this objective is an anti-colonial project; to achieve it would be a decolonial project.

The politics of the [x] envisions a decolonized world. [X] justice movements posit the existence of a freedom that, in Alexander Weheliye's words, "most definitely cannot be reduced to mere recognition based on the alleviation of injury or redressed by the laws of the liberal state . . . [S]aid freedom might lead to other forms of emancipation, which can be imagined but not (yet) described" (15).

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Law & Critique: Hubris in a Time of Environmental Change

USHA NATARAJAN

Thank you to Dayna Scott and Sonia Lawrence for this event. It is an honour and pleasure to have the opportunity to engage with and learn from my fellow panelists. I will elaborate on some of the themes raised by Angela Harris about producing knowledge with humility. I want to think about why it is so hard for lawyers, particularly international lawyers (and I include myself in this group) to produce knowledge in such a way.

Before getting to "Critical Theory for the Future," I begin with some background about myself and my discipline. I am an international lawyer. My interest in international law and understanding of it are shaped by where I come from. I was born in India and became an Australian citizen when I was a teenager. My interest in international law began after moving to Australia because I wanted to understand the disparities of power and wealth between the so-called First and Third Worlds, and international law seemed the appropriate field to grapple with questions of global injustice.

I was drawn to various critical movements within law that explained the discrepancy between the promises of equality that are repeatedly reiterated and inscribed within international law, and the increasingly unequal world we live in. Specifically, I was drawn to "TWAIL" or "Third World Approaches to International Law," which is a postcolonial movement that unpacks the ongoing colonial legacies of international law, and demands decolonization and inclusiveness.

In Australia, law is an undergraduate degree and, while I was studying law, I undertook a parallel undergraduate degree in the history of art. The juxtaposition of these two fields of study was an apt illustration, very early on, that in law we are dealing with a deeply conservative discipline. Critical theory enters law slower and later than it does other fields, such as art history, literature, and so on—sometimes with a gap of many decades, with postcolonialism being just one example. It is from this background that I ponder the future of critical theory within law. Without question, the central challenge is how critical legal theory responds to environmental change.

The international law response to environmental degradation is a specialization called international environmental law. It is a high-growth specialization. Commencing in the 1970s, it now consists of an increasing number of treaties, international organizations, research centres, funds, textbooks, graduate degree programs, courses, and so on—all the accoutrements of a successful legal specialization that has staked out its space and is busy putting down roots and putting up shoots.

The initial response of critical international lawyers to international environmental law was interesting. For many decades, international lawyers in the global South—whether critical or mainstream—were largely united on the environmental issue. Both critical and mainstream international lawyers from the South emphasized that environmental problems were caused for the most part by the global North and hence the global North should shoulder the bulk of the burden of fixing these problems. Additionally, as the global North had enriched itself through environmental destruction, the global North also had much greater capacity to shoulder the burden compared with the impoverished global South. Critical legal scholars in the global North rarely engaged with the environmental question at all but, on the rare occasions when they did, they largely supported the stance of Southern scholars.

With Southern lawyers engaged in the international environmental law project, legal principles reflecting the Southern position were successfully proclaimed within international environmental law, such as an acknowledgement of our common but differentiated responsibility for the global environment. The legal concept of sustainable development also incorporated an understanding that those who cause environmental harm and those with the greatest capacity to mitigate it should take the lead. These ideas were incorporated in various ways within treaties, the best-known example being the Kyoto Protocol.

However, these principles and ideas have been to no avail. In each of the environmental issues that international law has tackled—climate change, biodiversity preservation, combatting desertification and deforestation, fighting pollution in the air, water, and earth—we have failed. Each of these problems is worse now than before the advent of international environmental law. Yet international environmental law has grown in leaps and bounds and will continue to do so.

In light of this state of affairs, what is the response of critics today? Have they changed their stance? For some, not much has changed. Some scholars,

especially those from the postcolonial school, point to the obvious: the North refused to live up to its legal obligations, and thus we have failed to stem environmental degradation. While this is true to a certain extent, and we should certainly continue to say so, past experience indicates that this critique by itself has proven neither tactical nor helpful in combatting environmental degradation.

Other critics within international law refuse to engage with environmental questions altogether; they see the proliferation of international environmental law as part of the reproduction of longstanding structures of economic, political, and social violence and see no tactical value in engaging with this particular manifestation. They particularly resist the mainstream's obsessive focus on climate change, insisting that it is a distraction from broader underlying inequities.

Many of these critical stances are reiterated in the pushback against the term "Anthropocene," and it is very understandable. In a world where New York emits more greenhouse gases than the whole of sub-Saharan Africa, any claims about humanity as a whole—our agency and power as a species—are nonsense, especially when sub-Saharan Africa—human and non-human—feels the unmitigated brunt of climate change at an exponentially greater degree than those who caused it.

I can understand this stance. I have studied inequality all my life, starting with the laws of war, then looking at trade, economic, and investment law. But I have never seen greater inequity and injustice than that being wreaked by climate change. We see it everywhere, but I take an example from my own region, North Africa, where I have lived and worked since 2010. We are the most water-scarce region in the world; the most import-dependent for food; our political problems are well known due to the ongoing Arab uprisings; and we are unsurprisingly unable to cope with fast-moving changes in the deserts, and deltas, and the large tracts of land that are fast becoming uninhabitable. The last drought in Somalia displaced 4,000,000 people, and 100,000 people died, mostly women and children. How can Somalia, the subject of relentless international interventions for every other conceivable reason, be expected to cope with longer and more severe droughts alone—a situation that it did not cause and has no means of preventing?

So, I too share the concerns and frustrations that characterize existing critiques. *But much more needs to be said.* Environmental change requires more than our long-standing demands for fairness and redistribution. Environmental change forces a more fundamental change in our ways of knowing the world. While questions of redistribution remain relevant, even revolution and radical redistribution of power and wealth will not provide a solution to environmental change without a revolution in thought. Today, it is possible that a revolutionary condition is looming and a force beyond our timeless socio-economic conflict is a driving element. It is likely that natural contingencies will arise faster than humankind's ability to negate systemic collapse. So, the revolution may be ready for us, but we may not be ready for the revolution.

For lawyers, environmental change provokes a rethinking of what law is, given the significant role of law in creating the difficulties that we face today. As it stands today, the concepts that law is built on are wedded to environmental destruction. The basic building block of international law—the sovereign state—must master nature and submit it to the task of infinite economic productivity. Societies that do not do this will not be sovereign. A world of sovereign states is further atomized into a world of individuals possessing human rights. Legal doctrines such as sovereignty and human rights are examples of the many ways in which societies and individuals have become abstracted from their natural environments. Scientifically and spiritually, we know that we cannot exist without the non-human entities that enable us to breathe, grow, and live. We are inseparable from all of nature in life and in death. Yet, notions such as human rights assert a clear demarcation of our species from all others. Notions such as sovereignty assert our mastery of nature even in the face of our diametrically opposite experience: our inability to stem the sixth mass extinction, or the changing climate, or the spread of deserts and decimation of forests, or the pollution of the soil, water, and air. Similar critiques can be levelled at other fundamental legal concepts such as territory, jurisdiction, and legal personality, to name but a few, all of which have underlying assumptions about the natural environment that are harmful, destructive, and inaccurate.

Disciplines such as law and economics—indeed most knowledge production in the Enlightenment era, critical or otherwise—take for granted the underlying stability of natural systems. However, this is no longer the case. The development patterns of the rich have destabilized natural systems. So, at the very least, we have to contend with whether our understandings of development and progress are mistaken; whether the directionality and hierarchy that give meaning to the developed and developing dichotomy are misguided; and whether we have something to learn from the human and non-human cultures that have proved less destructive than our own.

If the central tenets of international law destroy the environment, reinvention of the discipline could start with acknowledging that the environment—or nature—is not an object that we can cast the net of our knowledge or critique over. On the contrary, it is what encompasses, surrounds, and regulates us; keeps us alive, breathing, growing, and learning. It has laws of its own from which we can learn if we listen.

Chemical Futures and Environmental Data Justice

MICHELLE MURPHY

I am an urban Métis from Winnipeg, I have been living in Toronto for 17 years, and my family is both white and Métis, so I am really obsessed with complicities in relation to colonialism and to the project of understanding whiteness in all its forms, when it becomes so intimately part of our lives. We can draw our attention to intimate complicities of many forms: we can think of our relations, or the ways that cellphones are part of our lives, or the ways that chemicals are part of our bodies. Our lives, and the ways that chemicals are part of our bodies, are some of the ways that colonialism makes us. My work thinks about technoscience and how we might dismantle whiteness.

The work that I will be sharing with you is part of an emerging, exciting field called Indigenous Technoscience Studies. And tomorrow I will be flying out to Edmonton, where we will be having an Indigenous Technoscience Studies conference to build a network around this here in Canada. Some of my inspirations are fabulous Métis technoscience folks, including Zoe Todd, who you have just heard from; there are also wonderful people doing great work in and outside of universities—Max Liboiron, Erin Marie Konsmo, Elizabeth LaPensée. My work is happening inside the Technoscience Research Unit, a lab we opened up about a year ago at the University of Toronto. We are trying to do something different, to imagine what would a lab that does decolonial technoscience look like; what would a lab that brings BIPOC, LGBTQ2S people together to research white technoscience look like. What we are trying to build, a lot of the time, is the lab itself: how our lab is even going to work, how we are going to come together to define our protocols, how we can make a space inside this university that works differently.

What I will be talking about today concerns the question of how environmental data manifests settler colonialism and racial capitalism. What are some ways of working with and against data towards better land/body relations? We will see how this connects to the question of being with and against the "Anthropocene"—which is what the strikethrough [in the event title, Critical Theory for the ~~Anthropocene~~ Future] means to me. We are both thinking with this word and knowing that it is not the right way to go.

The project that our Technoscience Research Unit lab is working on right now is called "Visualizing Colonial Violence: Imperial Oil." It is about the Imperial Oil refinery in Sarnia, Ontario, which is among the oldest in North America. I am part of a team who I am learning from: Kristen Bos, our Lab Manager, who is Métis; Vanessa Gray, from Aamjiwnaang First Nation, an incredibly fierce land protector; Rena Shadaan, who does amazing work on nail salons and environmental justice; and Ladan Siad who works on BIPOC people and data justice in the city. I could not be luckier than to work with these people.

I want to start with this bit of footage (see "Sarnia Fire," https://www.youtube.com/watch?v=uQjFNrIXHfk); this is February 23, 2017. You might wonder what we are looking at, and maybe some of you saw this on Facebook. This is the Sarnia Imperial Oil refinery on fire, in Chemical Valley, on the St. Clair River, which runs from Lake Huron down to Lake Erie. We are looking at it from the U.S. side. The footage has been taken from someone's smartphone. This is where 40% of Canada's petrochemicals are refined. Imperial Oil celebrates this refinery as one of their most "integrated" fuel, chemical, manufacturing, and petroleum research centers. It produces 120,000 barrels of oil a day. So, what are we looking at? Are we just seeing a visualization of colonial violence and environmental violence? Are we looking at the harms that people who live proximate to this refinery are going to have to bear into the future?

This is what Imperial Oil said: "nothing is happening. There is a small grass fire; it was put out. No emissions, no injuries." You are probably familiar with this kind of corporate doublespeak and denial. Can we trust our senses? What were we witnessing? How can we find out? Imperial Oil is only required by law to give these little tweet-sized bits of information that you have to subscribe to in order to keep informed about the ongoing spills and accidents that happen in Chemical Valley. These reports come in a steady stream. We know that there is some fence line monitoring of six chemicals. I am thinking of this as a kind of gaslighting, and maybe some other people have seen the resurgence of gaslighting since the election of Donald Trump. Gaslighting is a form of abuse that manipulates people into doubting their own memory, their own perception, their own reality, their own sanity. "No emissions here, nothing is happening!" "Small grass fire put out"—denying the evidence that is right in front of you. Compliments tangled with lies. We can think of the subtle ways in which we probably all experience this in the university. But there is also this other, very violent kind of gaslighting and form of abuse. We have two great gaslighters: Trump and Trudeau.

Vanessa Gray and Ecojustice, the NGO, have been pursuing a legal complaint with the Ontario Ministry of Environment, trying to find out what happened with that flare. They are trying to get the actual information and data—that is still ongoing. I am thinking about gaslighting not just as something that is about interpersonal abuse, but as something that is infrastructural. It is baked into our data and the system that produces data. It is baked into the system that makes it possible to say "nothing is happening here!" when we all can see and feel that violence. We know that this is gaslighting because Imperial Oil is one of sixty refineries that has a steady stream of petrochemical violence in Chemical Valley. Aamjiwnaang First Nation, one could say, is surrounded by Chemical Valley, but it is more accurate to say that Chemical

Valley *interrupts* the sovereign territory of Aamjiwnaang. We have been doing research, looking into the archives of how the Indian Affairs office was part of taking the land and making it into Chemical Valley. Why is Chemical Valley there? It is because this area had some of the first commercial oil wells in all of North America, and this was thus called Canada's Oil Lands. The Imperial Oil refinery was built in 1871 and then bought by Standard Oil in 1897. So Chemical Valley, in a way, was built up around Imperial Oil; it is a kind of starter company. It was celebrated on Canada's $10 bill in the 1980s, as well as on a coin. Imperial Oil is crucial to the way that Canada's settler state imagines what it does, and this is part of these infrastructures of gaslighting that I am trying to think against and call out.

We can say that pollution and the materiality of pollution is a kind of colonialism, but we can also say that this permission-to-pollute state that is Canada *is* also colonialism. This is what we tried to argue in a collaboratively written pamphlet, "Pollution is Colonialism" (Liboiron), which Dayna Scott was part of. Gaslighting is essential to settler colonialism. We can think about the Doctrine of Discovery and Terra Nullius—the logic of elimination and erasure that is the legal foundation of settler colonialism—as a gigantic gaslighting project: "No one is here." Racial gaslighting is really a crucial part of how white supremacy works in North America, on Turtle Island. More than this, as a science and technology studies scholar, I show how this gaslighting is *in* our science; it is in the way that experiments are set up; in the way that we study how chemicals affect life. We study one mouse in a box, one chemical at a time, looking at a chemical and a particular duration, looking for specific regular effects. Technical details are part of this erasure project. The dose-response curve that only looks at how chemicals affect things as they increase in dose: that is an erasure project too. It is a gaslighting project that erases all the kinds of low-level exposure harms that exist. When it comes to cancer, there is no safe threshold. When we think about endocrine-disrupting chemicals, this idea of a dose-response curve is gaslighting. Gaslighting is in science, and it is in the state and corporate forms of monitoring.

This 1873 survey map by the Canadian Department of the Interior shows the area that will later become Ontario's Chemical Valley. On the map one can see the recognition of Aamjiwnaang First Nation territory, here marked as "Indian Reserve"; the presence of the Dominion of Canada Refinery, which will become the Imperial Oil Refinery, now the oldest running refinery in North America; as well as indications of the "Indian Mission," which will also later become land beneath today's Imperial Oil Refinery. Map from Library and Archives Canada / Department of Indian Affairs and Northern Development fonds ("Plan of part of the Sarnia Indian Reserve known as the Mission Ground, sold to the Great Western Railway Company. / John H. Jones, P.L.S"; item ID number 2148459; reproduction of image found at http://central.bac-lac.gc.ca/.redirect?app=fonandcol&id=2148459&lang=eng).

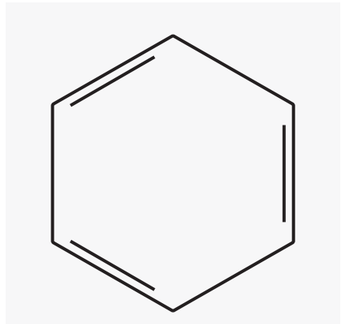
The National Pollutant Release Inventory (NPRI)—the U.S. equivalent of the Canadian Toxic Release Inventory—is a governance system where all the refineries, factories, and pipelines are supposed to report their annual emissions. We turn to this, as environmental justice folks, and we can show how the concentrations of those emissions are clustered around communities of colour, poor communities, and Indigenous communities. We use this data to make environmental justice arguments. The Imperial Oil refinery emits 53 chemicals into the air. We downloaded all of the NPRI data from 1994 onwards and we looked at how the data was calculated.

There are 6,221 different reports of emissions and only around 300 are based on a physical measure at the refinery. The rest are based on mathematical formulas—little Excel worksheets that the state and industry have agreed on. This amounts to saying "we admit we are releasing this chemical," but the rest of it is gaslighting. The actual direct measures are only 5.4% of this data, and the measures where they do not say the method are far bigger.

So, our lab is looking at the NPRI and wondering what we can do with this messed up settler colonial data. That is part of what we are asking with Environmental Data Justice: what can we do with this data so that it does not work against us? And there is another question alongside, which is, what if the versions of objects we think with within universities are *wrong*? I think that is a big problem in the Anthropocene—to realize that our fundamental objects, for instance, chemicals, are wrong. They have been given to us by the systems that we are seeking to dismantle. We end up working with these objects that have been installed into our world, as the things that populate our world, when they actually are artefacts of the systems we want to dismantle. I

really care about chemical violence, but I think that chemicals, as conventionally presented to us, are the wrong object or they are not *objected* in the right way. This question is part of a project I have with some colleagues—which thinks with and against the Anthropocene—that is called "Engineered Worlds." We are trying to ask what happens if many of our objects are wrong. I want to unthink and rethink chemicals with data. Can we do data visualizations and rethink what a chemical is, if the way we came to the sciences, to understand a chemical, was built by the industry, was built by the settler state, was built by whiteness, was built by racial capitalism? The version of what chemicals and chemical exposures are, as given to us by industry and state, does not serve environmental justice; it does not serve Indigenous futures. We need a better version of what a chemical is.

What is wrong with chemicals? So much of the data to understand them is gaslighting—that is the first thing. And the second thing that is wrong with how we think about chemical exposures is that so much of it is damage-based research. Because the state is not tracking industrial chemicals and because corporations do these gaslighting projects, we end up having to show the evidence of violence with our bodies. Our communities have to show the evidence of the damage; they have to hold that burden of showing that damage. I am, here, thinking with Indigenous feminist scholars like Eve Tuck and Audra Simpson about refusal, about rejecting damage-based research. How can we talk about chemical violence and stick the representational burden onto settler colonialism? Part of this work of changing the ways we understand industrial chemicals concerns how we talk in biology: what are the concepts we use in the life sciences to talk about the ways that chemicals create diversity of life when we have to live with violence? The ways we currently have to talk about how chemicals affect bodies put the burden of holding damage-based narratives onto people. And in this world, if you are damaged, you are disposable.



Benzene, an important refinery pollutant at Imperial Oil. Image from National Center for Biotechnology Information.

Our third habit is to think that chemicals are small—this diagram [in the bottom-left corner] is what a chemical is, as if it was just a structure. I call that "chemicals in white space": it is chemicals with all of the relations taken out of them. I do not think that chemicals are small. I do not believe that they are in white space. I think that they are full of relations; I think that industrial chemicals are massive and extensive. What we want to do is to confront gaslighting in data with other kinds of data visualization, which help to confront and dismantle the settler state. We want to refuse damage-based research, and we want to show that chemicals are not small but that they are part of our relations. "Violence to data, is violence on the land, is violence on our bodies." We have some inspirations for ways of visualizing chemicals differently, such as the stencils by Erin Marie Konsmo from the Native Sexual Health Network, a Métis land defender, connected to their "Violence on the Land, Violence on our Bodies" report (see Women's Earth Alliance and Native Youth Sexual Health Network). It is not the chemicals but these big systems like fracking that are disrupting body sovereignty and land sovereignty. Violence from pipelines is violence on our bodies. I think it is an important thing to not accept the scaling of chemicals and environmental violence. We must come up with different ways of talking about what is inside what. Violence from refineries is violence on our bodies. Can we think of industrial chemicals having extensive relations? They are not simply molecules; they are filled with settler colonialism and racial capitalism—connecting to what Angela Harris just said, these relations include "unknown unknowns!" Can we imagine that so-called "chemicals in white space" landing in a body are, in fact, filled with extensive relations? They are fracking, they are settler colonialism, they are racial capitalism, they are the legal structures, and so on. That is what is going on inside you and disrupting you when an industrial chemical enters.

Can we think about the kind of kinship and solidarity that happens when these systems connect us, make us, remake us, disrupt us, hurt us? Can we imagine that we need to attach our understanding of industrial chemicals as extensive relations not to bodies, but to Imperial Oil and other perpetrators? At our lab, we are working to reframe that NPRI Imperial Oil data by attaching an abundance of medical research evidence about low-level exposure harms, different organ systems effects, and reproductive harms to the chemicals Imperial Oil admits to releasing. And, drawing on this problematic NPRI data set, we are trying to find a way of not reproducing "chemicals in white space," but instead representationally showing the harms chemical pollutants do and attaching those harms to Imperial Oil. Imperial Oil is not just emitting these chemicals; it is emitting violence. Imperial Oil *has* to bear the burden of this violence. Of course, it is not just Imperial Oil, but Imperial Oil as part of a widespread corporate kinship. Imperial Oil is owned by Standard Oil, which is now ExxonMobil, the biggest oil company in the world. Imperial Oil gave birth to Enbridge, which has the longest pipelines in the world (see Technoscience Research Unit). Enbridge as a company derives from Consumer Gas—which is a Toronto company. The president and one of the founders of Consumer Gas was James Austin, who also founded Dominion Bank in 1871, which later became Toronto-Dominion Bank (TD) in the 1950s. It is one of the biggest banks in the world and a major funder of pipelines and the fossil fuel industry, as well as one of the owners of Imperial Oil and Enbridge. So, it is

indeed not just Imperial Oil: Imperial Oil is one part of a bigger black snake, a widespread infrastructure of the oil and gas industry. Taking this one step further, we can also attend to the refinery and its relationship to finance capital: how to attach our understanding of industrial chemicals to finance capital. We know that TD Bank has been an important target of divestment campaigns around #NoDAPL (No Dakota Access Pipeline). Can we think that violence from finance capital is also violence on our bodies? Can we connect those dots and can we take this NPRI emissions data from Imperial Oil, from Enbridge, from all the other places that TD Bank funds and stick it on TD Bank?

In attempting to visualize chemical violence as part of settler colonialism we are working towards Environmental Data Justice. I therefore will leave you with this last point: struggles over data are also struggles over infrastructures, are also struggles over our life supports, are also struggles over what futures are possible, what gets to be in the world, and what is destroyed. When we talk about data justice, it is just as a proxy for what kinds of worlds we are building and what kinds of worlds are destroyed.

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Dragonfly

After Elizabeth Povinelli's Geontologies

WESLEY BRUNSON

°

The first birthday he is in my life
My stepdad gives me *the way things work*
An illustrated encyclopedia of technology.

Its entries read

> *airburst*
> *orbital incline*
> *sealed auger boring*

On one page, a boy pushes a girl on a swing
As she moves across the page, she shifts
Greyscale to red.

°

They write:

> *this is not a reference book in the ordinary sense. it has been designed to give the layman an understanding of how things work, from the simplest mechanical functions to the most basic scientific principles and complex industrial processes that affect our well-being—a graphic introduction to the modern world of technology.*

°

I play hooky from school
And in my room start
To fill in all the encyclopedia's
Letters with ink, but finish
In frustration.

°

He writes

for a boy who likes to know
on his 10th Birthday.

°

He comes home late from work. i bury
My face in his coat.
It smells like road exhaust and salt.

°

My first major work is a collection
Of bugs for 7th grade biology.

In the backyard i run around chasing
Bumblebees. the techniques for catching
Them i nail.

I crouch, holding a cup in each hand
And lunge forward, scooping up
Air and insects. i bring the cups
To kiss.

At dusk, a blue dragonfly is perched
On a Black-eyed Susan like a lake under the sun.
Soon my opaque jail
Amplifies his frantic buzzing.

I creep home. on the kitchen counter:
A glass jar, a bottle of nail polish remover,
And a cotton ball.

I pour dragonfly into the jar, my
Hand a temporary lid.

Dragonfly flies around and around,
Beating against my palm, nose and eyes burn.

I make a gap between my fingers,
Drop in some wet cotton,
and screw tight the brass lid.

At first, he flies up and down,
Streaking the air blue. then he falls
Asleep on his pillow.

°

After a few minutes, i unscrew the
Lid and pick him up by his tail. his
Wings are frozen motion.

I press a pin into his back,
He emits a crunch, and i place him
In a neat row on the Styrofoam.

monarch butterfly
danaus plexippus

earwig
forticula auricularia

blue dasher
pachydiplax longipennis

Mom says

looks like a rainbow graveyard

I finish two other classmates' collections
I can't remember if they asked me to,
But that year, we all got a's.

°

That night, i awaken to a buzzing
And in the lamplight i see his corpse
Moving up and down
Along the pin.

°

I watch them all escape,
One by one, my encyclopedia
Decomposing

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Book Reviews

Aphro-ism: Essays on Pop Culture, Feminism, and Black Veganism from Two Sisters

By APH KO AND SYL KO. Lantern Books, 2017. $20.00 USD

REVIEWED BY AMANDA (MANDY) BUNTEN-WALBERG

Aphro-ism: Essays on Pop Culture, Feminism, and Black Veganism from Two Sisters is a collection of radical decolonial, anti-racist, feminist, and vegan essays that "tackle the deep entanglements of oppression, and simultaneously offer ways of moving closer toward liberation" (Aph Ko). As the title suggests, this collection is written by two sisters, Aph and Syl Ko. Aph Ko is a theorist, indie digital media producer, and founder of Black Vegans Rock. Syl Ko is a philosophy scholar "exploring Wittgensteinian 'forms of life' defenses of animal use, taking into account the racialization of the animal." Their collection is urgently necessary in a context where the "symbolic [and] cultural elimination of black Life" (Syl Ko) and the literal elimination of Black lives are ongoing; where other animals are systematically held captive, exploited for human use, and slaughtered in the trillions; and where mainstream veganism upholds Eurocentric, white-supremacist frameworks and ignores the insights and contributions of vegans of colour.

In writing this book review, I am mindful of my privilege as a white, settler, human. I want to emphasize that Aph and Syl Ko's work does not need my approval. I hope to give readers a sense of the nuance, depth, and vital importance of Aph and Syl Ko's work using, as much as possible, their own words. However, I primarily hope to encourage others to read *Aphro-ism* for themselves, so that they may directly engage with Aph and Syl Ko's vital work in all of its complexity and fullness.

In their collection, the Ko sisters artfully subvert problematic dominant discourses on feminism, race, and veganism. They actively "de-center white-centric campaigns that normally [come] to people's minds when *anyone* talk[s] about blackness and animality" (Aph Ko; Ko's italics) and they handle these complex topics with a refreshing degree of nuance and depth that are absent from mainstream discourses. For example, in "#AllVegansRock: The All Lives Matter Hashtag of Veganism," Aph Ko critically reflects on the post-racial rhetoric that arose in response to an article that she wrote, which listed and celebrated 100 Black vegans. Throughout this collection, Aph and Syl Ko challenge post-racial claims that it is racist, divisive, or a distraction from helping animals "when activists of color try to organize around their own experiences" or to "carve out spaces of empowerment" (Aph Ko) for themselves. In a context where mainstream veganism allows for "cosmetic diversity" (Syl Ko) while rejecting the actual perspectives of people of colour, Aph and Syl Ko engage with Black veganism. As Aph and Syl Ko elaborate on in "Why Black Veganism Is More than Just Being Black and Vegan" and in "Black Veganism Revisited," Black veganism is specifically informed by Black perspectives as opposed to being merely mainstream, Eurocentric veganism practiced by folks who happen to be Black. They develop an analysis of how addressing racism and addressing the situation of animals are fundamentally linked, and they grapple with the human-animal divide that is at the root of inferiorizing both humans and animals. Though this text is valuable for everyone to engage with, the Ko sisters are not interested in spending their energies educating and fighting white people when they can instead put their energies into their "collective black selves" and into "examining just how expansive the territory of white supremacy is" (Aph Ko), while also critically engaging with animality. They also make clear that they are not just interested in challenging the systems of power and domination that are currently in place, but rather their project is also deeply invested in envisioning new theoretical frameworks from which new futures can be built. In "Creating New Conceptual Architecture: On Afrofuturism, Animality, and Unlearning/Rewriting Ourselves," Aph Ko explores how Back veganism is an Afrofuturistic praxis in which "[p]eople who have been oppressed and minoritized are actively challenging white supremacy by rearticulating their relationship

to literal nonhuman animals [and by] developing a new relationship to 'the animal' as a social category" (Aph Ko). Thus, the Ko sisters' collection undertakes the revolutionary task of offering new and meaningful frameworks for understanding entangled oppressions and for realizing liberatory futures.

Aphro-ism is not only subversive in terms of content, but it is also stylistically subversive as it does away with popular conventions in writing and publishing. More than just a collection of theoretical and political essays, Aph and Syl Ko intend *Aphro-ism* to "read like an intellectual journal between two sisters" (Aph Ko). Indeed, their deeply supportive sibling relationship infuses this collection with a tone of solidarity, support, and care. Although Aph and Syl Ko's essays were undoubtedly carefully written and selected for this collection, they are not airbrushed into a state of unblemished flawlessness. Instead, Aph and Syl Ko honour and showcase their growth and change in thought over time, and they celebrate contradiction among their essays. The essays vary in topic, length, and style. As Aph Ko points out, "[s]ome articles are more academic whereas others are filled with plain, unapologetic rage." The result is a deliberately personal, dynamic, conversational, and accessible collection. Aph and Syl Ko's stylistic choices, in combination with their visionary content, make *Aphro-ism* a fundamentally important text to engage with. *Aphro-ism* offers important insights for all readers, regardless of one's positionality or familiarity with decolonial, feminist, or vegan theory.

MANDY BUNTEN-WALBERG is a Ph.D. student in Queen's University's School of Environmental Studies, where she is developing her dissertation research, entitled *Chiropteran Ethics and the Queer, Contagious Intimacies of COVID-19*. She is a graduate of York University's Master of Environmental Studies program, where she explored how humans might learn from other animals as teachers, leaders, and visionaries of their own liberation. She is hopelessly devoted to her cat companion, Murphy, and she seeks to support all human and more-than-human persons through veganism, theory, and activism that pursues total liberation (though she admittedly has a long way to go and a lot to learn).

Policing Black Lives: State Violence in Canada from Slavery to the Present

By ROBYN MAYNARD. Fernwood, 2016. $25.00 CAD

REVIEWED BY RACHEL LOBO

Organizer and academic Robyn Maynard begins the first chapter of her award-winning, national bestseller *Policing Black Lives* with a quote by African American activist, William Wells Brown: "[t]he more I see of Canada, the more I am convinced of a deep-rooted hatred of the Negro here." This was Brown's observation after visiting southwestern Ontario in 1861—a time in Canadian history mythologized as showcasing the nation's so-called benevolence and tolerance. Brown's visit occurred between the passing of the *Fugitive Slave Act* of 1850 and the beginning of the American Civil War (1861–1865)—a period when the largest number of freedom runners entered Canada to find reprieve from subjugation, bondage, and brutal racial violence. However, as Brown's quote illustrates, freedom runners—like Black migrants and Canadian-born Black people—could escape neither the reality of devaluation, nor the state-sanctioned and popular hostility that was enacted on all Black lives in Canada. For Maynard, "the image of Canada as a safe haven from racial intolerance was then, as it remains today, complex, multilayered, ambivalent and equivocal." Building on decades of Black liberation activism and scholarship, *Policing Black Lives* offers an important corrective, combating the "social amnesia" behind Canada's veneer of multiculturalism and tolerance. Maynard's work firmly situates state-sanctioned violence and the concerted neglect of Black people within Canada's history.

In Maynard's words, the main focus of *Policing Black Lives* is to make anti-Blackness "legible" for activists, policymakers, students, and concerned community members. Specifically, she believes that there is a paucity of literature that addresses "in one place" how state policies and institutional practices shape the experiences and material conditions of Black life in Canada. By placing the "enormous, unparalleled power" of the state at the centre of analysis, Maynard's study illustrates how domination is structured at the systemic level of social institutions, rather than a matter of individual pathology. Understanding the rationale and cultural mechanisms of endemic anti-Black racism is, therefore, central to any understanding of Canadian history.

Maynard traces the genealogy of anti-Blackness in Canada, beginning her study with the global and historical roots of the devaluation of Black lives that started in 1444, with the transatlantic slave trade, and sketching out the historical contours of anti-Black racism as it developed in Canada. This analysis unpacks the practices of slavery in seventeenth-century New France and eighteenth-century Nova Scotia; nation-wide segregation that ran parallel to practices in Jim Crow America; unequal access to the economy, education, and housing; and heightened exposure to police surveillance. Here, Maynard reminds readers that Canada's colonization was premised upon an explicitly white supremacist racial hierarchy that required careful engineering, through both a violent settlement project and racial slavery. The conditions of Indigenous and Black life today can be traced to this initial project; its logic has been embedded in state practices and institutions for centuries. Although *Policing Black Lives* traces the realities of anti-Blackness in Canada, Maynard asserts that Black and Indigenous oppression are historically and currently connected and, where relevant, she draws parallels and distinctions between the forms of state violence that target these communities. We can look forward to Maynard's insights on the entangled legacy of Black and Indigenous histories and struggles in her 2022 publication, with Leanne Betasamosake Simpson, titled *Rehearsals for Living*.

One of the many strengths of *Policing Black Lives* is its ability to demonstrate how the matrix of domination is structured on several levels. The chapter, "Law Enforcement Violence Against Black Women: Naming their Names, Telling their Stories," shares the individual stories of Black women who experienced abuse at the hands of law enforcement officials in recent years. Maynard retells the story of a 26-year-old Black transgender woman, Chevranna Abdi, who died in police custody in 2003. The media coverage of Abdi's highly suspicious death, while in the custody of Hamilton police, was framed by her HIV status, race, and gender identity. Specifically, news outlets referred to Abdi as an "HIV-positive transsexual" and "either a prostitute or a drug dealer," and her death as a "drug-fueled melee." Through Abdi's story, Maynard demonstrates how "Black transgender women often live at the intersection of both the societal demonization of Black women and a societal hostility toward transgender persons." Here, she illustrates how the interlocking systems of race, gender, and class oppression are part of an overarching structure of domination within Canada. As Patricia Hill Collins reminds us, this structure penetrates many layers: personal biography; group or community context created by race, class, and gender; and the systemic level of social institutions.

Likely owing to her experiences doing outreach, advocacy, and organizing within marginalized and criminalized communities, Maynard's bibliography brings together traditional academic monographs alongside reports from community organizations and social movements on the ground. Histories of resistance are threaded throughout the volume and are the focus of her final chapter, titled "From Woke to Free: Imagining Black Futures." Maynard explains that although stories of Black refusal, subversion, creativity, and resistance are not the focus of *Policing Black Lives*, she hopes that in recognizing the structural conditions of Black suffering we will be better placed to challenge them.

By demonstrating in painstaking detail the ways the state—federal and provincial governments; government-funded programs such as schools, and social and child services; and the enforcement wings of state institutions—acts to defend and maintain inequitable social, racial, and economic divisions, *Policing Black Lives* is a significant contribution and important entry point for those interested in racial formation in Canada. Maynard's prose is accessible and her book provides vivid, unsettling historical context for nearly four hundred years of anti-Black racist practices.

RACHEL LOBO is a Ph.D. candidate in York University's Faculty of Environmental and Urban Change. Her research examines how archival spaces can effectively serve communities and create historical agency. Specifically, she is interested in how photographic archives can sustain histories of political struggle and foster the exchange of intergenerational knowledge. In September 2022, Rachel will begin a SSHRC Postdoctoral Fellowship with the Women and Gender Studies Institute at the University of Toronto.

The Invention of Nature: Alexander Von Humboldt's New World

By ANDREA WULF. Alfred A. Knopf-Penguin Random House, 2015. $35.00 USD

REVIEWED BY SCOTT LILLICO

The Invention of Nature: *Alexander von Humboldt's New World* takes the reader on a historical journey through the life of Alexander von Humboldt (1769–1859), an ecologist quite famous in his time and an influence on modern understandings of ecology and science. The author, Andrea Wulf—a historian in London—illustrates pockets of history, bringing meaning to Humboldt's experiences. *The Invention of Nature* focuses not only on Humboldt's life story, but also on well-known figures in history who he interacted with, including the German poet Johann Wolfgang von Goethe, Charles Darwin, Queen Victoria, Napoleon Bonaparte, and other leaders, politicians, scientists, and explorers of Humboldt's age.

While Humboldt struggled through a politically contentious time amongst the European powers, we presently live in an environmentally contentious time where anthropogenic climate change affects our ecological and political systems, and threatens society with uncertain futures. Between Canada's lack of proportional representation in government, the wake of the former reality television star United States President, and Britain exiting the European Union, democracy is being challenged and environments seem like a low priority.

When he was young, Humboldt displayed a strong wanderlust for adventure, studying Captain James Cook's expeditions. In London, after attending the University of Göttingen, Humboldt met Joseph Banks, the botanist who accompanied James Cook on his first journey around the world. Humboldt's mother insisted that he study to become a government official, an idea he detested, yet he abided by her wishes initially.

He eventually pursued his own scientific agenda through a several-year expedition across parts of South and Central America, the Caribbean, and continuing north to today's Mexico. One of his observations on this voyage was how human activity prompted environmental change in Lake Valencia, Venezuela. On the way home, Humboldt's group survived sailing through a hurricane and then stopped to discuss some of his findings with President Thomas Jefferson in the United States, who was interested in science and particularly enthusiastic about agriculture. By the time Humboldt returned to Europe, he had collected close to 60,000 plant specimens; about 2,000 of these species were new to botanists in Europe—a very significant number of specimens and new species for the time.

One of the issues that *The Invention of Nature* raises is how modern environmental exploitation still goes unchecked, when environmental impacts linked to colonialism were already being criticized in Humboldt's time. Do today's sustainable standards like Rainforest Alliance, Fair Trade, and Certified Organic meet the needs of both the Western world and the Global South, or is modern environmentalism repeating and reorganizing concerns that were criticized ages ago?

One of Humboldt's popular works, *Essay on the Geography of Plants* (1807), helped to describe the ecology of plants and their connected regions. In Wulf's words, "Humboldt now presented relationships between plants, climate and geography. Plants were grouped into zones and regions rather than taxonomic units," which was uncommon for the time. Another of Humboldt's works, *On the Isothermal Lines and the Distribution of Heat on the Earth* (1817), became a popular study of climate patterns.

Charles Darwin was strongly influenced by Humboldt during his time at the University of Cambridge. Young Darwin copied out passages of Humboldt's books and recited them during university botanical excursions. Fueled by Humboldt, Darwin's enthusiasm eventually resulted in his own voyages overseas.

The Invention of Nature is well-organized by breaking up Humboldt's life into different sections; illustrations, maps, architectural and design drawings, and pictures convey a detailed visual image of the times. Parts of the book read more slowly than others, perhaps because of the volume of historical information.

Towards the end of the book, Wulf emphasizes Humboldt's impact and sets a nice tone for his contributions, writing, "[i]n a world today where we tend to draw a sharp line between the sciences and the arts, between the subjective and the objective, Humboldt's insight that we can only truly understand nature by using our imagination makes him a visionary." For more information on the research and discoveries of Alexander von Humboldt, start with his publications: *Essay on the Geography of Plants, On the Isothermal Lines and the Distribution of Heat on the Earth*, and *Cosmos: A Sketch of a Physical Description of the Universe*. *The Invention of Nature* is inspired not only from Humboldt's adventures and discoveries, but also from the many people connected to him. Environmentalists, scientists, explorers, and academics can all benefit from this window into history and memories.

SCOTT LILLICO is a graduate of York University's Bachelor of Environmental Studies program. He is a photographer and explorer of nature and environments of all kinds. His research interests include ocean studies, organic agriculture, biodiversity, and animal geography.

Contributors

Wesley Brunson is a poet and Ph.D. candidate in sociocultural anthropology at the University of Toronto. His writing can be found in *Anthropology & Humanism* and in the anthology *A Day Is a Struggle*. Wes grew up in Minneapolis and lives in Toronto.

Oonagh Butterfield is an interdisciplinary artist-academic, currently rooted in Toronto. Her most recent project, her graduate work in Environmental Studies at York University, uses puppets and illustration to explore visions of multispecies ethics in urban space. Outside academia, Oonagh co-manages her family's bakery where she is an active member of the Toronto-Danforth community, and a constant advocate for food system change. Whether through art, research, or small business, Oonagh's interest is in the creation of accessible and just platforms for deepened environmental thought and engagement.

Angela P. Harris is a Distinguished Professor of Law at the UC Davis School of Law (King Hall). She has previously taught in the law schools at UC Berkeley, Stanford, Yale, Georgetown, and the State University of New York at Buffalo. She is the author of numerous influential articles and essays in the fields of critical legal theory, feminist jurisprudence, and criminal law, and is a prolific co-author of casebooks. Harris received her bachelor's degree from the University of Michigan, and her master's degree in social science and J.D. from the University of Chicago.

Sophia Jaworski is a Ph.D. candidate in Anthropology and the Women and Gender Studies collaborative program at the University of Toronto. Her research problematizes environmental illness by reimagining how volatile organic compounds and petrochemical exposures are embodied and figured as toxicants by technoscience. Her dissertation uses feminist science and technology studies and disability justice frameworks to explore the connections between chemical sensitivities and low-income rental housing in Tkaronto, issues she is also involved in organizing and advocating around.

Benjamin J. Kapron is a Ph.D. candidate in York University's Faculty of Environmental and Urban Change, exploring how he might develop and inform his decolonial and ethical praxes, as a settler, through understanding Land to be a decolonial agent and teacher. Ben looks to learn particularly from Lands where he has lived, namely, Baawitigong / Sault Ste. Marie, Nogojiwanong / Peterborough, and Tkaronto / Toronto. In his work, Ben aims to bring into conversation environmental ethics and philosophy; decolonization, Indigenous studies, and settler colonial studies; and critical environmental thought challenging human exceptionalism and exemptionalism. Ben is a member of the *UnderCurrents* Editorial Collective, working as a Managing Editor of this volume.

Kelly King is an educator, artist, community builder, and facilitator. Her maternal ancestral roots come from Scotland and England and her paternal ancestral roots come from Poland and Latvia. Graduating from York University's Master of Environmental Studies program in 2017, Kelly's research focused on ways in which to discuss Indigenous histories of Toronto, as well as settler identities, through community arts practices. Kelly is passionate about creating spaces to engage youth on topics such as Indigenous rights, environmentalism, and embodied reciprocity. Through Indigenous approaches to learning, Kelly believes that by localizing our environmental perspectives and relationships, we can collectively make global differences. She is currently residing in Nogojiwanong / Peterborough, Ontario, where she is working as the Education Director for TRACKS Youth Program, facilitating spaces for youth to connect with mentors and learn about Indigenous Science.

Madeleine Lavin is a Toronto-based freelance writer and editor. She received her Master of Environmental Studies from York University in 2019. Her major paper, *B is for Bug, O is for Oikos*, pairs scientific study and phenomenological exploration in looking at human-arthropod relations in the context of modern, North American homes. Madeleine is a passionate researcher whose interests span many topics including, but not limited to, multispecies studies, education, entomology, natural history, environmental humanities, ethics, and philosophy.

Garance Malivel addresses the intersections of environmental justice, gender justice, and environmental health through interdisciplinary and action-oriented research methodologies. After working as a cultural organizer, Garance completed a Master of Environmental Studies at York University (Toronto), during which she collaborated with the Wylie Lab (Northeastern University, Boston) on participatory research projects assessing the community health impacts of petrochemical production in North America. Garance is currently completing a Ph.D. in the Faculty of Environmental and Urban Change at York University, focused on intergenerational environmental justice and the development of anticipatory mechanisms in environmental governance processes.

Michelle Murphy is a technoscience studies scholar and historian of the recent past whose research concerns decolonial approaches to environmental justice; reproductive justice; Indigenous science and technology studies; infrastructures and data studies; race and science; and finance and economic practices. Murphy's current research focuses on the relationships between pollution, colonialism, and technoscience on the lower Great Lakes. Murphy is a tier 1 Canada Research Chair in Science and Technology Studies and Environmental Data Justice, as well as Co-Director of the Technoscience Research Unit, which hosts a lab and is a home for

social justice and decolonial approaches to science and technology studies. She is Métis from Winnipeg, from a mixed Métis and French Canadian family. (Source: https://www.history.utoronto.ca/people/directories/all-faculty/michelle-murphy)

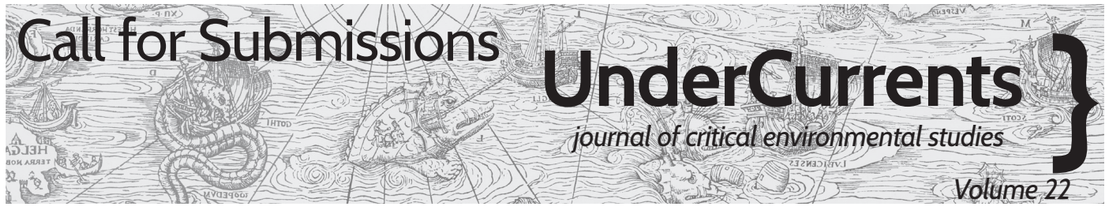
Usha Natarajan (Ph.D., MA, LL.B., BA) is Edward W. Said Fellow at Columbia University, International Schulich Visiting Scholar at Dalhousie University, Global South Visiting Scholar at the University of British Columbia, and Senior Fellow at Melbourne Law School. Her research is interdisciplinary, utilizing postcolonial and Third World approaches to international law to provide an interrelated understanding of the relationship between international law and issues of development, migration, environment, and conflict. Natarajan's research is recognized by several international awards and grants for international environmental law, migration and refugee law, and postcolonialism. She is widely published and serves on several editorial and advisory boards on these subjects. Natarajan was tenured at the American University in Cairo as Associate Professor of International Law and Associate Director of the Center for Migration and Refugee Studies. Prior to that she worked with the United Nations and its agencies in Asia and the Pacific, including with UNDP, UNESCO, and the World Bank. She is based in Amman, Jordan.

Naomi Norquay is an Associate Professor in the Faculty of Education at York University. She has been researching the Old Durham Road Black pioneer settlement for the past 15 years. Using a combination of oral history, archival research and walking the land, she investigates not only the historic presence of this community but also the ways and means by which it disappeared from the local historic narrative. She currently serves as president of the Old Durham Road Pioneer Cemetery Committee and co-edits *Northern Terminus*, a community journal dedicated to Black history in Grey County, published through Grey Roots Museum and Archives.

Jaz Papadopoulos is an interdisciplinary artist working in experimental writing, installation, and video. They are interested in diaspora, bodies, place, memory, grief, and ritual. A graduate of the Cartae Open school, Jaz is also a Lambda Literary fellow and holds an M.F.A. from the University of British Columbia. Jaz lives on Coast Salish land. Follow their work at vimeo.com/jazpapadopoulos or on Twitter @scrybabybaby.

Fernando Silva e Silva is a Brazilian researcher, translator, and teacher. He holds a Ph.D. in Philosophy, an MA in Language Studies, a BA in French Language and Literature, and a BA in Philosophy. In the last few years, he has been writing and teaching at the intersection of science fiction, environmental studies, metaphysics, history of sciences and philosophies, and anthropology. He is concerned with issues such as the many ecological crises, the history of conceptions of Nature, the modernity/coloniality project, and the relation of politics, philosophy, science, and fiction. He is also one of the founders of a collectively-run research and teaching association called Associação de Pesquisas e Práticas em Humanidades [Association for Research and Practice in the Humanities].

Angie Lea Tupper is a visual artist whose current practice explores personal fantasies and memories through the lens of imaginative realism. She has displayed her work in twelve group shows across the Greater Toronto Area, and two in Florence, Italy. Angie graduated with Distinction from OCAD University's BFA in Drawing & Painting in 2017. She earlier completed two degrees in English, first an Honours BA at the University of Ottawa followed by an MA at the University of Toronto. Visual records have always been central to Angie's identity. The daughter of an immigration officer, she spent her childhood moving from one country to another every two to three years. Photographs and video recordings function to connect the transient scenery of her early life, beginning in Trinidad and Tobago, then moving on to India, Hungary, Pakistan, and England.



below

From the depths of Dante's *Inferno* to Verne's *Twenty Thousand Leagues Under the Sea*, subterranean and subaquatic environments have often been depicted as repositories of primordial forces and abiding secrets in the Western tradition. The much-repeated (if somewhat misleading; e.g. Copley, 2014) claim that humans have "explored" more of outer space than of Earth's oceans points to the mystique associated with the deepest regions of this planet. Though dramatic environmental changes are becoming increasingly evident all across the face of the Earth, we surface-dwellers can scarcely fathom what has been occurring below the ground and beneath the waves. In these deep places, rising temperatures deplete aquifers and destabilize sea beds; infrastructures (both old and new) wind through vast urban undergrounds; heavy industry delves ever deeper in its search for fossil fuels, rare earth metals, and geothermal energy; and plastics and other toxic contaminants come to settle among the extremophiles inhabiting the most remote reaches of the ocean.

In volume 22 of *UnderCurrents*, we invite you to descend with us into the depths of these lively underworlds, with all their buried curiosities and submerged contexts. We seek to explore what is going on beneath the surface in an effort to confront, expand, and/or interrogate existing understandings of the subterranean and subaquatic. We ask: How does the condition of being *sub*surface affect understandings of these physical environments and/or perspectives? We particularly encourage submissions that consider moments, places, and processes in which the subterranean and subaquatic interact. Possible areas of focus for submissions include, but are not limited to:

- Relationality, agency, cosmology, and personhood below the surface
- Sites of the buried (e.g., caverns, crypts, catacombs) and sunken (e.g., shipwrecks, urban/coastal flooding, underwater cities, seafloor mining)
- Indigenous knowledges, philosophies, and lifeways of underground/underwater worlds
- Black geographies (e.g., McKittrick, 2011) and abolitionist ecologies (e.g., Heynen and Ybarra, 2021) of the subterranean/subaquatic
- Milieu-specific analysis (Jue, 2020), terrestrial bias, and surface politics and their refractions (following Todd, 2018) through underground/underwater environments
- Socio-ecological impacts of extraction and discard in subsurface environments (e.g., Montoya, 2016)
- Bodily relationships, metabolism, and the deep as bowels, entrails, and/or 'guts'
- Oceanic, abyssal, and Tehomic agencies (e.g., Keller, 2003; Mentz, 2015)
- Limit biologies, extreme ecologies, and life in the deep
- Bodies as water-bodies and mineral-bodies in subterranean and subaquatic pedagogies, ontologies, and epistemologies

Submissions related to the subterranean and/or subaquatic that may reflect or diverge from the suggested thematic areas above are also welcomed. We invite both scholarly and creative work, including essays, poetry, photographs, visual submissions, video, audio, mixed formats, and more. In addition, we invite reviews of relevant books that may fit within the theme of this issue.

All are welcome to submit; we especially encourage submissions from applicants who are Indigenous, Black, racialized, women, 2SLGBTQ+, disabled, poor, and/or otherwise on the margins.

The deadline for submissions is:
Scholarly and Creative submissions - Oct. 1, 2022, 11:59pm ET
Book Reviews - Jan. 15, 2023, 11:59pm ET
Please follow submission guidelines at:
http://currents.journals.yorku.ca/index.php/currents/about/submissions

UnderCurrents *is a collectively- and student-run academic journal based out of the Faculty of Environmental & Urban Change at York University in Tkaronto / Toronto, Canada.* UnderCurrents *explores relations among environment, culture, and society. We are committed to publishing a variety of scholarly, creative, and activist work that critically engages with conceptions of the environment and seeks to break down traditional interpretations of the world around us. All back volumes are available, free of charge, on the* UnderCurrents *website.*

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