

ARTWORKS FOR
JELLYFISH
AND OTHER OTHERS



Edited by
Amanda Boetzkes
& Ted Hiebert

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ARTWORKS FOR JELLYFISH AND OTHER OTHERS

Amanda Boetzkes & Ted Hiebert

This book is haunted. We make this statement with a sense of unease but also with a sense of curiosity. Our words are haunted by the complex social and political intensities that animate our current time. But they are also haunted by the possibilities for thinking about art in the future. Or more precisely, in the futures: in the worlds that are opening up to those unknown beings that are making themselves known in our writing. This book is destined to circulate as a concluded object, representing voices from what will soon be the past. But it is also giving voice to thoughts, ideas and expressions that might refuse to die even when they are dislocated from the bodies that once spoke them.

If there are ghosts, residues, extraneous presences, and queer desires that cling to our thinking about art, this is in part because our time is so troubled. The essays in this book were written in the throws of the coronavirus pandemic, in the heat

of climate change, in the midst of the sixth mass extinction event and the corruption of a new war that hypostatizes a global patriarchal military regime. The question of who (or what) returns to haunt us in and through art is, quite literally, another matter. Or rather, it is *other matter*: other to the facts that define scientific causes, or the affected repetitions of cultural theory that fortify the discourse of the Anthropocene.

What haunts this book, and what haunts art more broadly, is otherworldly, even if it is interleaved with our words, poetics, knowledge and aesthetic sensibilities. This other matter appears to us in alienated forms, from unknown origins, an otherness that is quite distinct from any trope of the Other that binds it to a human subject position. It signals that we are among *other* others. We can't put our finger on any singular totality that haunts us—hence the unease. But we can say that our avenue into the question of what troubles us was an exercise in thinking about artworks for jellyfish.

The artist Mark Dion opened a lecture in 2015 with a statement that has now become an unfortunate truism, that humans are quite literally ruining the planet for ourselves because of resource depletion, global warming, climate change and environmental toxicity. Dion's lecture recapitulated Rachel Carson's original formulation of environmental contamination as self-destruction in her 1962-book *Silent Spring*. She opens the book with a chapter called "A Fable for

Tomorrow,” in which she vividly describes an idyllic American town that succumbs to an “invisible curse” which rips through the environment, eliminating life in its wake. Animals, adults and children fall ill, the vegetation browns and withers, the insects disappear and there is no bird song. Instead of the plenitude of life, there was “a strange stillness.” The spring is silent because a chemical contamination (DDT) had invaded all life right through to its cellular structure. Carson ends the devastating scene commenting, “No witchcraft, no enemy action had silenced the rebirth of new life in this stricken world. The people had done it themselves.”¹

But Dion also recast this self-condemnation. Strangely, he said, although we are inflicting damage on ourselves, this destruction is not equally terrible for all species. While humans might be sealing our own fate—and surely the fate of many species—we may be actively creating a world that is conducive to the thriving of *jellyfish*.

Dion’s provocation stems from research by the biologist Jeremy Jackson, who argues that the synergistic effects of mass extinction lead to the flourishing of some species—such as jellyfish—over others.² This uneven progression of species extinctions upsets even Rachel Carson’s formulation of a chemical toxin as having a symmetrical domino-effect on ecological relations. If humans have caused the current extinction event and our own self-destruction, the issue of who or what beings flourish in our wake is nevertheless as telling as it is unsettling. Moreover, as many critics have convincingly argued, the concept

of the Anthropocene generalizes the origin of contemporary extinctions in “humanity” rather than in a specific group of humans and its knowledge system. European settlers and their deployment of plantations, transpecies slavery, and capitalism must be understood as the origin of a specific ecology of death. Responsibility for extinction cannot be upheld by a total generalization. The naturalized concept of “humanity” that underpins the discourse of the Anthropocene is therefore under scrutiny here. In fact, we would jettison it altogether in order to imagine how the ecological predicament registers as art after the supremacy of the human.

A jellyfish bloom has an ambivalent appearance in this context. Are these survival species profiteers? Or are they prophets of a new epoch? Their thriving is both utopian and dystopian; archaic and futuristic. It signals the end of the regime of the human, with its oppression of what lies outside the parameters of its world, and the rise of other others. But it also calls on us to question the concept of the human in more rigorous terms: what ecological relations have been subsumed into the generality of “the human”? And how, in turn, do these relations invite us to understand the diversity of humans that succumb to the biopolitical formulation of that term? The connection between colonial capitalism and the flourishing of survival species is not obvious. So we wonder how art cultivates a sense of responsibility, even a sensibility, for those who will occupy the planet after our species. We also wonder what kind of art those who succeed us will make.

The thriving of some species under the conditions of mass extinction is almost certainly not what Joseph Beuys had in mind when he spoke so eloquently of how “everyone is an artist” and that together we are creating the “total artwork of the future social order.”³ But what would happen if we brought together these two perspectives? We are living in what, for Beuys, would have been the future. *We are in the future ecological order.* Is the Anthropocene an unintentional human effect, or the opposite, an artwork of geological scale? Is it both? We imagine the planet as a tombstone. What will be written on its epitaph? And who will be the ones to read it?

The planet seen as a total artwork of the future may not make for a very good artwork. But perhaps by understanding the cumulative effects of anthropogenic ecologies *as art*, we might open lines of critical and political inquiry that will change our perspective on what humans are doing as we create the order (or disorder) of the future. This possibility is allied with Marshall McLuhan’s declaration that “Ecological thinking became inevitable as soon as the planet moved up into the status of a work of art.”⁴ McLuhan was referring to the dawn of the space age, and the rise of satellite images of the earth from outer space. The satellite perspective induced a widespread sense of the isolation and the frailty of planetary life. But McLuhan’s reflection also corroborates his famous dictum that “the medium is the message.” The ecological perspective is entirely mediated by a system of perceiving and imaging that could be considered a

form of artistic production in its own right, though it has an efficacy that is not exclusively human. At least, the image of the “blue marble” is not reducible to any concept of art that limits it to human parameters. Art is always informed by what appears through it from its outer space.

It might be more accurate to say, then, that the lines of speculation that inform this book pursued us from the exteriorities of art, rather than from its internal ecologies. Indeed, to return to our opening, each of the authors describes being haunted in some way, by some alien agent, some unknown world or some alternative time, and indeed by the future itself.

We can identify at least three registers of haunting that span these chapters. We gravitate toward the concept because it allows us to see the knotting of different scales of voice, time and experience. Haunting, then is not just “trouble” of the kind that Donna Haraway calls for us to “stay with.”⁵ The haunted spaces of this book stay with us of their own volition. They make the past materially present, so that the “present” is not a temporal concept at all but one that requires presence in order to be experienced. But as much as the past becomes present, our experience of it is also painful. We are reminded here of Nietzsche’s statement in the *Genealogy of Morals*, “If something is to stay in the memory it must be burned in: only that which never ceases hurting stays in the memory.”⁶ What haunts us also hurts, and it

is with a diligence to this pain that we assemble this book.

That experience of pain and responsibility is the first register of haunting. The anthropogenic world—the one whose uneven distribution of power and knowledge we experience so acutely—haunts the futurity of an ecological imagination. Climate crisis, environmental injustice, cruelty and extinction (the litany) are human-made. Even if some of us rightly refuse our own personal complicity with this act of making, we are nevertheless haunted by its effects. The climate is in crisis; environmental injustice is rampant; the future of the human world is not just troubled or in trouble. The trouble is here to stay; it haunts us now as our very future.

To acknowledge that living haunted is not optional but simply a matter of fact is (and should be) a humbling experience. This book is not a call to make new theoretical quandaries but to establish lines of communication with what haunts us—to create a second order of haunted living in which one understands oneself as already implicated in futures to come. The future is, in any case, an already haunted concept—not the neoliberal space of potentiality or the humanist space of enlightened ideological resolution but something else: the materialization of colonial claims to the future, taking shape with all the conceit of a rubric of the “human.” A self-replicating territorializing of time, a terrorizing of temporality itself that seeks space for contingencies of sustainable presence. At its best, this form of haunting is a call to listen to the

voices that already call out from the future—human or not—and to realize with a decidedly literal sense of pragmatism that an orientation towards them requires a dialogic attitude towards the future's presence. The very concept of futurity is one that makes ghosts of the present that is present to us.

That is the second register of haunting—the call for a relational understanding of time as an ecological concept already embedded in the future-forming consequences of the present moment. The future's haunting of the present requires a reorientation of those tired deterministic concepts of progress and achievement, away from their possessive immortality and towards an awareness that the future may not be ours to shape but will instead be inherited by those with no particular loyalty to the intentionality of the present.

This brings us to jellyfish—or more broadly to the idea of creative dialogues with haunted futures—as the anchor concept for this book. Whether the future belongs to jellyfish or to other others is less our question than how to reorient our own ways of thinking in order to attend to the challenge of building, reflecting, collaborating, and advocating towards the worlds of tomorrow. There is a certain abandon to the concept—an abandonment of individual or self-possessioned control that is the necessary condition of attuning to the possessing forces of others. So the book is an exploration of the contingencies of the present that are the pathways into other possibilities beyond those simply reproducing the fatalistic script of social and

ecological destruction. We ask, what is it to haunt and be haunted to the point of losing ourselves and finding ourselves otherwise?

This third register of haunting has no necessary or definitive form but is marked by a particularly reflective intensity to such engagements with others. It responds to an insistence on making connections with entities that live beyond human scales and conceptions of engagement. The essays that comprise this volume are not to be taken as conclusive statements on the futurity of art but as emblematic of a mode of enmeshed thought that reads itself into the manifestations of the world to come. Artworks for jellyfish are assertive and positional statements—an artwork must constitute itself as an object, after all, even if only an object of speculation. And yet each also has an awareness of itself as a node in a larger context—ecological, temporal, political, aesthetic, and more. Indeed the undulating dance of the jellyfish demands movement, tides, current, direction—somewhere to take us (as readers) and somewhere to imagine (the futures to come). These are haunted voices that understand themselves as speaking from within a precarious present and addressing themselves towards a future they may not witness and can thus only haunt in anticipation.

Within the chapters that follow, the authors engage the future of other others from many distinct positions, and toward differing imagined destinations. They create a decolonized time, in which the traumas of settler violence have been put to rest. They ghost-write and are ghost-written. They show us

how painful it is to be deflected from a lover like light through a prism; to be blown in all directions like so many particles, yet left alone in solitude. Desire can isolate while nevertheless rendering one porous. They span the boundaries that distinguish science, art, and gender in order to understand the transformation of birds as they prepare for migration, thus redefining an approach to bodies of knowledge. They present the vitality of mud as it expands under the pressures of a microbial world. They think about the relationship between a herd of bison and a rubbing rock, across seasons and geological time as a metaphor for a trust-fall into the future. They probe the colonial discourse of weeds and find a profusion of knowledge and wonder from the most unwelcome of plant species. They consider how other beings and bodies, from other times and alien places, use one's own body as an instrument to play sounds that estrange aesthetic form. They show the power of artistic media to recast the movement across generations, times, beings and places. They wonder whether a mine on Aboriginal land in Australia can be repositioned from the lens of art. They compel us with a kiss, molten magma, the mighty Shiva and an atom, and call it falling in love. They summon the plurality of the queer future from the geotrauma of glacier melt. And they wonder how to restore the ecologies of cephalopods in Japan by speculating about the Zen non-consciousness of jellyfish.

Taken together, these essays form the beginnings of a conversation with the futures that will come to be and the ways in which the motivations and

engagements of the current moment might yield a prescient sensibility to help shape the presences of tomorrow. Artworks for jellyfish and other others invite us to dwell on the configurations of an imagination to come.

NOTES

- 1 Rachel Carson, *Silent Spring*, 1962 (Boston: Mariner Books, 2002), 3.
- 2 Jeremy Jackson, "Ecological extinction and evolution in the brave new ocean," *Proceedings of the National Academy of Sciences of the United States of America* (PNAS) 105.1 (August 2008). <https://www.pnas.org/doi/10.1073/pnas.0802812105>
- 3 Joseph Beuys, as cited in Laurie Rojas, "Beuys' Concept of Social Sculpture and Relational Art Practices Today," *Chicago Art Magazine*, November 29, 2010.
- 4 Marshall McLuhan, "At the moment of Sputnik the planet became a global theatre in which there are no spectators only actors," *Journal of Communication* 24.1 (1974): 48-58.
- 5 Donna Haraway, *Staying with the Trouble: Making Kin in the Cthulucene* (Durham: Duke University Press, 2016).
- 6 Friedrich Nietzsche, *On the Genealogy of Morals*, Translated by Walter Kaufmann and R.J. Hollingdale, (New York: Vintage, 1989), 61.

1

GHOSTS OF PAST FUTURES

Terrance Houle

In the future, I am a ghost. I decided that it would be better to die as an artist and haunt you all through my own work. “Fuck you, art world!” RIP Terrance Houle.

GHOST DAYS

*Mountains of the dead, are you listening?
You're gonna lose a lot, now that
the lightning has passed you by.
You've already lost so much, now that
the moon has passed you by.
All the good things are asleep in the human world
It makes more room for the dark to walk around.
Speak to all my friends,
whose names I can't remember now...¹*



My mother is Kainai; her name is *Natoyeebotahkii*, Sacred Soaring Bird Woman. My father is Salteaux; his name is *Nausea Noon*. I am *Inniwahkiima*, Buffalo Herder.

My ancestors are ghosts in the present. I make art and offer it to them and they in turn haunt my artworks. Sometimes they take my work as an offering. Sometimes they make themselves present through sights, sounds, and conspicuous silences. I make them present from an invisible time and place. My work moves through time to mediate my ancestors to those who know how to experience my art. But then I decided I wanted to be a ghost of my own past future. That is how *GHOST DAYS* started.

In my photographs, I conjure the ghosts of my ancestors who live in a different timeline. Through a process of hauntology, they appear to us from an estranged past; one that was buried and that we didn't know was there. This is also a time that shows us what would be; how things are different than we think they are now, because the ancestors occupy the future. In their time and in the future, I am already there with them. We are together beyond the grave. So in my photographs, I show how "the world of the dead would follow you."

Seven-generations thinking moves me through cycles of turning back to my elders and looking forward to imagine myself as an ancestor to future generations. My work orbits through these times,

Terrance Houle, *I-XL Brick Factory*,
photograph, 2017.

across the world of the living back to the world of those who have passed, and then forward to those I will haunt.

In *GHOST DAYS*, I am already in my afterlife, an elder who haunts my photographs as a ghost.

THESE BRICKS

In 2017 I did a performance called *These Bricks* at the old I-XL Brick Factory in Medicine Hat. I crushed bricks that I-XL made for the residential schools my parents went to and even ones from my own Junior High, King Edward in Calgary, Alberta.

Treaty 7 was signed in 1877 and is upheld over the entire territory of Southern Alberta. After the Treaty was signed my people, the *Kainai*, moved west of Medicine Hat to Belly Buttes.

The Medicine Hat Brick and Tile Factory, which eventually became I-XL, was built in 1886, nine years after the signing of the Treaty. It was founded by a family who discovered a gas well on their property. The free-flowing gas meant that they could make as much brick as they wanted without having to buy or transport gas for baking it. The family mined the red clay in the hills around the area and produced the bricks used for the settlement of Western Canada, from B.C. and Alberta to Saskatchewan and Manitoba. Today, it is the oldest industrial site in Alberta.

The factory operated in full force, selling building products and masonry supplies until a flood left it irrevocably damaged in 2010. The flood was completely unexpected; the building was full of raw

brick set out on rail carts, ready to be run through the kiln. Torrential rains made the Bow River rise up and engulf the factory. The bricks were washed out and melted into the silt on the ground. All the equipment was fused into position, and still sits poised for use as though stuck in time.

The factory was converted into an artist residency and a historic museum at the Medalta site, where the clay was extracted. I was commissioned to do a performance there. I-XL had made the bricks that built St. Paul's Anglican Residential School, where my mother, grandmother, and great grandparents



Terrance Houle, *These Bricks*,
performance documentation, 2017.

went. My mother didn't go to day school; she had to live there. My father is also a third-generation residential school survivor. He went to Sandy Bay Residential School in Manitoba, which burned down in the nineteen-nineties.

I wanted to get my parents into the I-XL space for my performance. I wanted to reclaim these bricks that represented their residential schools; to pulverize them and return them to the land. So Medalta recreated the bricks that were used in my parents' residential schools. I had an original one from my own junior high, King Edward.

My father is a Sundancer, so he has the rights to give names, drum and sing the Sundance songs. The Sundance is four days of dance and prayer. It's about dancing with the sun, not worshipping the sun. The Dancers don't eat or drink for those four days; they just sweat and dance and they sleep outside. They pierce the skin of the chest with wood or bone hooks and entreat the spirits to take pity on them. Then, at the end of the Dance, they pull out the tied piercings to break their fast.

For the performance, my father sang two Sundance songs: one of them is the Horse song and the other is a Warrior Rally song. These songs were used to get the warriors to get up and dance; to stir them up to continue the Sundance. My father said "I'm going to help you. I'm going to sing these songs to give you the strength." I did an art-trade with Sonny Assu and he gave me a custom-made drum. The drum is based on a woollen point-blanket that was given by the *Niitsitapi* (Blackfoot) to Prince Charles

when he visited Canada. Sonny gave the drum extra lacquer because he knew I was going to use it.

In the recording of the performance, my father and mother enter the factory. My father plays the drum and sings and my mother accompanies him. I am in the middle of the factory kneeling in front of a pile of bricks with a sledgehammer. There are only a handful of people in attendance. The film is shot from a ghost's eye perspective, so it seems like the camera is floating. There's an oddness to the scene, like everyone is performing to a ghost that floats around the factory.

I based my performance on the Sundance, exerting myself to the point of exhaustion as I hammered the bricks again and again, grinding them into dust. I knew I couldn't physically turn them back into clay. But I could crush them with my trauma and my anger, and with the generational trauma inherited from my mother and my father. I brought some catharsis through the act of pummelling these bricks that entombed my parents as children. These bricks imprisoned them, so it's as though the children were imprisoned by the very land that should have belonged to them. Through colonialism, this land that we have lived on and lived off of, got made into these bricks; these bricks into walls, and the walls into prisons for Indigenous children, for my parents, grandparents and great-grandparents.

It was a brutal performance. Smashing the bricks was a way to correct the past; an act from my generation and a gift to my parents and my ancestors. I almost broke my hand from the recoil of

the sledgehammer on the brick. I was shaking. But it wasn't just that my hands were hurting; it was also the sheer intensity of what I was doing. I was crying and sweating. In pain.

I hold up a pile of brick dust to the camera, to show the spirits what I had done so that they would take pity on me. My performance is not the same as the Sundance, but I wanted it to use my pain and my prayer for mercy. This piece is about suffering and



Terrance Houle, *These Bricks*,
performance documentation, 2017.

trying to lay the ghosts of the residential schools to rest. It is not reconciliation. It is reclamation.

I took the dust of the bricks outside and knelt to the ground, mixing it with the earth. I brought the stolen land back, returning the clay where it belonged to offer it to the ancestors. I gave my parents their land in the spirit world.

It was the first time my parents ever saw what I did. After the performance, my mother said, “I think I can move on now. Thank you, Son.”

This is what we have to do for that generation so that they can go into the afterlife without the burden of their suffering. I took that burden from my parents so they can pass on and return to their land.

GESTATION: A HAUNTING IN DAWSON CITY

*If you have ghosts
you have everything
In the night I am real²*

Out of the ashes of my career, after I disappeared from the art world, I started working with a friend: a psychic named X—. I talked with him about how I was haunted by my own artwork, and my past life as “Terrance Houle”. At the time, I was touring Canada, and my work was activating colonial spaces. But things started grabbing me by the shoulder and turning me around. I went to Dawson City for a residency and stayed in a haunted house. That’s when *Ghost Days* really started gestating.



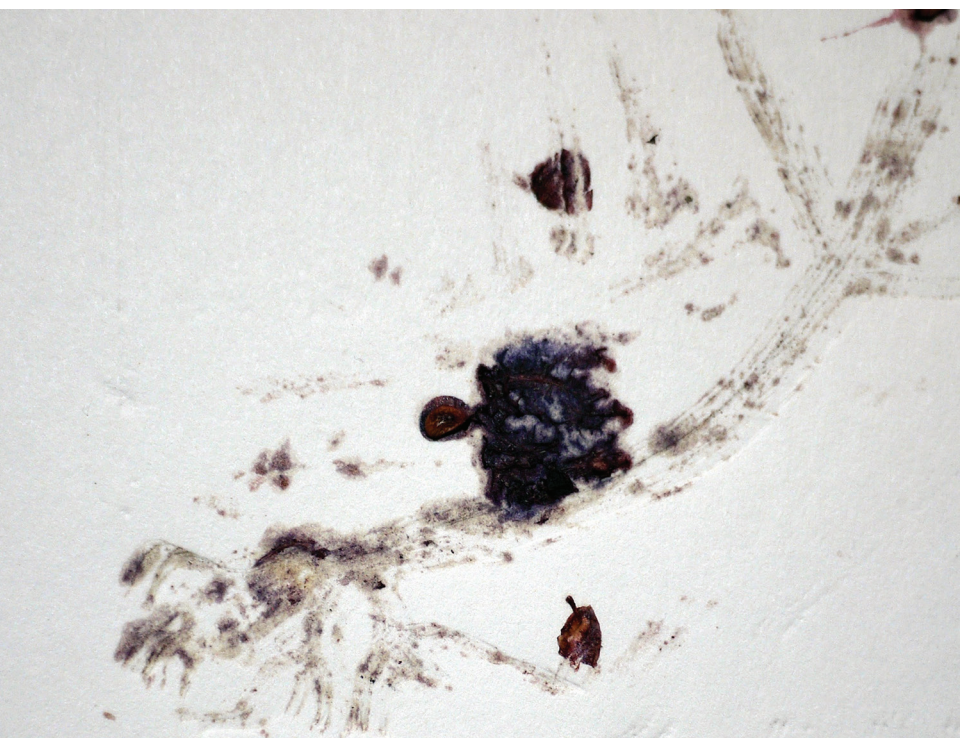
It was the summer of 2014, during the season of the midnight sun. Hauntings started. One of the people I was staying with in the house (I'll call him Z—) was Métis-Ojibwe. But Z was a self-identified sceptic, “I don't believe in spirits.”

For the weeks we were there, the ghosts shook him down. I had been here back in 2013, so I knew this place was haunted. You can always hear the sounds of people walking around and knocking from unidentified sources. But this was particular. Over this residency, I watched as Z was literally haunted by his own actions

Z was doing a series of linocuts, working with all the Indigenous plants in the area. So he was trying to draw the plants, cut them out and then print them out of plant materials. He went out to the Dempster Highway to get berries to use as ink for the printing. But the berries along the highway were all picked right away. At one point, he had to go back to Vancouver to get more for his prints. He came back and printed about fifty images.

Strange things kept happening. He kept coming over to ask me if I had been in his studio. Of course, I hadn't. I never go into another person's studio unless I'm invited. He was incredulous, and kept asking me. “I keep thinking you are going into my studio playing a joke!”

Finally, I said, “Are you accusing me of something? What’s going on in there?” He said, “I keep going into my studio, and the first print I worked on [the one made from berries before the trip to Vancouver] keeps appearing on my table. I keep thinking you’re putting it there as a joke!”



Terrance Houle, *Detail from one of Z's prints*, photograph, 2014.

I told him, "I AM NOT GOING INTO YOUR STUDIO AT ALL!" I had to laugh, though.

I asked him, "Is there anything else happening?"

"My bed keeps shaking!" he told me, "Is yours?"

"No," I told him, "it's not".

We had opposite working schedules; he worked in the daytime and I worked mainly at night. But the sun was out around the clock. The ghosts weren't coming from the shadows.

I asked him, "Have you done something?... *Did you put tobacco outside?*"



Terrance Houle, *Ghost Days (Chairs from the Ghost Camp)*, Dawson City, 2014.

He answered bluntly, “No ... should I?”

“Yeah, of course you should! Don’t you know that? As an Indigenous person, there are things you just have to do Where’d you get your inks? Where’d you get the berries?”

He paused, “Lots of different places...I went down to the graveyard. There were a whole bunch of raspberries and strawberries and I picked all those.”

I said, “Did you put tobacco down?”

“No.”

(Eyeroll) “*Man, those are for the dead! And you’re making ink out of it! And now you’re bringing spirits back into the house!*”

I made a tobacco mixture with him, because I had some Sundance mixture. I told him, “Go put it down there and tell them you’re sorry.”

That’s when I realized that my art could continue into the afterlife and be a performance for the living. I would die, and everything would switch over. *I would be a ghost conjuring the living as my performance.*

HAUNTED EDITION: THE SPIRITS TOOK MY SONG

I held a series of four workshops at the Banff Center in 2019. There were fifteen artists in residence there. I invited elders to come and take part in the workshops and engage with the artists. Through the workshops I turned my practice into an offering. That’s how I learned to create a haunted edition of my own work.

In the first workshop, the elders came and together with the artists we all created a song together and sang to the spirits. My parents and their Sundance

leader came to open up the spirit realm to give us safe passage to work in this manner. One of the elders led us in creating the song and I gave direction. We all had instruments to play and starting singing through call and answer. We synchronized as a group like a powwow drumming session.

We recorded an analog version of the song on a reel-to-reel recorder with a microphone in the middle of the room. I did a sound test as we started and the equipment was working. I was also recording it on my computer through the video function. But when we went back to listen to the analog version, the song was GONE.

The audio technician was gobsmacked: he said, “There’s only the sound of you counting everyone in and giving directions. But the singing and the music just aren’t there. It’s just your voice by itself.”

We had a 28-minute reel with nothing but the sound of me cuing people, and then the sound of the tape hissing. I had never even heard that sound before: tape with nothing on it. And when I went to my computer to play the recording THE FILE WOULDN’T WORK.

I told one of the elders about it and he knew exactly what had happened. “Oh, the spirits took it ... you know those ghosts!” My parents and the other elders said, “Well, isn’t that what you wanted? For the spirits to take your song? They took your song” Of course, that’s what I wanted. *But I didn’t think it was going to work!* It did though.

We did another song and then recorded that overtop the tape hiss from the original. We brought out 4H4s, AND recorded reel-to-reel, AND recorded

to my computer. That time worked and we got our song.

The next weekend, I had people go and take photographs around Banff. There are a lot of little ghost towns around Banff, so people went there and photographed these. Then they came back and we took the analog photography and I taught them how to develop it with a special solution that I created called “Cafenol” (made of coffee, Vitamin C and soda wash). We used the song recording and *played it into the Cafenol solution* so that we would agitate the spirits of the land through the lemon (Vitamin C) and the coffee. One of the elders came back to help. I asked everyone to develop one photo with the spirit solution and we would use these to make a silkscreen. Everyone’s photo came out with ghostly things in it.

The artists would silkscreen together two at a time and printed roughly 18-20 prints each, so that everyone could exchange and each person could come away with a haunted edition of all the photos. I made handmade paper with sage and sweetgrass and produced over four hundred sheets of paper for them to print their photos on. The paper was holy, because the sage and sweetgrass came from the Sundancers.

For the rest of the residency, the elders came back and did studio visits. We did a pipe ceremony for one of the artists who did a project surrounding the disappearance of her father in Venezuela. Her father was a political missing. She thought she had located his remains on a mountain in Venezuela and she had plans to go and get them and bring them to the residency and let his spirit go in the Rocky Mountains in Banff. In the end, the political situation was too



Terrance Houle, *Ghost Days*, 2019.

volatile and she couldn't bring the remains back. So we held a pipe ceremony for her. Joe, the elder who led the ceremony, said that he never would have imagined doing that ceremony in those mountains around Banff, since traditionally Banff was only ever a meeting place for Indigenous people, not a place of living and burial. It's the place of the dream-spirits and night-spirits; those spirits are a purple-ish blue color. People often have strange dreams when they do a residency in Banff and that's why.

At the end of the residency, the elders came and closed the way to the spirit realm for us. They did a blessing and took the haunted photo edition. Joe smudged one of the editions and put a cigarette on top of it, then we put it in the fire pit and burnt it. That way, we created a print edition for the afterlife. By burning it, we gifted it to the spirits. Now, all the residents have an edition, the Banff Center has one, and the spirits have one.

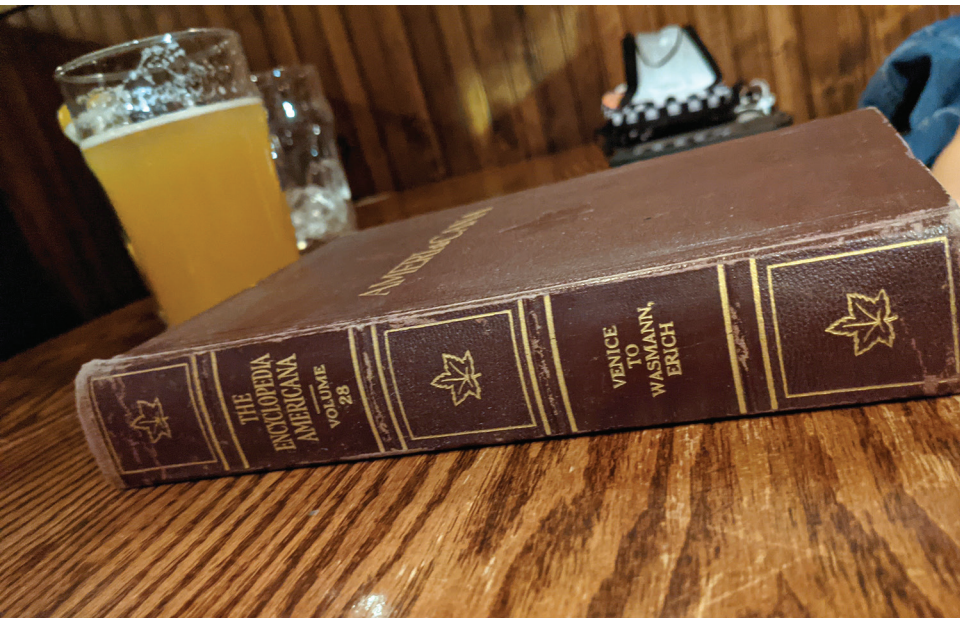
This was the beginning of my new practice for *Ghost Days*: art for my own afterlife.

CONTRARY

The contrary is a recurrent figure in Native Plains culture. A contrary is like a clown or a joker. Contraries think and act oppositely from everyone else. They talk oppositely: they say goodbye to say hello. They ride their horses backwards. They clean themselves with dirt and dry themselves with water. They wear burlap. And they are an important part of most ceremonies. They come into the ceremonies and

sweep away all the negative. They take the bad things away and clean the spaces.

I have always considered myself a contrary. My performances make reversals. I twist time around in order to put things in an opposite order; to see things differently. When the art world wants to see me a certain way, I disappear like a ghost. If I haunt you, I'm sorry



Terrance Houle, *A textbook from The Ship & Anchor pub in Calgary, Alberta*, photograph, 2014.

THE CONJURING: ART AFTER TERRANCE HOULE

The final performance of *GHOST DAYS* will be my grave. It must have a house built on it and a white settler family must live in it. The house will be built on an Indian burial ground—my own grave.

GHOST DAYS: an experimental art
adventure with film, video, performance,
photo and music to conjure spirits and
ghosts as collaborators!

Terrance Houle will attempt to raise the
ghosts of colonial and noncolonial histories
that exist as much in the light of night as
they do in the darkness of the day!

I am preparing myself for the future afterlife. I have become aware of myself as a ghost that will appear to upcoming generations. My work is a portal that I can travel through. As a ghost in my future afterlife, I will need a studio. *GHOST DAYS* already exists on the other side.

I am planning to build myself a house on an “Indian burial ground”; one that stands over my own grave. I’m building it so that I can have a studio in the afterlife.

Terrance Houle, *Sketches for a studio in the afterlife*,
drawings added to a textbook in The Ship & Anchor pub
in Calgary, Alberta, and then returned to the shelf, 2014.

idea of necessity is no excuse for overriding the limitations of the law upon its observance. In short, it must be a case of self-preservation and the injury or danger must be such as will not admit of the delay which a peaceful course of action would involve. The German manual, as well as many German text writers, draws a distinction between what they

call *Kriegsraison* and *Kriegsmanier*. The former, which may be translated as "the reason of war," allows a belligerent to employ any means or methods which are necessary to the attainment of the object of the war even though they are forbidden by the customs and usages of war (*Kriegsmanier*). In short, the limitations set to belligerent conduct by the laws of war may be regarded whenever they obstruct service, and hinder or defeat the attainment of the object of the war. Such a distinction is condemned by The Hague Conventions, by the United States, Great Britain and France, and by practically all writers outside of Germany.

The German war manual affirms that "every means may be employed to overcome the enemy, without regard to the object of the war, cannot be attacked, all means are perfect inventions and including those which destroy the most dangerous and those which destroy the most quickly the adversary, in order to attain the object of the war they must be considered, as indispensable, and, all things considered, they are the most humane." Nevertheless, it admits that, in the Christian spirit, the progress of civilization and especially the knowledge of one's own interest have led to voluntary relaxations the necessity of which has received the tacit assent of all states and of all armies." Von Moltke from whom the General Staff draws so many of its ideas, laid down the inadmissible principle that "the great benefit in war is that it should be terminated as soon as possible." For this purpose it is permissible to "employ all means except those which are positively condemned" (*dazu müssen alle, nicht geradezu verwerfliche mittel freistehen*). In short, the test of the legitimacy of an instrument or measure is not so much its humanity but its effectiveness in enabling a belligerent to bring the war to a speedy and successful termination. This view has recently found advocates in Generals Bernhardt, von Hindenburg, von Bissing and other German militarists and it is apparently the view of which the German government proceeded during the late war. Thus the Imperial Chancellor said in the Reichstag in March 1916: "Every means that is calculated to shorten the war constitutes the most humane policy to follow. When the most ruthless methods are considered best calculated to lead us to victory and a swift victory, then they must be employed." Again in a note of 31 Jan. 1917, handed to the Secretary of State of the United States, the German Ambassador at Washington justifying Germany's repudiation of the pledges given to the American government regarding the sinking

of merchant vessels (see *THE WAR*), and the defense of the position of international law, said: "The German government is now compelled to continue the fight for existence, forced upon it, with the full employment of all the weapons which are at its disposal."

The employment of new and powerful agencies of destruction or of new methods of attack is, of course, not to be condemned merely because they are new or because they are more effective than those formerly used. The true test of their lawfulness is whether they are humane, whether they can be employed without inflicting superfluous injury upon those against whom they are used, whether in the language of the Declaration of Saint Petersburg the effect is to "uselessly aggravate the sufferings of disabled men." The doctrine of the German militarists that the test of effectiveness, that is, it is permissible to employ any instrument, the use of which will contribute to the attainment of the object of the war, and especially the shortening of its duration, cannot be accepted. It is in fact rejected by nearly all military codes and is condemned by The Hague Conventions, and by practically all text writers outside Germany.

Turning now to the practice during the late war, we find that nearly every instrument, every method of destruction, forbidden by the Hague Convention and the customs of war was employed by one or the other of the belligerents, and many have the undeniable distinction of having made use of them all. Each belligerent carried out the other during the early months of the war of making use of both dumdum and explosive bullets and each vigorously denied the charge. Each claims to have renounced the field of battle large quantities especially of dumdum ammunition, and the French admitted that the Germans may have found such ammunition at Longwy, but asserted that it had been stored there before the war for target practice and that none of it was ever used against the Germans. The German emperor addressed a protest to the President of the United States against the alleged use by the English and French of bullets forbidden by The Hague Convention, and the President of France in a telegram to Mr. Wilson denied the charge and stated that the emperor's protest was designed to deceive the people of the United States. The French government also stigmatized as "the grossest forgery" what purported to be facsimiles of labels found on French ammunition boxes showing the presence of dumdum bullets. Count von Bernstorff, German Ambassador at Washington, filed a complaint with the Department of State, charging that bullets forbidden by The Hague Convention were being manufactured in the United States for shipment to England for use by the British forces. The department made an investigation of the charge and informed Count von Bernstorff that no evidence could be found in support of his charge. Nevertheless, it added, that if evidence could be furnished that any firm or individual in the United States was engaged in the manufacture of such ammunition for shipment to England or France, it would be glad to have the proof. None was ever furnished. While prac-

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Actual address is 668 -
A member of the beast

the beginning of an era of better understanding and mutual confidence. The war has placed before us, but it did not solve, the desire for national self-sufficiency to high tariffs, preferences and prohibitions; attempts were made to increase exports and limit imports at the same time. Trade was fostered by reducing consumption. That strange malady, xenophobia, fear of the strange, born of the war, manifested itself in passport regulations; the foreigner was made as unpleasant as possible. Large numbers of unemployed hampered freedom of migration.

The progress of the other principal belligerent nations is dealt with under their respective flags. It only remains here to survey briefly the smaller states. The three small republics of Estonia, Latvia and Lithuania, are composed of people carried out of the old Russian Empire. All three are members of the League of Nations their continued existence may be reasonably safe. Since 1921 they have been accorded all the recognition of independent nations and made remarkable progress in industry and social legislation. Their natural resources are valuable and they possess small mercantile fleets and good harbors. All the land belongs to the state and is divided among the peasants; the great estates of former Russian proprietors were broken up. All three have had their troubles with Soviet Russia, and Lithuania had been at strife with Poland over conflicting territorial claims. In 1926 they joined hands for mutual protection and formed a Baltic League, intended to strengthen their position against both Russia and Poland.

Finland, now an independent republic, was originally civilized and controlled by Sweden for centuries and subjected to Russia for another century. After fighting hard against the Russian Reds, she established herself as a progressive little nation of a hardy, stubborn race with a genius for methodical organization. "The Land of a Thousand Lakes" has great natural wealth, particularly in lumber—a most profitable export. Liberal agrarian legislation and a fertile soil enabled the Finns to become a prosperous people, aided by industry and American loans of \$25,000,000 granted in 1925-26.

Poland also passed through troublous times since her re-birth, aggravated by military adventures and political crises. With the assistance of American capital (1926-27) a brighter era dawned for the Poles; they were able to rebuild their devastated land—a legacy of the war. An American financial mission visited the country in 1926, from which considerable benefit resulted in large loans and contracts placed with American firms. One of these last was a \$15,000,000 contract with a New York concern for sanitary and water engineering in Polish towns. The little national harbor of Gdynia began its shipping career in 1926, and the erection of four great grain elevators was commenced by Americans.

Czechoslovakia in 1926 celebrated the eighth anniversary of its independence. In so mixed a family of races as this republic presents there must inevitably exist political dissension, but the pressure of economic interests tended more to internal consolidation than rupture. The

country is half industrial, half agricultural, and its manufacturers, in securing raw materials, are placed in a position of disadvantage. Its currency, due to a wise system of financial reform in the shape of an unpopular but successful capital law, Czechoslovakia owes to America and Great Britain about \$120,000,000. But the debt was not funded.

Jugoslavia, or the Serb, Croat and Slovene Kingdom, inherited a large share of the racial antagonism which weighed so heavily upon the Austro-Hungarian Empire. Since the war the Serbs suffered relatively greater losses than any of the other Allies. One-half of Serbia's tax-paying citizens and one-third of her population perished from sickness, and under the ravages of her enemy. By 1926 the revived kingdom, enlarged by the fruit of conquest, had displayed evidence of a national strength and steady economic and social progress. The export of relatively new articles, hemstitch, tannin, calcium, carbide and cyanamide. The country is largely agricultural and stock raising, while its mineral resources include coal, iron, copper, gold, lead, etc.

Turkey presents one of the most remarkable consequences of the World War in its regeneration and modernization from an almost medieval autocracy into a constitutional republic. But the former empire has been trimmed to smaller dimensions; the richest regions which belonged to the Turks were of little value to them as they had never learned the science of efficient government nor the art of exploiting the wealth which nature and conquest had endowed them with. Rich in raw materials, Turkey needs considerable resources for reconstruction in the shape of public utilities.

The Department of Commerce at Washington published a useful handbook of Turkey (No. 126). Among the most gratifying signs of Turkey is the increasing number of international agreements entered into by European states, not only for purposes of defence, but also for the promptness of good will and trade. Since the signing of the various Peace Treaties which were or have effect, cleared of the debris of the World War, there has been created a whole intricate network of international treaties in Europe, quite a number of them connected with America and Asia. From the official birth of the League of Nations on 10 Jan. 1920, about 600 new treaties had been registered with the secretariat by 1927 and published in a special Treaty Series.

While zones of friction still exist in Europe, and probably ever will, such international agreements at least evince a genuine desire to eliminate them, for the process from war to peace cannot be completed in a day, as can the fatal step from peace to war.

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WAR, EUROPEAN - EFFECT ON CURRENCY

Depreciation of White Currency in Russia
 Between 1914 and 1918

The Art of Depreciation
 (1) The Art of Depreciation

Depreciation of White Currency in Russia
 Between 1914 and 1918

2. EFFECT OF THE WAR ON CURRENCY
 The war has had a profound effect on the currency of the world. It has caused a general depreciation of the value of money in all countries. The depreciation has been most marked in the case of the currencies of the countries which have been engaged in the war. The depreciation has been caused by a number of factors, including the increase in the cost of production, the increase in the demand for money, and the increase in the supply of money.

The world paper currency at the date of the Armistice was more than five times as great as at the beginning of the war, and one year later, December 1919, was seven times as much as at the beginning of the war. The actual increase during the year succeeding the Armistice was over \$10,000,000,000 or a 25 per cent increase over that existing at the end of hostilities. These figures of the currencies of the countries named are based upon the normal pre-war value of the respective currencies as expressed in United States gold coin.

Most of this increase has occurred since the Armistice, and the war occurred of course in the countries participating in that great conflict. Taking the 23 countries and colonies which were in a greater or lesser degree participants in the war, their paper currency in July 1914 aggregated in round terms \$6,000,000,000; in

the case of the United States, the depreciation of the dollar has been about 25 per cent since 1914. The depreciation of the dollar has been caused by a number of factors, including the increase in the cost of production, the increase in the demand for money, and the increase in the supply of money.

The neutral of course fared better in the matter of their currency than did those participating in the war. The total of their paper figures did increase from \$1,166,000,000 in 1914 to \$1,451,000,000 in 1919, bringing the ratio of gold to notes in this group of neutral countries from 44.3 per cent in 1914 to 59.9 per cent in 1919. (See accompanying table for details for each of the 30 countries included in the study).

The most astonishing, not to say alarming, feature of this growth of world paper currency and reduction in the ratio of gold reserve thereto occurs in the development of the year following the war. It was a sufficient necessity that the governments while participating in the war should largely increase their quantities of currency, and they did, as is shown from the fact that the paper currency of 23 countries in question jumped from \$9,100,000,000 in July 1914 to \$37,284,000,000 at the end of the war in November 1918; though why it should have been necessary to add another \$14,000,000,000 in the year following the close of the war and bring the grand total of December 1919 up to \$48,384,000,000 is difficult to understand, especially when we realize that none of this increase of \$11,000,000,000 in the 13 months following the Armistice included any of the \$3,000,000,000 of paper issued by the Bolshevik government from its establishment in 1917 to the end of 1919, and which is described by persons familiar with conditions in Bolshevik Russia as "having no gold backing and therefore absolutely valueless."

Footnote: Artist is indigenous - and stipulation only white people shall live in thy house above Native growth

I haunt my own studio so that my art can be a medium between me, my ancestors, and those future generations who know how to experience my work. We appear and disappear from each other all the time. And it is those moments of appearance and disappearance by which we make ourselves known to one another.

I am haunted by my artwork of the past. Dogged by the great “Terrance Houle,” the artist that decided it would be better to become a ghost that haunts his own art.

NOTES

- 1 Jason Molina, “In the Human World,” *No Moon on the Water* (Atlanta: Chunklet, 2004)
- 2 Roky Erikson, “If You Have Ghosts,” *The Evil One* (San Francisco: 415 Records, 1981).

Terrance Houle, *Sketches for a studio in the afterlife*, drawings added to a textbook in The Ship & Anchor pub in Calgary, Alberta, and then returned to the shelf, 2014.



FOUR TRANSITIONS IN WATER AND LIGHT



Julian A M.P.

1

A ring of arms confining water. A drawing in clover.
A pulsing bell resolving in a bloom of counterpoint.

I am ten years old and I have never been in free fall. I stand 10 metres up from the surface of the pool and play through my drop into gravity. In the empty space, chloramines coat every particle. There is a burning in my throat. My feet grip the platform. They are purple in fluorescent light. I turn my head to meet vertigo. When I start to fall, I will reach a velocity of 9.8 meters per second. I will feel my density accelerating. I will feel myself extruding through hair and skin. Do you know that if you drop a magnet over, and over again, it will begin to lose its magnetism?

I want to raise the water up to meet me here. I want to train the lens of my eye to sharpen each molecule of the surface. I lower myself to my belly and shift my head over the edge. Even flattened to the platform

looking down feels dangerous. I have been this far and no further many times before, but now I am too ashamed to change my mind.

Why do so many Latin names for things contain lips¹? So many tiny circles cover and cover. Action informs rotation, charging substance not their own—to waver, to give way, to sink. You are not porous. I am an electric field, holding my particles together, trying to maintain a neutral charge. You could move from atom to atom, but you choose to remain with me. How does it feel?

I do not know how to dive, so I drop and enter milliseconds. My limbs and torso pitch forward then flail to the side. When I hit the water, I pass through pressure that backs up my ears, as each fundamental particle perceives itself in relation to each fundamental particle of my matter. Everything will take its time now.

“How does it feel?”

When I speak, it startles you. You did not expect an answer: “It is like a honeycomb.” I say, “Like a wall full of portals.” Your eyelids flutter. I want to bring you to this side, but there is too much surface to measure. Is it because the fractal was named in the year that I was born? I pass along each tiny transition—it is the only way to navigate to you. Tiny circles flair, contract. A sampling, a full rotation—the small, sharp mouths, in grids of yellow, or brown, or pink, or gold. A charge of substance not their own. This is how they put their parts together.

As the water, sodium, potassium, chloride, bicarbonate, magnesium, calcium, lysozyme, lactoferrin, lipocalin, IgA, Lipids and mucins escape the outer edges of my eyes, and descend along the skin that covers my skull, the movement lasts an infinite amount of time as each fundamental particle of this substance perceives itself in relation to each fundamental particle of the surface of my face. But you are not porous, you are Trypophobic. You are disgusted by sponges, by the tiny black dots that line your nose, and when you think of it, by tear ducts and by nipples. You are not porous, but you compel me to fill your two ears with speech about honeycomb while you fit your pieces into another puzzle. What is it this time, a living coral?

Why do so many Latin names for things contain lips? Birth, basin, struggle. So many tiny circles cover and cover. “We are made of star stuff,” and 40 years after Sagan’s transmission through the cathode ray tube, @howtobehuman practices explaining crying to an extra-stellar being as a form of alchemy: “humans understand the world by light that traces up at the top of their brain and when they can connect that light to something in the world that means something to them, that light will turn into water.”²

As water, I enter the cave from many points and descend along the sloping walls. I measure the edge of each particle that I pass and leave behind a flowstone residue of calcium carbonate. I recognize the ochre markings on the stone, but I did not bring them here. The iron oxide did not come from this body. These are calculated drawings made over several thousand years. I see the shapes of birds, and fish, and insects

and a very clear spider but you will not perceive these things now. Only the faintest markings in oxide remain.

You are not porous, but on my chest, there are two holes. Before her birth, purple hints give way to function. When she latches at two minutes old, her tiny tongue undulates from front to back, drawing out colostrum with a force well beyond her scale. I offer milk whenever she offers cues. I feed on demand and in return microscopic orders written into her saliva are sent back through to correct deficiency. This is how she puts herself together. When it is no longer needed, this part of me will be erased—by aversion, by surgery, by decomposition.

Youtube hosts a popular video of a sleeping 14-month-old. The screen frames lips and a chin. The lips frame a tongue, and the tongue, captured at 50% speed, performs a perfect muscular wave form that is very nearly liquid.³ Mammals are not alone in producing milk for their offspring. Both male and female pigeons feed their squabs crop-milk from the base of their necks. Flamingos and male emperor penguins produce crop milk for their young. Discus fish, Taita African caecilian, Pseudoscorpions, Pacific Beetle Cockroaches all produce a protein rich, milk-like substance to feed their offspring. But the *Toxeus magnus* has jumping spider nurses its spiderlings with their secretions even after they reach sexual maturity.

Tiny circles passing one another enact collision. Seconds hit seconds and cluster time. Impact is a rounding out of detail. To wear down and through. To touch. To wreck.

2

Why do so many Latin names for things contain lips? There are lips for herbs and scrubs, for thyme and sage, for four lobed ovaries with a one seeded nutlet and mint with a four-cornered stem—to shake, to loosen, to ruin.

Emotions are electronic motion. I write this on my wrist. When I dream in fractals, I blame it all on Roger Penrose. But when fractals of flora and crystalline and coiled calcium carbonate are called imposters, I turn to the son of Bonacci because we never asked for this. At 300-degrees Kelvin my neuronal tubing⁴ is coupled with signalling characters, but I still have a broken heart and all the many feels advance me nothing on the edge of this infinity. Roger's explanation will not fix anything, even if I come to understand what he means when he chatters about gravitational effects.

The water finds its way inside and follows sloping walls. It measures every edge of every particle it passes. It leaves itself behind to watch the drawings on the stone, but it did not bring them here. They are several thousand years of animals and insects and only the faintest lines of them remain.

Now I view the drawings as a seven second clip - a tiny, captive timeline that flickers on a loop. There are four long insects here and not one of them is perfect. The first is broken at the middle. A head of scales and bundled warts converge into a wishbone twig protruding from her abdomen. Her neighbour is a yawning hole with reedy legs that reach inside a cuffed, transparent tube. To her right another shape of insect, cut through by a rectangle, connecting head

to feet by single lines that circle into stones. The last has been consumed, she is inert inside a bloated prism. She is only waiting there, or she is not alive at all.

“There-is-a-not-yet-beginning-to-not-yet-begin-to-...”⁵ but I still hear you lounging in the bathwater.

This feeling is new. The belly vibrates. Current travels to hips, to thighs, to knees—a rush of substance all my own. I am moulting from a single vowel. It is not unlike a muscle spasm compromising balance and control. When the temperature is perfect, I climb up from the ground. I lock myself in place and wait and breath through my spiracles, until finally the plates of my body split apart. First my head emerges. Then the thorax pushes out and this is followed by my abdomen. I pause each time I pull a section free. I dry off, I harden, I refine this orientation.

How does it feel to be passed between my neurons? You are imaginary. I press record and sit and tell you stories. Then I wander out of range and forget to shut it off and find ambient recordings where no one speaks, and no one listens. I never play them back, except the one about the prism. I listen to the one about the prism all the time.

I have your words and spend months moving, mixing, and replacing them. I chip away their tiny little parts. I handle them so often that when I place them in the document, they bring their own corruption as an arbitrary spacing of broken lines.

When I look up disintegration, I am given
decomposition which
is the separation of a complex
compound into simpler elements.
This is what I mean when I describe
for you the tilt I feel of decades
in a mirror and of never
understanding how to fill the
shape.

How does it feel?

3

I find you in the character of a well-known, four-act play. To prepare for the performances, I memorize her lines and cues. But I describe *you* in the margins. I map out your demeanor. I practice every shape of you to fill her words with feeling. At the first day of rehearsal, the director winces at my notes and my tiny diagrams. And, as if strategy is all I need to make you come alive, he adds, "You cannot play a feeling! You can *only* play an action. Stop feeling and find a verb for every single line." So, on the script I write "dismiss," then cross it out and write "belittle," because I am supposed to use the words to win.

In my favourite diagram, you are a complicated mechanism pinned together at a single axis. Organic, living matter and a handful of found parts are forced

together for another use. Your head is a plush and shiny lever locked in a diagonal. Your right arm is a spatula jammed firmly in your side. A long and snaking root performs a vertical ascent, and a slender worm becomes another arm. No shadow from the table lamp I've drawn beneath your figure, but it clears the horizontal for another kind of line: "... an entity unfolds in an upward movement until its properties are exposed."⁶

In the scene, Roger Penrose is standing in my living room. He is searching in his jacket pocket for something he cannot find. He is speaking about thinking, and how my thoughts can be so thoughtful. He has written poems for all the quantum pulses hiding in my neurons. And when I ask him to explain, when I press him on his motives, he tells me it is just a theory. He tells me that William Harvey found his tiny tubes and he will too.⁷

I want to cross offstage, but I am held inside a follow spot. I cannot see beyond the lights, but I fix my gaze as though I can, and I bait: "It gives me a sense of freedom to know that a deed of deliberate courage is still possible in this world ..."⁸ How many holes are in this temporary surface?

I cannot grasp the meaning of the poems, but I do not want Roger to know. Very soon he will publish them to a certain admiration. I want to probe ... to check ... to accuse ... to redirect ... but I miss my cue, and then, I begin to cry. I cry that I will never be able to metabolize his superposition states.⁹ I cry that I will never be able to purpose his gravitation-induced

reduction.¹⁰ From somewhere in the dark, I hear, “Stop crying, oh for fuck’s sake, stop crying, just feed him a line!”

“Oh, that can make no difference.”¹¹ I could dismiss, but I humiliate instead, because I know all about magnetism now.

Tiny circles passing one another enact collision. Seconds hit seconds and cluster time. From many points I enter this and measure every particle I pass, but I never find my edges. I never leave my surface.

You are not porous, you repel. There is no other bearing. Particles embody action – this is how they put themselves together. To integrate and disintegrate—to always be and never be determining at random. Repulsion is a burden “that makes everything I touch turn ludicrous and mean?”¹² I want to split apart your surface—to sharpen all the particles of you, to lay them end to end for you to meet me here. In this tiny, captive timeline I am your image charge¹³—I pull away, I pile up shapes, I carry every bit of information.

4

There is one final drawing, it is two grids that are seated side-by side—a honeycomb with small sharp mouths in yellow, or brown, or pink, or gold. On the left, a basic index of tiny gestures drawn in ink. On the right, the drawings sit atop a painted over version of themselves. They might look like thumbprints from not too far away, but I only have this seven second clip.

Then I find the words that are crowded in each corner:

“to eliminate the enigma of vision”¹⁴

“Our organs are no longer instruments.”¹⁵

“far from the reach of punishment”¹⁶

“A bit of ink suffices to make us see forests and storms.”¹⁷

When I finally do find you, it is a very different scene. You and I are parallel lines, and you will only speak to me through the prism. You are holding on to something that you will not put down. I want you to put it down, but you will not put it down. You will only speak to me through the prism. You tell me that without it, I would simply be a point, lost to my own soft fascination.¹⁸ Then our conversation is over, and I see that it is light that you are holding in your hands.

Why do so many Latin names for things contain lips? Tiny circles in this story excise themselves. I am staring down the whole world to exit from my navel. Push it out.

NOTES

- 1 I began this narrative with preliminary research on jellyfish, specifically the *Aurelia Labiata* species of Moon Jellyfish which lives in the Eastern Region of the Pacific Ocean. *Labiata* is from the Latin *labium* which means lip. There are many species of plants and animals that contain the name labiata, including: *Cattleya labiata* (Queen of the orchids), the *Cucullaea labiata*

(saltwater clam), the *Andrena labiata* (red-girdled mining bee), *Anguilla bengalensis labiata* (the African mottled eel), the *Portia Labiata* (jumping spider), and *Labiatae* (now known as *Lamiaceae*) which refers to the plants of the mint family including basil, rosemary, lavender, thyme and culinary sage among others. Both *labium* and *labor* are hypothesized to have descended from the same Proto-Indo-European prefix *leb-* which means: lip or to lick, to hang down, to hang loosely, to droop or to sag. To this end, I made a list of Latin words with the prefix *labi* or *labo* that have their origins in *labor*, *labium* or the Proto-Indo-European prefix *leb-* such as: *labilis* (slipping, gliding or prone to slip or glide, transient or perishable), *labina*, (a slippery place), *labo* (to totter, to begin to fall or sink, to give way, to waver, to decline, to err), the intransitive verb *labor* (meaning: to slip, fall, slide, drop, perish, or go wrong), and the noun *labor* (meaning: labour, work, task, production, preoccupation, struggle, stress, suffering, and childbirth). The latin *labrum* is also linked to the prefix *leb-* and refers both to a brim, lip, margin or edge, or to a bowl, large basin, tub or bathing place. Following the thread a little further, the verb *labefacto* which comes from *labefacio* (*facere* and *labo*) means to ruin, to destroy or to weaken, to cause to waver, to shake, to loosen or to make ready to fall.

- 2 @howtobehueman, “How I Would Explain CRYING to an Alien? BASHING THE WAY YOUR BODY WORKS WILL NEVER LEAD TO YOU FEELING NATURAL. #Readitagain #Toeachtheirown, Faith’s Hymn – Beautiful Chorus,” *TikTok*, 2021. <https://www.tiktok.com/@howtobehueman/video/6991612869011868933>.
- 3 Natalie Halman, “Breastfeeding Tongue Function: 14 month old with 75% anterior tongue tie (but good tongue mobility),” *YouTube*, 2015. <https://www.youtube.com/watch?v=nFNfDXcUauE>

- 4 This is the temperature of the tissue of the components of the human neuronal system. Christof Koch and Klaus Hepp, “Quantum Mechanics in the Brain,” *Nature News*, Mar. 29, 2006. <https://www.nature.com/articles/440611a>.
- 5 Zhuang Zhou, “Equalizing Assessments of Things,” in *Zhuangzi: The Essential Writings: With Selections from Traditional Commentaries*, Brook Ziporyn, trans. (Indianapolis/Cambridge: Hackett Publishing Company Inc., 2009), 15.
- 6 Hannah Arendt, “Appearance, Part 1, The World’s Phenomenal Nature,” in *The Life of the Mind* (New Work: Harvest Books, 1978), 21–22.
- 7 Roger Penrose’s response to a question about how “consciousness emerges from quantum physical actions within the cells of the brain,” is to make reference to William Harvey’s supposition that blood circulation between arteries and veins must be facilitated by “tiny little tubes” that we aren’t yet able to see. Susan Kruglinski, “Roger Penrose Says Physics Is Wrong, from String Theory to Quantum Mechanics,” *Discover Magazine*, May 19, 2020. <https://www.discovermagazine.com/the-sciences/discover-interview-roger-penrose-says-physics-is-wrong-from-string-theory>.
- 8 This is Hedda’s line a little while after Judge Brack has informed Hedda, Tesman, and Mrs. Elvsted that Lövborg has shot himself and is gravely wounded. She assumes that Lövborg has shot himself in the heart with her father’s pistol. Henrik Ibsen, *Hedda Gabler* (Urbana, IL: Project Gutenberg, 2010). <https://www.gutenberg.org/files/4093/4093-h/4093-h.htm>.
- 9 Penrose and Hameroff argue that “elementary acts of consciousness are non-algorithmic ... (and) are neurophysiologically realized as gravitation-induced reductions of coherent superposition states in

microtubuli.” See: Harald Atmanspacher, “Quantum Approaches to Consciousness,” *Stanford Encyclopedia of Philosophy* (Summer 2020 Edition), Edward N. Zalta, ed. <https://plato.stanford.edu/entries/qt-consciousness/#PenrHameQuanGravMicr>.

- 10 Ibid.
- 11 Hedda’s response to Brack’s statement that Lövborg did not in fact shoot himself at his own lodgings. Ibsen, “Hedda Gabler.”
- 12 Hedda’s response to Brack’s clarification about Lövborg’s injury. He shot himself perhaps accidentally in the bowels, not intentionally in the heart. Ibsen, “Hedda Gabler.”
- 13 While reviewing the basic physics of magnetism and polarity, I learned that two positive magnetic charges will always repel one another except in the case of identical metal spheres. If one sphere has a stronger charge, it will cause a shuffle in the weaker sphere that forces an uneven redistribution—a piling up of positive charge on the opposite side that leaves an attracting negative in its place. This is called an *image charge*. The effected sphere retains its information—everything is still there—it is only the properties that reorganize themselves to perform differently, attracting instead of repelling the other sphere. Philip Ball, “Like Attracts like?” *Nature News*, May 23, 2012. <https://www.nature.com/articles/nature.2012.10698>.
- 14 Maurice Merleau-Ponty, “Eye and Mind” in *The Primacy of Perception, and Other Essays on Phenomenological Psychology, the Philosophy of Art, History and Politics*, James M. Edie, ed. (Evanston: Northwestern University Press, 1964), 175.
- 15 Merleau-Ponty, 178.
- 16 Zhou, 21.

- 17 Merleau-Ponty, 178.
- 18 Attention Restoration Theory (ART) posits that softly fascinating stimuli allows for “mental space for reflection.” Soft fascination is described as “the restorative potential of everyday activities” that require attentional effort but leave room for thought, meditation, dreams, etc. “Walking in nature was perceived as softly fascinating, whereas watching television was a source of hard fascination.” Avik Basu et al., “Attention Restoration Theory: Exploring the Role of Soft Fascination and Mental Bandwidth,” *Environment and Behavior* 51. 9-10 (2018), 1055–1081. <https://doi.org/10.1177/0013916518774400>.

It has been my observation that activities now categorized as softly fascinating are the typical suggestions made for the soothing of a broken heart.

3

MOLTING TOGETHER

Using ArtScience to Explore

Gender and Otherness with Songbirds

Silas Fischer

Realizing that I have nothing left to lose in my actions I let my hands become weapons, my teeth become weapons, every bone and muscle and fiber and ounce of blood become weapons, and I feel prepared for the rest of my life ... all I can feel is the pressure all I can feel is the pressure and the need for release.

—David Wojnarowicz,
Close to the Knives

Categories permeate and constrain our relations. Humans, especially in the Western world, categorize the world in an attempt to understand it. We package people, objects, organisms, and ideas into convenient boxes based upon perceived differences. For example, Western biologists classify organisms

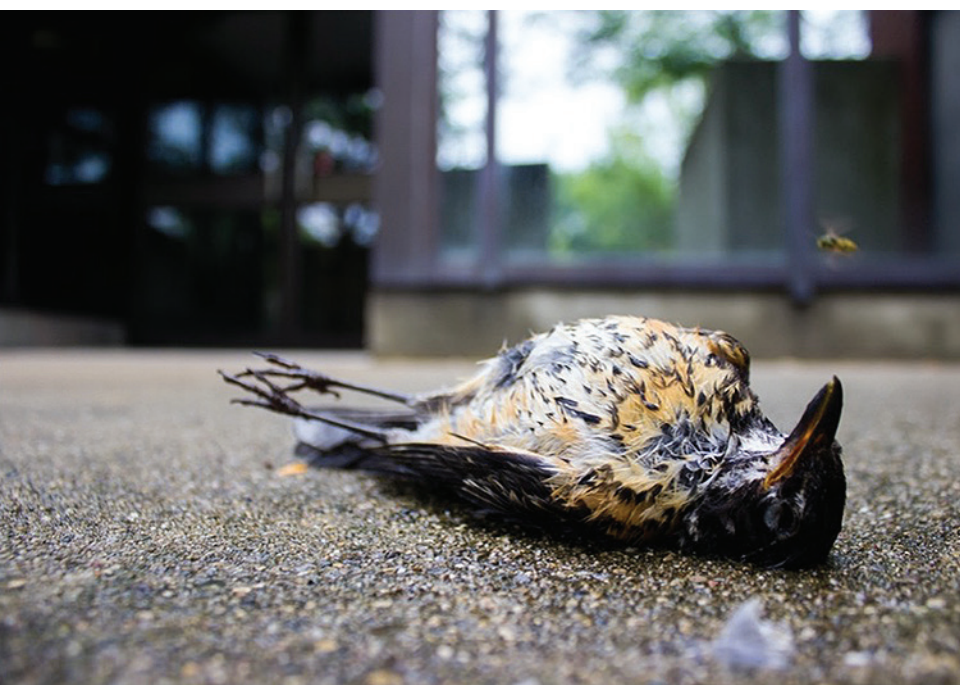
hierarchically into a taxonomy of Kingdom, Phylum, Class, Order, Family, Genus, and Species. Similarly, colonial notions of gender violently force people into binaries of male or female. In academia, we operate in “discrete disciplines,” housed in different buildings on (sometimes different) campuses with little inter-departmental interaction. Thus, “art” and “science” are perceived as disparate categories, each having its own lens—and even its own language—through which to view and engage with the world. In this sense, artists, like scientists, pose questions about world phenomena and systems. But they may come up with different answers.

In the field of wildlife ecology, scientists ask and answer questions about their study species. But how do we move beyond merely “studying” an organism and instead practice kin-making and collaboration? What can we learn from our study of organisms about ourselves and how we interact and relate? Are we really so different after all? Can we move beyond these simple-yet-violent binaries while still maintaining a cohesive understanding of the world? In what ways are categories consumed, and at what cost?

COLLISIONS

I officially began my work as a scientist as an undergraduate, when I was pursuing a BS in biology and a BFA in printmaking. I started studying how non-human animals interact with human-built environments; areas that are often not constructed with other organisms in mind. I started studying

bird-window collisions on my university's campus, documenting daily bird mortalities across twelve campus buildings over two years with Dr. Kamal Islam and a suite of volunteers.¹ Because they cannot sense glass, up to one billion birds collide with glass



An American Robin (*Turdus migratorius*) that fatally collided with a window and was collected as part of my undergraduate study. Image: Silas Fischer.



windows annually in the United States alone.² Most of these window collisions are fatal, which was striking to me as a lifelong bird aficionado.

As a young scientist, I was also struck by the failure of scientists to communicate their work beyond peer-reviewed literature and their failure to engage with their own research creatively. I was feeling pulled in two seemingly different directions (i.e., “art” and “science”) and wanted to meet somewhere in the middle. So, I became interested in merging my ecological research with my art practice. I drew the lifeless window-killed bird carcasses in the printmaking studio, where I worked with Sarojini and David Johnson, both of whom were my mentors at the Ball State School of Art. Then I would walk over to the wildlife lab to prepare the specimens as study skins for the museum collection. I made prints from the drawings, and instead of the traditional metal intaglio matrix, I etched them in glass to reinforce the window collision. This was my first encounter with glass as a medium. The result was a series called *Collisions*, which included woodblock prints, a hand-bound book, bird study skins, and three wooden specimen drawer “tables.” *Collisions* was a way to communicate my research findings beyond the scientific literature, to

A particularly problematic building façade on the Ball State University campus (Muncie, Indiana). This site caused many birds to collide with the mirror-like reflective windows. Image: Silas Fischer.

use art to engage the public in bird conservation and environmental awareness. In doing so, I felt I was giving new life to these casualties—memorializing them in a way.



Silas Fischer and Thomas Williamson, *Specimen Drawers: the Afterlife (Accidental Martyrs): DETAIL*, waxed glass plate intaglio prints, woodcut print, museum specimens (birds killed by window collisions), cast glass, ash, 2016.

Although this work did not incorporate my identity per se, the process of its creation was partially and subconsciously fueled by my internal brawls with gender, sexuality, and field(s) of study. *Collisions* got



Silas Fischer, *Specimen Drawer no. III*,
woodcut print on paper, 2016.

the gears turning in terms of the push-pull dynamics of discipline, sexuality, and gender. I was (and still am) liminal. I exist(ed) at the tension point in so many aspects of my being. Perhaps such tension points—though frustrating more often than not—give rise to meaning.



Silas Fischer, *Collision XIII: Ovenbird*,
glass etching on okawara, 2016.

ARTSCIENCE

Broadly speaking, organisms, gender, and discipline are more complex and nuanced than the convenient boxes and categorical groups imposed upon them. Instead, they operate on infinite spectra, or what trans scientist Joan Roughgarden terms “the biological rainbow.”³ An overcoming of the binaries of art and science might therefore be considered along the same terms as the spectra Roughgarden suggests. A more complete understanding of the world might be possible by “integrating synthetic experience with analytical exploration” to produce “ArtScience.”⁴ Such combined approaches come at a critical time when systems of oppression are dramatically altering the planet and its processes.

Imagining new futures is relatively simple but creating them is more complex and requires trans-disciplinary approaches involving artists and scientists (among other disciplines). Model-generated climate scenarios generally predict a hotter, drier, and less predictable future—especially in drylands⁵—leading to phenological mismatch, increased wildfire risk, accelerating rates of species decline, and “biological annihilation,” among other changes.⁶ These climate changes can be directly tied to “social organization.”⁷ In other words, the systems that seek to profit from humans and non-humans are to blame for the use of binary analysis to produce reductive forms of knowledge of the world. Western colonial systems have effectively and systematically become experts at reducing “Others,” or those we perceive as different from the individual

self, as mere commodities, ultimately linking the exploitation of Other bodies and the environment under capitalism. Importantly, marginalized and resource-stressed groups are and will continue to be disproportionately affected by climate change and its downstream effects. Such communities are forced to act as buffers to the consequences of climate change or, in Kathryn Yusoff's words, "to take up the body burdens of exposure to toxicities and to buffer the violence of the earth."⁸ Such hierarchical systems proliferate a dichotomy between "the haves and have-nots." As the artist-philosopher Pope L. argues, the resulting inequities of this dichotomy have tangible, measurable biological consequences for humans and non-humans alike.⁹

Since 2016, I have studied the ecology of desert songbirds in New Mexico—mainly the Gray Vireo (*Vireo vicinior*), with Dr. Henry Streby. My MS thesis focused on Gray Vireo demography, migration, and research-based art.¹⁰ I expanded this work to my PhD research—all of which took place at Sevilleta National Wildlife Refuge on the ancestral and unceded lands of Indigenous Pueblos and Apache peoples. Small, desert-dwelling songbirds like Gray Vireos are particularly susceptible to climate change yet are among the least studied birds in North America, due in part to their often-drab plumages and the inhospitable habitats they occupy. Effectively, Gray Vireos are

Using VHF radio telemetry (top) to track a Gray Vireo (*Vireo vicinior*) fledgling (bottom). Image: Silas Fischer.





almost entirely overlooked in terms of conservation funding and the scientific literature. If one had to place Gray Vireos into Pope. L's understanding of the dichotomy of "the have's and have nots," this species would be "have nots" compared to many of its mesic counterparts. Gray Vireos are not the bright, colorful warblers that garner attention and awe from humans. In fact, bird field guides state that "few birds are as plain as the Gray Vireo" and describe the species as "one of North America's most nondescript birds." Over the past six years, I have cultivated a particular affinity for studying Gray Vireos and other such species because I see many parallels between these birds and myself as a transgender scientist-artist.

In the grueling Chihuahuan Desert of New Mexico between May and August every year from 2016-2022, I spent nearly every day in the field with the Gray Vireos. At first, I studied them in remote juniper savannas away from comfort and familiarity, in the seemingly stark desert landscape. I captured and banded these vireos, found and monitored their nests, attached tracking devices (i.e., VHF radio transmitters) to their young, recorded thousands of nest and fledgling locations, and measured their habitat associations. All of this was to better understand their ecology and to build demographic models to inform conservation actions.

An adult female Gray Vireo (*Vireo vicinior*) with a light-level geolocator tag used to track migration ecology. Image: Silas Fischer.

As part of my overarching project on Gray Vireo ecology, I studied the migration of the adult vireos. To catch adult birds, we used mist-nets, or fine-mesh nets that are, ideally, nearly imperceptible to birds. Underneath the nets, we placed speakers that broadcast Gray Vireo vocalizations. These vocalizations attract adults defending their breeding territories from conspecifics. The adults fly into the concealed nets, after which we quickly extract them, band them, take measurements, and sometimes deploy tracking devices—in this case, light-level geolocators. These geolocators, attached using a leg-loop harness, sit on the bird's back, where they record ambient light levels throughout the year. Essentially (and if all goes as planned), I mark adult vireos in New Mexico with these tiny geolocator tags, the vireos breed and then migrate all the way to Mexico (usually along the Baja Peninsula for this particular population). They spend 2/3 of their annual life cycles there and then return to the same territory next year, where we retrieve the tags, download the data, and extrapolate the light levels using statistical techniques to estimate each vireo's migration routes, migration timing, and nonbreeding location.¹¹

Banding and taking morphological measurements of an adult Gray Vireo (*Vireo vicinior*). Image: Silas Fischer.





MOLTING AND MIGRATION

In my work, I get to know each Gray Vireo on an individual basis. Some of these birds I have even known and studied every summer since 2017. At the end of each of my field seasons, I begrudgingly bid farewell to the vireos and their junipers and return home with myriad data—while the vireos make their annual migrations south. In the lab, I spent hours, days, months, years, analyzing vireo migration data (among other data, such as fledgling survival models). In doing so, the rigid objectivity of science sometimes provokes anxiety. I find myself drawn towards other ways of relating to data, the process of analyzing and writing, and more broadly to the vireos themselves. This research propelled me once again into an ArtScience process. At first, I thought just to communicate the science. But quickly, I began to see more profound parallels between the vireos and myself.

In 2018, as I was among the motherly junipers spending every day with the Gray Vireos, and even afterwards during the analysis process, a tension finally surfaced. Forced to confront my identity during the many hours spent in the field, I came out as non-binary and trans to family, friends, and

Silas Fischer, *An Offering after Drought*, pre- (top) and post-drought (bottom) exposure, lost wax kiln-cast glass, 2019-2020.

my research lab. I changed my name, pronouns, and started weekly testosterone injections. At the same time, I immersed myself in the glass studio, working with Alli Hoag (Bowling Green State University) and Brian Carpenter (University of Toledo)—art mentors and friends who supported me in my ArtScience endeavors as I worked on my MS research.

The prefix *trans*- itself means “to cross,” implying movement. But often this movement across binary terms is assumed to be a means to an end.¹² This understanding of trans-movement as a means is somewhat limited, however. I use the idea of trans-movement in combination with animal migration and ritual memorial¹³ in a series of work called *Molt*. Migration, in a sense, is about returning and homecoming. In songbirds, the urge to migrate can be felt in the body as an abject anxious restlessness (i.e., *zugunruhe*) induced by environmental cues and the endocrine system.¹⁴ In other words, songbird migration is associated with profound hormonal and changes.

At my study sites, Gray Vireos breed in New Mexico from May-August, and then migrate in September to Mexico, where they spend 2/3 of their annual life cycle before returning in April-May to New Mexico to repeat the cycle. Prior to and even during their migrations, Gray Vireos and

Silas Fischer, *Pre-Migration Wishing Well*,
blown glass, 2019-2020.



other migratory songbirds must prepare for their journeys by molting their feathers among other physiological processes. Molting is a profound disturbance of endogenous metabolism, a process whereby animals shed worn tissue, such as feathers,



Silas Fischer, *Pre-Migration Wishing Well*,
blown glass, 2019-2020.

hair, and exoskeletons. It is often prompted by life cycle stages such as the transition from the breeding season to the migration season. Complex hormonal cascades occur with the onset of migratory behavior, prompting changes such as hyperphagia (increased appetite and feeding), atrophy and hypertrophy of multiple organs, and altered sleep regimes. Notably, songbirds can atrophy their gonads and digestive systems while growing flight muscles to facilitate fueling and flight efficiency.¹⁵

As a transsexual person, I had (and have) this *zugunruhe* in my body. I found myself relating to the vireos as they prepared for their migration. In the series *Molt*, I drew parallels between my transition through hormone replacement therapy (i.e., testosterone) as a queer, transsexual person and the transition between songbirds' annual life cycle stages. Both migration and testosterone injections cause profound physiological changes: a *molting* of the past. Both involve phases of "homecoming" too. I used multimedia techniques in glassblowing and kiln casting to explore gender and queerness while engaging viewers with wildlife science and conservation. I see these kindred vireo spirits, as well as the vegetation types they occupy (e.g., piñon-juniper savannas and elephant tree deserts), as examples that mirror the way we tend to "Other" bodies and identities different than our own.

I consider the scientific process as a necessary component of my artmaking practice and vice versa. I used data collected in the field and results and conclusions from these data as visual metaphors to explore my gender identity and queerness while

invoking the ritual memorial. My gender transition, while risky, is a particular and continuous migration of my emotional and physical homecoming. It is a constant coming-out process, but not as a means to an end. Rather, being trans is *transgressive* in itself.¹⁶ As Stryker et al. explain, genders are “potentially porous and permeable spatial territories (arguably numbering more than two), each capable of supporting rich and rapidly proliferating ecologies of embodied difference.”¹⁷ The impacts of global climate change on migratory songbirds, and on trans people in this “embodied difference”, are of critical concern. It is my goal with *Molt* to use ArtScience and transitions as ritual memorials, to offer a new, hopeful, transdisciplinary and transgressive lens through which to view a world currently understood by many in binaries. In effect, Gray Vireos and I are molting together.

NOTES

- 1 Silas E. Fischer and Kamal Islam, “Identifying bird-window collisions on a university campus during spring and fall migration,” *Proceedings of the Indiana Academy of Science* 129 (2020), 47-55.
- 2 Scott R. Loss, Tom Will, Sara S. Loss and Peter P. Marra, “Bird-building collisions in the United States: Estimates of annual mortality and species vulnerability,” *Condor* 116.1 (2014), 8-23.
- 3 Joan Roughgarden, *Evolution’s Rainbow: Diversity, Gender, and Sexuality in Nature and People* (Berkeley: University of California Press, 2013).

- 4 Robert Root-Bernstein, Todd Siler, Adam Brown, and Kenneth Snelson, "ArtScience: integrative collaboration to create a sustainable future," *Leonardo* 44.3 (2011), 192.
- 5 Richard Seager, Mingfang Ting, Isaac Held, Yochanan Kushnir, Jian Lu, Gabriel Vecchi, Huei-Ping Huang, Nili Harnik, Ants Leetmaa, and Ngar-Cheung Lau, "Model projections of an imminent transition to a more arid climate in southwestern North America," *Science* 316.5828 (2007), 1181-1184.
- 6 Gerardo Ceballos et al, "Biological annihilation via the ongoing sixth mass extinction signaled by vertebrate population losses and declines," *Proceedings of the National Academy of Sciences* 114.30 (2017), E6089-E6096.
- 7 Jesse C. Ribot, Antonio Rocha Magalhães, and S.S. Panagides, eds., *Climate Variability, Climate Change and Social Vulnerability in the Sem-arid Tropics* (Cambridge: Cambridge University Press, 1996).
- 8 Kathryn Yusoff, *A Billion Black Anthropocenes or None* (Minneapolis: University of Minnesota Press, 2018).
- 9 C. J. Schell, K. Dyson, T.L. Fuentes, S. Des Roches, N.C. Harris, D.S. Miller, C.A. Woelfle-Erskine, and M.R. Lambert, "The ecological and evolutionary consequences of systemic racism in urban environments," *Science* 369.6510 (2020).
- 10 see Silas E. Fischer, "Post-fledging and Migration Ecology of Gray Vireos (*Vireo vicinior*) and using ArtScience to explore gender and identity," MS Thesis (Toledo: The University of Toledo, 2020).
- 11 Ibid.
- 12 Susan Stryker, *Transgender History* (Berkeley: Seal Press, 2008); Woelfle-Erskine and Cole 2015, Seymour 2016.

- 13 as described by David Wojnarowicz in *Close to the Knives: A Memoir of Disintegration* (New York: Vintage Books, 1991), 276.
- 14 P. Berthold, *Control of Bird Migration* (New York: Chapman and Hall, 1996).
- 15 Marilyn Ramenofsky, "Hormones in migration and reproductive cycles of birds," in David Norris and Kristin Lopez, eds., *Hormones and Reproduction of Vertebrates, Volume 4 - Birds* (Cambridge: Academic Press, 2010).
- 16 Cleo Woelfle-Erskine and July Cole, "Transfiguring the Anthropocene: Stochastic Reimaginings of Human-Beaver Worlds," *Transgender Studies Quarterly* 2.2 (2015), 297-316.
- 17 Susan Stryker, *Transgender History*.

4

BEING IN THE MUD

Enmeshed with Microbial Life

Nicole Clouston

In my practice-based research I work with mud, water, and the microbes that live in it, to explore the enmeshed nature of life. I collect the mud from Lake Ontario and place it, along with nutrients that encourage microbial growth, in clear sculptural prisms. When exposed to light, the microbes begin to flourish, becoming visible in the form of vibrant marbling. The colonies form on the surface of the mud, each finding their niche in the column. Their visual presence in turn draws attention to their constant invisible presence around, on, and within our bodies. Microbial life passes in and out of us humans, permeating what we perceive to be the barrier between ourselves and everything else. My work suggests that our perceived boundaries are illusory.

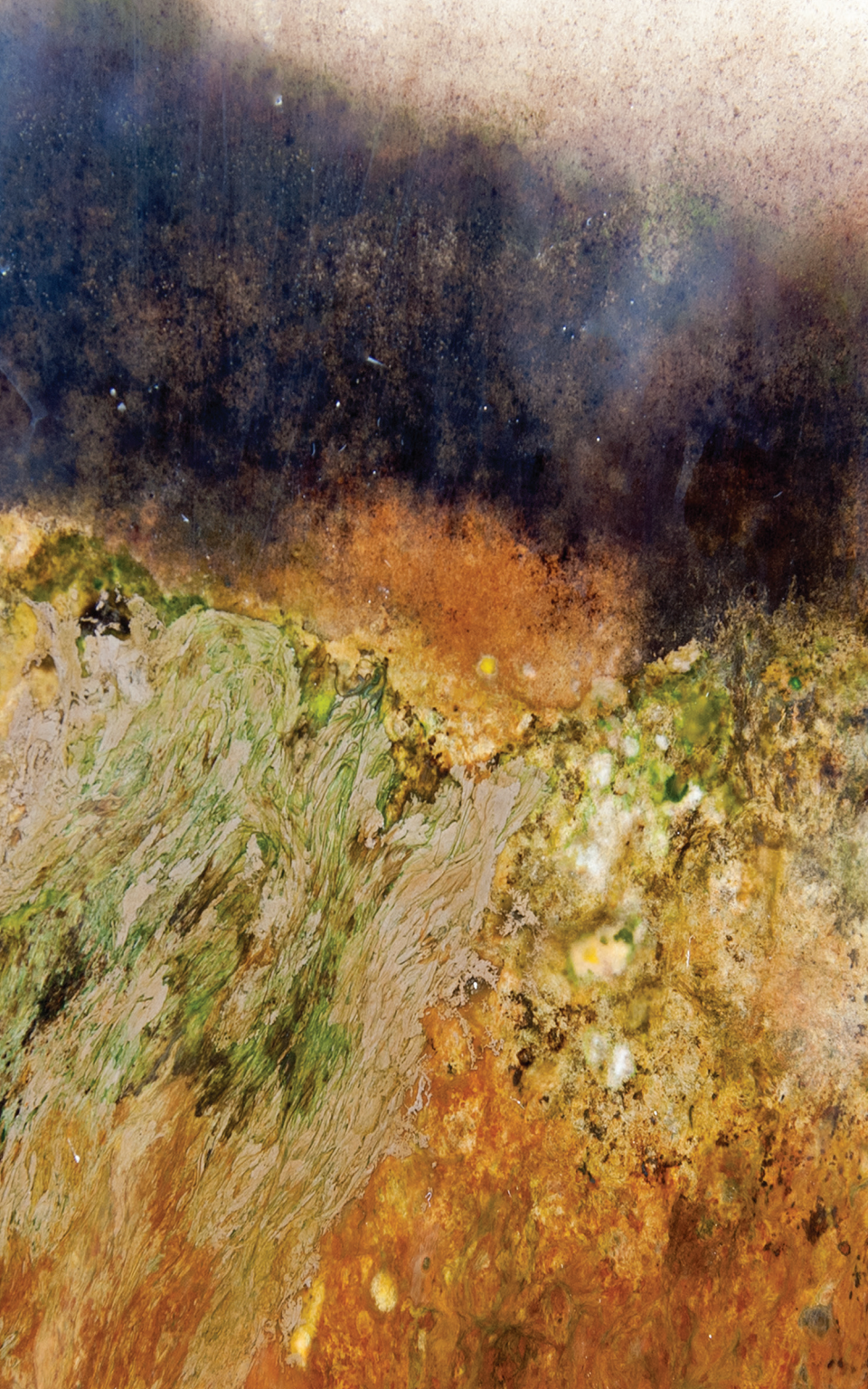
The microorganisms that are thriving in Lake Ontario today are very different from the microbes that lived in the lake 200 years ago.¹ The microbial

communities have shifted as the environment of the lake has been altered due to invasive species, pollution, sedimentation, turbidity, and climate change.² These changes can be traced in the lake's phytoplankton populations. Phytoplankton are photosynthetic microbes that include cyanobacteria and algae.³ Looking at the health of these microbes has been key in understanding the condition of many aquatic ecosystems and to mud itself.⁴

I first became interested in these invisible organisms when I discovered that without them I would not be able to survive. I realized that my body is an ecosystem and that each of us is never simply one being. Since then, I have been grappling with my relationship to microbes and webs of connection that extend far beyond my body. Microbes are the constant companions of all ecosystems and the bodies that inhabit them. Microorganisms drive planetary cycles of carbon, nitrogen, sulphur, and phosphorus as they enrich soils and breakdown waste.⁵ Photosynthetic bacteria consume sunlight and release oxygen, making the air breathable for aerobic life. Inside clouds, microbes form the seeds for raindrops; inside bodies, they protect, nourish, and sustain. We are just beginning to gain a deeper understanding of the multifaceted roles these organisms play. By working with microbes, as well as the mud and water that they

Nicole Clouston, *Mud (Lake Ontario)*,
detail images of microbial growth, 2017-present.





inhabit, I have gained a deeper understanding of the ways beings are enmeshed with one another.

ENMESHMENT

What does it mean to be enmeshed? In psychology, enmeshment describes a variety of relationships where boundaries are unclear and individuals become psychologically dependent on each other, even pathologically so.⁶ In this state, people become attached to the point that “they cannot separate or individuate from one another without experiencing tremendous anxiety, anger, or other forms of emotional distress.”⁷ It is clear that this kind of interconnectivity is not always beneficial. As Science and Technology Studies (STS) researcher Jody Roberts expresses, being enmeshed is not a choice; we do not have “the luxury of disengagement.”⁸ We are caught in meshes of connection that build and destroy. The microbes that support our lives now will also decompose our bodies when we die. The water that we drink also pollutes our bodies with petrochemicals we introduce to it. Interconnectivity cannot be denied; how we experience our interconnectivity with others and how they experience us (whether as nourishing or toxic) is the pressing question at hand, particularly in the context of climate warming and its effects on ecological interconnection.

Nicole Clouston, *Mud (Lake Ontario)*,
detail images of microbial growth, 2017-present.

“Enmeshment” with its connotations both normative and pathological, forces me to confront the difficulties of working responsibly in ecosystems, and creating artwork that engages more-than-human worlds. When we are enmeshed, we cannot disentangle even when the connections become uncomfortable or harmful. Despite the damage that can be done, we do have the capacity to try to forge meaningful ways of being in the mud together, and that the mud is part of us. To be enmeshed is to be connected with responsibility and consequence.

MUD, MICROBES, WATER

Working with mud, microbes and water has taught me about the world beyond my own individuated experience and human perspective. They have shifted my understanding and appreciation of slowness. Although lively, these material beings move slowly, at a geological timescale. Media theorist, Lutz Koepnick, argues that slowness enables us to recognize the present as “a site charged with multiple durations, pasts, and possible futures.”⁹ Through its slowness, my artwork enables a space for reflection and consideration of the liveliness of matter demonstrated not by its obvious activity, but by its pervasiveness and complexity. Mud is a world unto itself, even as it encompasses and penetrates many beings.

Although it moves slowly from a human perspective, mud is in constant flux. When it dries out, mud returns back to water and soil. The mud lining waterbeds gradually forms sedimentary rock over geologic time.¹⁰ These mudstones preserve traces

from the past, inextricably enmeshed with human activity and the contaminants it produces.¹¹ The mud, water and microbes in my sculptures also shift constantly. They slowly compact in the plastic prisms, even as they change composition as the microbial



Nicole Clouston, *Mud (Lake Ontario)*, 2017-present.

life inside it lives and dies. The slow vitality of the sculptures has often revealed itself to me, sometimes in spectacularly eventful ways.

On occasion, my sculptures overflow. The sculptures are modelled on a Winogradsky column, a cylindrical vitrine that allows the biologist to observe layers of microbial activity. My artwork, a large scale version of the column, therefore relies on its capacity to contain the mud and microbes I am working with and to make them visible to viewers in the gallery. The top of the sculpture is open, covered by a thin layer of parafilm that keeps in moisture while allowing gas to escape. The rest of the artwork needs to be watertight. Despite my attempts to create solid borders, however, on many occasions the mud and microbes refuse to be contained—leaking, sometimes in vast quantities, out of the boundaries I have attempted to draw.

In April 2017 I installed my exhibition, *Mud (Lake Ontario)* at York University. When the installation was finished, I turned the gallery lights off. Suddenly, I heard a cracking sound. I turned the lights back on and discovered that one of the six-foot prisms called *Lake Ontario Portrait* had split down the middle: a foot-long crack growing up from the bottom of the container. The mud began to ooze out of the rupture. I decided I would remove that prism from the show, but then I heard, *crack, crack, crack*. Three more prisms broke open. Eventually all of the acrylic homes I had built were leaking.¹² The timing could not have been worse! In one moment, the sculptures were contained, and in the next they had become unbound. Although I was devastated at the time, I have come

to see this instance as another way to think about the permeability of barriers and the agency of mud, microbes, and water. I have since resolved most leaks through changing my glue and plastic type, however, the boundaries I form are not absolute. This was also the occasion to think about the unbinding of art itself, as it comes to accommodate the concepts of entanglement, interconnection, and invisible forms of life.

Although not impervious to rupture, the artefacts I build enable the microbial life inside to grow far beyond their typical capacity. All aspects of the sculpture have been tailored to support a community of microbes, sustaining the relationship they have with soil, water, and each other. The prisms are clear enough to enable sunlight to enter the closed ecosystem. They mediate the generation of energy that is converted into nutrients by photosynthetic bacteria. The height of the prism was chosen to allow an oxygen gradient and a sulfide gradient to form, which enables each microbial colony to find the niche where their needs are met. The microbial community present is diverse—composed of cyanobacteria, heterotrophic bacteria, algae, iron oxidizing bacteria, purple sulphur bacteria, sulfate reducing bacteria, and more. The intricate web of relationships inside the prisms sustains the microbes in ongoing living and dying. It also reminds me that I, like the microbes inside my sculptures, am intimately enmeshed with other beings. Without these ties existence would not be possible. As an artist, my practice is mediated by this enmeshment.

INTRA-ACTION/ INTRA-ANIMACY

Despite the disparity between myself and the microbes that I work with, they impact me as much as I impact them. Making the sculptures has never been a unidirectional sequence of actions exerted on the microbes. Nor is it a solipsistic flow of my own ideas that dictates the line of inquiry about them. Rather, my practice is a “mutually constitutive working out, and reworking” between the microbes, the mud, the sculptures, Lake Ontario, and I.¹³ It is through our intra-actions that the artwork and texts surrounding it have come to exist and matter. Karen Barad develops her theory of “intra-action” in her book *Meeting the Universe Halfway*. Intra-action, unlike interaction, emphasizes the enmeshed, entangled nature of all things. She writes:

Existence is not an individual affair. Individuals do not preexist their interactions; rather, individuals emerge through and as part of their entangled intra-relating. Which is not to say that emergence happens once and for all, as an event or as a process that takes place according to some external measure of space and of time, but rather that time and space, like matter and meaning, come into existence, are iteratively reconfigured through each intra-action, thereby making it impossible to differentiate in any absolute sense between creation and renewal, beginning and returning, continuity and discontinuity, here and there, past and future.¹⁴

The world is created through this ongoing meaning-making of subjects and objects mutually intra-acting. The microbial life and I shape and are shaped by our work together.

Building off of Barad's framing of intra-activity, in her book *Rendering Life Molecular*, anthropologist Natasha Myers develops the concept of "intra-animacy".¹⁵ Intra-animacy refers to the mutual shaping and animation of a protein modeler and their protein. Myers states, "intra-animacy is generated in contexts where bodies are open to move with and be moved by one another." In the act of creating three-dimensional models, the modelers need to come to know their collaborator—a lively and complex protein—intimately. In coming to know enough they often involve their bodies, "kinesthetically" activating and being activated by the proteins. According to Myers, "by giving themselves over to the labor of making models and animations that they learn how to *move with and be moved by* molecular phenomena."¹⁶ The relationship described by Myers is characterized by reciprocity and mutual agency. Intra-animacy and intra-action acknowledge the powerful agency of non-humans. Through requiring my care and my need to know enough about the microbes in my sculptures, they animate me. Often impacting the artwork in ways that I would not have expected or intended in their growth patterns and capacity to move beyond the containers I created.

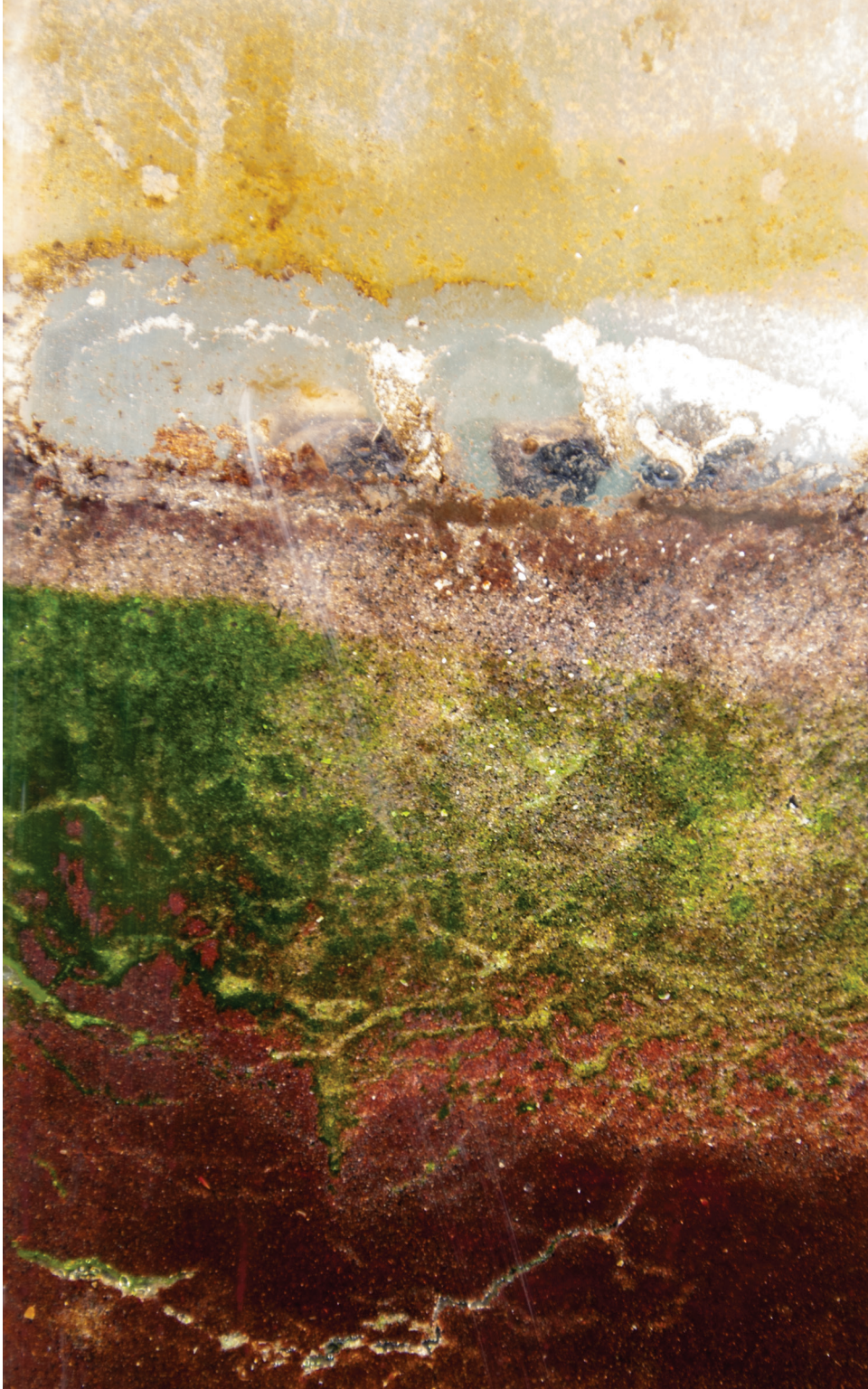
I need to remain receptive and responsive to my non-human collaborators so that I can move with and be moved by the microbes.¹⁷ Through the concept of intra-animacy I can understand that my actions—

building homes for the microbes, collecting material from Lake Ontario, everyday acts of care—are not exclusive to me impacting the microbes, but also to the microbial life animating me. Acknowledging the mutual connection between who are animating, who are intra-animate, is another way that I can reflect further on our enmeshed relationship.

ALTERLIFE

The mud, water and microbes that I have worked with most often come from Lake Ontario. The water from all five Great Lakes flows through Lake Ontario before it returns to the sea, along with all of the pollutants gathered as the water passes farmland and industrial corridors. The lake is so polluted that Toronto-based artist Diane Borsato included “THE LAKE WILL BE CLEANED ENTIRELY” as one of her “absurd or impossible” public art proposals for the town of Port Credit on Lake Ontario (2009).¹⁸ Borsato’s artist book features statements and drawings that consider the limits of public art as well as human intervention in public spaces. Including the consideration that we would like to propose to clean up Lake Ontario, but it is not seemingly possible.

Nicole Clouston, *Mud (Lake Ontario)*,
detail images of microbial growth, 2017-present.





STS scholar Michelle Murphy writes about the industrial chemicals omnipresent in the Great Lakes. In her texts, Murphy emphasizes the importance of creating “modes of attention” that enable us to see and take responsibility for “histories and presences of chemical itineraries and their production in the infrastructures of settler colonialism, racism, and capitalism.”¹⁹ We are enmeshed with the lake through these histories and their chemical traces. The presence of polychlorinated biphenyls (PCBs) in our bodies reveals another way we are tied to our environment. To pollute one is to pollute the other. The extent to which we are already contaminated could indicate that we have gone too far to try to reconcile. However, Murphy proposes that we conceive of another way to be in the world. She offers the concept of “alterlife” as one way to “generate alter-concepts of care” and “alter-modes of collaboration.”²⁰ Alterlife acknowledges that one cannot simply get out of entanglement or intra-animacy. Hurtful and deadly forms are part of contemporary existence as part and parcel of toxic dumping. Yet the openness to alteration may also describe the potential to become something else, to defend and persist, to recompose relations to water and land, to become alter-wise in the aftermath.²¹ Alterlife provides a way to live with our enmeshed state and move forward with a deeper

Nicole Clouston, *Mud (Lake Ontario)*,
detail images of microbial growth, 2017-present.

understanding of our responsibilities to past actions and violence, rather than longing for a time before alteration. Through my work, I have discovered that the microbial life in Lake Ontario calls me to a form of alterlife.

When Lake Ontario first formed, its phytoplankton population was composed of species that could live in a low nutrient or oligotrophic environment and were adaptable to a wide range of conditions, making them eurytopic. When European settlers colonized Canada and began to pollute the lake with nitrogen and phosphorus run off these populations were displaced by phytoplankton that thrive in mineral rich, eutrophic, environments.²² The lake continued to change due to capital driven industrial colonial activities, but the next big shift in population occurred from 1975 to 2000 when many species of phytoplankton began to die off dramatically as phosphorus levels went down.²³ These species have long been adapting to their environment, with some better able to change than others. Despite ongoing stressors such as “urban sprawl, chemical pollutants, agricultural intensification, land use changes, climate change effects ... habitat loss and invasive species” the phytoplankton population in Lake Ontario is currently stable and diverse.²⁴ Although the water in Lake Ontario is contaminated, and traces of our impact on the water are stored as chemicals in our bodies, the microbial life there has adapted and thrived. The lake is lively despite the damage we have done and will continue to thrive even if we do not. The capacity for microbial life to adapt to altered

environments provides hope for understanding our coexistence as an intra-animacy, and perhaps even an intra-intimacy—an attentiveness to and sensibility for what happens within a state of enmeshment.

MUDDY INTIMACY

My artwork is one way to experience the microbial presence and begin to gain a deeper understanding of the enmeshed nature of microbial bodies, as well as the reciprocal activity between humans and mud. Microbial life offers us a way to shift dualistic constructs – instead, thinking in terms of invisible fluxes where things are never one or the other, but always in constant negotiation. Mud and all the life within it, is the ideal material to consider our multitude of indefinite connections. Once we start to attune our senses to see the liveliness of material, we are taking a small step toward expanding our sense of responsibility to the communities of beings that inhabit shared worlds.

NOTES

- 1 I am interested in exploring the concept of “invasive species” further—what does it mean to be invasive when the lake has always been in a state of change?—in future texts.
- 2 Lisa R. Estepp and Euan D. Reavie, “The Ecological History of Lake Ontario According to Phytoplankton,” *Journal of Great Lakes Research* 41. 3 (September 2015), 669–87.

- 3 J.A Raven and S.C. Maberly, "Phytoplankton Nutrition and Related Mixotrophy," in *Encyclopedia of Inland Waters* (Cambridge: Elsevier Press, 2009).
- 4 Dr. Antony Joseph, "Magic With Colors: Sea Surface Changes," in *Investigating Seafloors and Oceans: From Mud Volcanoes to Giant Squid* (Cambridge: Elsevier Press, 2017).
- 5 Paul G. Falkowski, Tom Fenchel, and Edward F. Delong, "The Microbial Engines That Drive Earth's Biogeochemical Cycles," *Science* 320. 5879 (2008), 1034–39.
- 6 Stephen Ludwig and Anthony Rostain, "Family Function and Dysfunction," in *Developmental-Behavioral Pediatrics*, fourth edition (Cambridge: Elsevier Press, 2009).
- 7 Ibid., 115.
- 8 Jody Roberts, "Narrating a Past for New Futures," Proceedings from the *Toxic Symposium*, March 3, 2016. <http://www.toxicsymposium.org/conversations-1/>
- 9 Lutz Koepnick, *On Slowness: Toward an Aesthetic of the Contemporary* (New York: Columbia University Press, 2014).
- 10 P.E. Potter, J.B. Maynard, and P.J. Depetris, *Mud and Mudstones* (New York: Springer, 2004), 1.
- 11 Ibid.
- 12 The mud compacted overtime and eventually that pressure, and the degradation of the acrylic from UV exposure, led to the ruptures. I have since solved this material issue by switching to polycarbonate, a much more stable and flexible plastic—although still not impervious to small leaks.
- 13 Karen Barad, *Meeting the Universe Halfway* (London: Duke University Press, 2007), x.

- 14 Ibid., ix.
- 15 Natasha Myers, *Rendering Life Molecular: Models, Modelers, and Excitable Matter* (Durham: Duke University Press, 2015), 211.
- 16 Ibid., 205.
- 17 Ibid.
- 18 The Blackwood Gallery, "The Projects: Port Credit," Blackwood Gallery, July 30, 2009. <http://archive.blackwoodgallery.ca/exhibitions/2009/portcredit2009.html>
- 19 Michelle Murphy, "Alterlife in the Ongoing Aftermath: Exposure, Entanglement, Survivance," Proceedings from the *Toxic Symposium*, March 3, 2016. <http://www.toxicsymposium.org/conversations-1/2016/3/1/alterlife-in-the-ongoing-aftermath-exposure-entanglement-survivance>.
- 20 Ibid.
- 21 Ibid.
- 22 Lisa R. Estep and Euan D. Reavie, "The Ecological History of Lake Ontario According to Phytoplankton," *Journal of Great Lakes Research* 41. 3 (September 2015), 669.
- 23 Ibid.
- 24 Ibid.

5

TRUST FALL

Rubbing rocks & the irreconcilability of objects

Ted Hiebert

A gloomy landscape frames a worn yet charismatic stone, carried to the Alberta foothills centuries ago by receding glaciers. Around the rock is a trampled path of dirt and plants that was imprinted onto the land by bison who rubbed against the rock to shed their winter coats. Hidden off to the side is an artist, patiently gathering video footage of this rock and its material history. Thus begins a relationship between a migrant stone, a herd of prairie animals, and an artistic intuition about the importance of watching and listening to the environment around us.

Bison shed their tattered winter coats by repeatedly rubbing against this glacial erratic. The Rubbing Stone came from Mt. Edith Cavell near Jasper during the last glaciation surge which began retreating 15,000 to

12,000 years ago. A landslide probably thrust a chunk of the mountain onto a south-moving valley glacier. Today a trail of glacial erratics extends past Nose Hill through the town of Okotoks to Northern Montana.¹

A video of this stone is the centerpiece of a recent project by Maria Whiteman that examines questions of geological time and tells (or re-tells) the stories of the lands she encounters. The project—*Anthropocene*—is one in which the artist builds visual comparisons between geological and temporal scales. In the installation the stone is juxtaposed with videos of bison, of other environmental sites, and of close-up shots of grass, ice and water. One might read in this another form of rubbing—not out of the desire to remove a winter coat but rather to contrast the speed of various environmental vitalities. In Whiteman's work the stone is not just a stone but a metaphor—a “rubbing rock” that is also about reconsidering the visceral relationships we have with the landscape. At the same time, the stone is not a metaphor at all—it is actually a stone; it casts poetic elaborations aside and ultimately grounds the artistic gaze that engages it. And to make matters more complex still, if we are to talk of materiality in this way, we must admit that the stone is not even a stone—it is a video. And while it is not always fashionable to leverage the medium against its subject, in this case it is the medium itself that completes the loop, literally circling around the metaphor that is both itself while at the same time something other and quite distinct.

It takes an act of artistic intuition to hold together these forms of seemingly incompatible engagement, an act in which a stone becomes a node in multiple forms of incommensurable history: a piece of the earth itself, a “rubbing rock” for a herd of bison, a



Maria Whiteman, *Rubbing Rock*, photograph, 2016.
Image courtesy of the artist.

temporal voyager traveling on the back of glacial melt, an art installation, a talking point, a video. This essay meditates on the use of the rubbing rock in and around Whiteman's work, as a method for thinking about the meeting points of artistic and environmental complexity.

TRUST FALL

What would it mean to think about things from a perspective one might not normally adopt—say, for example, the perspective of a rock? Would it be anything more than a bad joke to suggest that, in this attempt, one might find a sense of solidity, of groundedness, that one might not otherwise have? Can thinking about a rock be transformative for a human?

Imagine: There is a rock perched indiscreetly somewhere in a prairie field. It is not a large rock, if compared to mountains, but compared to its surroundings it stands out. There is nothing around it, barely anything even on the horizon. Though by nothing, of course I do not actually mean nothing, just sameness to the rock's difference. Grasses, bushes, dust and dirt, and flat but sometimes rolling terrain. If one was to run a marathon one could simply pick any direction and already see the ending point. At the same time, however, in the farther distance, one can make out the cloudy shapes of hills, and behind them a mountain range. They are distant, but geologists say that this is where the rock came from, transported

down to the prairie ground by environmental acts of glacial expansion and melt. Carried on the back of global warming—the last time it happened. This rock is a residue from history warming up.



Tunnel Mountain, photograph, 2018.
Image credit: Wikimedia Commons.

But one could put this differently—even if it seems indulgent to do so. This rock rubbed up against the Earth, grinding the ground as glaciers relentlessly pushed it forward. Have you ever been pushed? It's not always pleasant. Unless it's a "trust fall," I suppose. But I'm not sure what the dislocation of this particular rock has to do with a trust fall, unless it's a trust fall gone wrong, a slow trust fall, one that took hundreds of years. When a human falls like that, it is said that we see the "world" flash before our eyes. So what happens when the world falls? Or a rock, as representative of a world that happens at a different pace than our own? A certain alienation; a certain disenfranchisement; a certain freedom. This may be one version of the story of how a rock becomes an individual. Maybe the prairie was there to catch it? Maybe in some way the rock is there to catch us?

It is not always considered appropriate to anthropomorphize in this way. But it is worth asking why not? Is there a danger that in anthropomorphism (an act of *imagining* if it is anything at all) one might lose track of the difference between what is real and what is not? Or worse: that one might lose track of the *distance* between reality and its proverbial double? Much hyped has been "critical distance" as a tool of the careful analytic, and yet there remains something a bit too clean about such distance, a bit antiseptic, a careful separation of oneself from one's object of study that—as a result—creates a (supposedly necessary) distance

between us and whatever we look at or think about. Critical distance is too clean, and clean distance has no landscape. Landscapes are dirty—land is literally dirt—and thus one must insist that to engage a landscape is *by nature* to get dirty in the process.

Alternatively, what if we understood critical “distance” as precisely that? A rock that came from *somewhere* came from somewhere *else*. There is thus a distance that must be considered in any relationship that it might have with the landscape in which it finds itself now. And, consequently, there is also a distance from us that we might not see right away, a distance proper to the rock, a distance that can only be seen from its perspective. In many ways, this is the more important form of distance. Not *our* distance from things, but *their* distance from us. I think Graham Harman is probably right on this: *the distance between us* is what guarantees a *relational* status to ontology. Harman puts it aptly in this context, speaking of withdrawn objects and the impossibility of ontological certainty.² But “withdrawn” is just another word for distant, and the idea of distance can just as easily be affective as geographic. I don’t assume that Harman attributes affective qualities to objects (in fact, just the opposite) but in my process of anthropomorphizing these rocks, I certainly might give them the freedom to feel, to hide or reveal histories and interactions, to share or relate. A withdrawn object is an ambassador of the geography from which it came. And this rock—deemed erratic by some—could also be seen as an ambassador sent by the mountain itself. As an ambassador, this rock would be

due a certain relational acknowledgment, a respect, a gesture of interaction. Perhaps more. I am reminded of the artists Amanda White and Alana Bartol who, in discussing their collaborative project—the *Deep Earth Treatment Centre*—suggest that soil (earth, dirt) has healing properties for humans and thus is due a gesture of kinship. They ask “what makes soil happy?”³ We might echo their sentiment and ask what might make this rock happy? It is an interesting question for the way it repositions the human in relation to the land, acknowledging the ambassadorial relationship that is to come.

Against the thesis of a rock as a withdrawn object, then, this is a theory of “critical proximity,” to use a term coined by Peter Sloterdijk in the 1980s.⁴ For Sloterdijk, the safe distance of critical thinking creates a false sense of (rational) security, a distance from the authenticity of encounter that is not due to the withdrawn nature of objects, but rather to the insistence on (purposeful) withdrawal implicit in established forms of human criticality. Better, for Sloterdijk, is to live in proximity to the question rather than at an intelligible distance, insisting thus on a performative and relational criterion of engaged thinking. Heidegger (an important foil for Harman and Sloterdijk) called it “questioning,” importantly emphasizing a verb-based form of interaction that does not suppose an answer but instead challenges itself to think meta-epistemologically (“questioning builds a way”⁵). One might equally call it circling—or rubbing. Seen through the anthropomorphic lens, it is not just a proximity that emerges, but an intimacy—a

critical intimacy—that insists on proximity as an act of rubbing. The rock rubs the landscape (literally). We rub the rock (critically). And thus relationships of proximity are formed.

If this feels too speculative, one could of course retreat to the established reasonability of critical distance. But one might also mediate the speculation by acknowledging it as such, affirming the temporary suspension of (philosophical) judgment in favor of the possibilities for (philosophical) engagement. One might invoke another German philosopher—Hans Vaihinger—who in 1925 proposed the philosophy of *als ob*, a form of thought governed not by fidelity to truth or established fact but instead by the relational speculations catalyzed by engaging with questions “as if” they were viable possibilities.

An idea whose theoretical untruth or incorrectness, and therewith its falsity, is admitted, is not for that reason practically valueless and useless; for such an idea, in spite of its theoretical nullity may have great practical importance.⁶

The “practical importance” of speculation in this context is relational—specifically a desire to think relationally as a retort to the implicit anthropocentric bias contained in the notion of critical distance. As Steven Shaviro eloquently insists: “a certain cautious anthropomorphism is necessary to avoid anthropocentrism.”⁷ And whether one wants to see this form of speculation as an attempt to establish “critical

proximity” or to explore the postulates of Vaihinger’s “as-if” is ultimately less important than the way such modes of thinking are able to throw the question back on *us* as the uncertain party in the relationship. The rock doesn’t care if we understand it; its sense of time far out-imagines our own. So it is not the rock that is accountable to our understanding but just the other way around. Speculation at this limit is a trust fall, and like all trust falls, it is an exercise in relationship building.

I am rubbing theories against themselves—or against each other. The rubbing is not a competition. It’s a strategy to try and tease out possibilities. Maybe even to try and create an opportunity for a metaphysical trust fall.

FRIENDSHIP

What happens when a rock finds a home that wasn’t where it lived before? Or when it is set into a place from which it no longer moves? Can a rock have a memory of where it came from? One possibly etched into the surface of its ... surface? Can a surface be a skin? What would one call the public membrane of an ancient solid object? And what would be a reason to rub up against it?

Imagine: There is a rock grounded solidly in a prairie field. It has been there a while. Estimates place its presence at this particular site at over 10,000 years. And because it came from somewhere else, it must

surely be older still. It used to be mobile; now it is not—or at least not in the same way. It has perhaps become a landmark. But it might be important to note that the rock itself had little say in this decision,



Maria Whiteman, *Rubbing Rock*, photograph, 2016.
Image courtesy of the artist.

deposited as it was by glacial movement. One could call this monument a by-product but that would just be a way to disempower and deflect from the agency the rock gathered in the process. Truth be told, it was the rock itself that was deposited, that still sits in this place, that persists. The glacier has long since vanished.

Its surface is rough in some ways and smooth in others, like maybe only a rock can be. One might say that it is very rock-like, this rock, which might go without saying unless one was looking for a place to begin the task of forging possible relationships. This identity is only accentuated by the fact that there are no other rocks in the immediate vicinity, making this particular rock stand out all the more. It is a feature of its landscape. It is both alien and monumental. The rock seems proud, unmovable, stoic, maybe even lonely.

But if one knew anything about this rock, one would know that its surface is smoother than it used to be. And if one were patient and in a position to watch—in a historical sense: to observe the passage of this stone through time—one would see why. Every spring, for dozens if not hundreds of years, herds of bison make an annual pilgrimage to this rock. And they circle it, rubbing up against it in a choreographed group performance, circling around and around, rubbing against the stone until their thick coats of winter hair begin to fall off from the friction of intimacy, in preparation for warmer months to come.

Rubbings of this sort require skins and surfaces, frictions and relational exchange. It makes me think of Jane Bennet's "vibrant materialism" as a way to contemplate these forms of environmental encounters.⁸ I take Bennet's theory for its resonant qualities, its emphasis on the vibrational, noting that with things "vibrational" it is the skin that vibrates—not a phantom essence necessarily but a resonant absence based on a vibrational cavity. For a vibration to resonate it is not matter that matters but emptiness. Vibrational immaterialism—not a counter-thesis to Bennet but simply another way to look at the same set of relationships; not as a vibrancy of matter but as the relational intensity of immaterial interactions. Resonance as rubbing. In Bennet's words, "turn[ing] the figures of 'life' and 'matter' around and around, worrying them until they start to seem strange. ... In the space created by this estrangement, a *vital materiality* can start to take shape."⁹ What is so compelling about such a theory is not only its infusion of vitality into objects and relationships historically dehumanized and thus dismissed. Rather, the impact of vitalizing a question in this way is to also radically de-center the human such that Bennet's "strangenesses" are no longer to be known in the traditional way: not possessed or operationalized, not contoured or explained, not mastered or objectified. No more critical distance; in a relationship with vitalized matter one must be part of the interchange, "worrying" the question, rubbing against it, vibrating. One might even propose the challenge of forming—at best—a friendship with this constellation of strangeness.

In a beautiful essay on her personal relationship with a horse, Johnny Golding meditates on what it means to construct friendship across species boundaries, emphasizing that relationships of this sort are built on a form of engagement that unseats the dictates of logic and common sense in ways that—at times—can seem almost magical.¹⁰ Friendship, for Golding, involves (among other criteria) a “certain kind of attunement, a certain kind of reaching out, a certain kind of response, a certain kind of respect, and a certain kind of play.” I am less concerned here with the details of a relationship between a human and a horse, and more concerned with those between a rock and a herd of bison—but I think certain key concepts apply. Imagine attunement, respect, and response in the activities of the bison. Imagine Bennet’s work on turning figures “around and around” and consider that hands might not be the operative agents here—that bodies can turn themselves around and around as well—like bison on a rubbing rock. There is a psychogeography here—a key formulation because of its insistence on the irreducibility of place to geography, and the concomitant insistence on the psychological experience of being (affected by, but irreducible to, place). It is more than phenomenological, though it is that too—more because, in this case, phenomenology doesn’t matter, disappearing (as it must) into the *experience of itself*. This is philosophy that rubs itself against an encounter until it sheds its old skins and forgets itself in proximity to another.¹¹ Golding calls it “radical mattering.”

For friendship and philosophy the same: the true destiny of engagement is to forget that it is philosophical (since it is motivated by the pragmatics of proximity). This could also, strangely, be seen as a resonant paraphrasing of the concept of non-philosophy (à la François Laruelle)—but that too can (and probably should) just go without saying. As Laruelle declares, “The question of ‘what is non-philosophy?’ must be replaced by the question about what it can and cannot do. ... [N]on philosophy is ‘performative’ and exhausts itself as an immanent practice.”¹² The only purpose of philosophy, thereafter, is to assuage insecurities about the philosophical merits of not caring about philosophy. In a strange way, it is decidedly pataphysical—invoking Alfred Jarry’s “science of imaginary solutions” that is also an examination of “the laws governing exception,” with a focus in particular *on* the particular.¹³ Against the idea of a generalized science, for pataphysics (as for Laruelle) every moment is purposefully exceptional because there can be no overriding principal, and every moment reinforces the overriding principal of exception because there is no other purpose uniting them.¹⁴ The Collège de ‘Pataphysique has a set of terms to help with this distinction: those of voluntary and involuntary practice—insisting that one can practice an activity or a philosophy without necessarily knowing that it is what one is doing. It might be called accidental philosophy. Similarly—ostensibly—one can act (and perhaps always already is acting) phenomenologically without necessarily knowing that this is what one is doing.

Actually, better than pataphysical would be to call it ecological. Like the buffalo. They are, by definition, part of the ecosystem in a way that humans are not (anymore). For them, a once-transient rock becomes an instance of social architecture. Collectively polished by their bodies. The rock is impacted too. Like the old stone steps one might see in churches or medieval castles—the stones worn by passage. Like Richard Long’s field drawings, lines etched into the earth through dedicated acts of walking. Like rivers cut into the body of the earth by glacier melt, gradually wearing out a pathway downwards for as long as it takes to consolidate momentum. Like a rock moved (in all senses of the word) by an act of glacial drift.

I am rubbing theories against themselves—or against each other. It’s not a competition. It’s a strategy to try and tease out resonances. To create echoes or relationships or vibrancies or friendships. The materiality of such a strategy is immaterial.

SUPERSTITION

If bison can rub against rocks can humans do it too? We might lose a different layer of skin, rubbing off skin itself—or its metaphor—in the process of establishing closer proximity. With less skin between us, we are closer together. But that’s a bit creepy. Maybe better to rub up against the story rather than the rock—the story of the bison perhaps, rubbing vicariously the rock by imagining the experience of the buffalo themselves. It’s an interesting idea to rub up against.

Imagine: There is a rock in the center of a prairie field. The day is cold—or at least that’s how I imagine it. But the rock would feel none of that—not because rocks don’t feel but because the idea of a day would almost certainly be foreign to a rock, and to this rock in particular. To a human who has lived less than 50 years, this rock seems ancient. To a rock who has existed for hundreds or thousands of years, this human must seem ridiculous, fleeting, perhaps even ephemeral.

This day is conspicuous however, for on this day it is not a herd of bison come to visit the rock, but a human—an artist—rubbing up against its surface in very different ways. In the lifetime of a rock, this visit may have gone entirely un-noticed, and indeed it is quite possible that the artist had little intention of changing the rock. She was just taking its picture, indulging a moment of respect, meditation, or representation in order to share the experience with others. But in this fidelity to a system of representation, it is not the rock that is the subject of the artwork but the artwork that is subject to—or that subjects itself to—the rock. That’s how representations work—especially that kind where you hold a piece of paper onto the surface of the rock and rub with a piece of charcoal. But in this instance a photograph would be allegorically similar (even while technically different), still registering the surface as it reflects light into the camera lens. And seen on a geological scale (from the perspective of the rock, who is the subject after all) all videos are photographs: too short in the larger scale of time to be anything more than an instant themselves. Honestly, lives are



probably like that too, though it takes a certain feat of imagination to conceptualize it in this way. Not that life is flat, but that photographs and drawings and videos are deep—and that stones are deeper still, even though they seem to not refer to anything at all. Until one takes the time to rub up against them.

When he was a graduate student, my father specialized in the study of stress control and relaxation.¹⁵ As a result, I grew up in a household filled with what seemed to me, as a child, strange and wonderful contraptions. There were machines that could read and interpret one's heart rate, breathing, or brainwaves; there were thermometers meant to be held and interacted with; there were little black dots that changed color when placed on one's hand; and there were small stones whose purpose was to help control anxiety. They worked by rubbing; my father called them "worry stones." I haven't done the research to know whether they are legitimately therapeutic, in part because I want to preserve the psychosomatic relationship I already have to these little rocks. To preserve a superstition, even if it's not a superstition—to *choose* superstition as a productive modality of encounter. And to my superstitious mind, these worry stones work—against them one rubs away worries, soothing

Maria Whiteman, *Touching Rubbing Rock*,
photographs, 2016. Image courtesy of the artist.

anxieties, shedding the old psychological coats grown from the simple acts of living. This is the sense in which superstition is a trust fall—an act of suspended disbelief, conducted for the sake of sustaining another form of relationship. This is not Samuel Taylor Coleridge’s “willing suspension of disbelief for the moment that constitutes poetic faith”¹⁶ but an extrapolated version of aesthetic logic brought into the material world. Suspended disbelief as itself a form of trust fall, into the artwork or poem—or indeed, into the orbit of a rock and its story.

To update Coleridge’s theory for more contemporary times is to note that the challenge to move beyond anthropocentric ways of thinking requires leaps of faith in sometimes counter-intuitive directions. I think in particular of René Magritte’s much-discussed painting—*The Treachery of Images*—that depicts a pipe with the words beneath it that say “this is not a pipe.” The deceit of representation is, of course, that it portends to be transparent—invisible in the sense that we *see through* a representation, often to the point where we don’t even acknowledge it as such. That is Magritte’s complaint. Except that in the 21st century we are well beyond such a critique, and it is established fact that representations can and do lie, and what Magritte called “treachery” is now simply the starting point for visual analysis. Hence the fashionable insistence on critical distance, so as not to be subsumed by the allure of the image.

But just as a certain form of proximity might be seen as a remedy for the conceit of anthropocentric distance, perhaps a certain kind of superstition is due the image in order to fully acknowledge the charm of

representation. And perhaps that's the really strange part—a place where aesthetic strategy can be a viable method for building relationships with the unfamiliar precisely because art has always required a certain kind of leap of faith (suspended disbelief). This is not to claim that everything must now be seen as an artwork (though that would be an interesting, if different, line of speculation). Rather, it is to insist that that mode of encountering the world normally reserved for looking at art (aesthetics) may be particularly relevant to the times in which we live for the very simple reason that aesthetic thinking has always been premised on building relationships with strange things that demand a certain different and equally strange mode of engagement. Let's call it curiosity, for the moment (though I might equally call it superstition, trust fall, friendship). That art demands curiosity is not to insist that curiosity demands art—though it might be to suggest that a curious way of looking at the world suspends a certain form of judgment (or disbelief). It does so even though it knows it doesn't have to. It does so even though it knows a judgment or expert analysis might wield more (anthropocentric) power. Curiosity (or aesthetic thinking) invests in the suspension of pre-established ways of looking. It is superstitious—in all the best ways, invoking the powers of interpretive engagement, making strange and making us realize what is strange already if only we bother to notice, to rub up against it, to turn it around and around (or to rub ourselves around and around it): to become present. And that's what I appreciate most about the place from which this meditation started—Maria Whiteman's *Anthropocene* installation, in which

the rubbing rock features large. A rubbing rock is a literal demand to rub up against the constellations of speculation in play. A challenge to get closer. A demand to slow down and think about the different paces of environmental, geological, and animal times. An insistence that one mode of interaction does not override or underwrite others—thus geological, seasonal, human, and momentary forms of time and analysis interact, supplement, and expand each others' horizons of possibility. The result is an invocation of a rock—or an artwork—as an irreconcilable object, but one with which relationships are nonetheless possible.

But it is also possible that this dynamic is not located on the rock but in the action of rubbing. That is, it may not be the rock that matters (in a material sense) but the act of proximity that congeals into material manifestation. Friction is the secret ingredient in the recipe for aesthetics and superstition, alike.

I am rubbing theories against themselves—or against each other. It's not a competition. It's a strategy to try and provoke curiosities. To materialize superstition as a viable strategy for the incantation of post-anthropocentric possibility. To consider worrying as a viable method for invoking change.

CONCLUSION

What if an artwork was like a rubbing rock? As viewers, we rub against it until the space between us becomes a little bit less than it was before. It came from somewhere else, but it becomes part of an architecture

of encounter that we inhabit too. Are we in its space or it in ours? The disorientation caused by this question is the reason why distance is not an answer. And that's why proximity is not an answer either, except that proximity does not necessarily demand an answer—being proximate to the situation and thus part of the body that would be demanded upon no less than that doing the demanding. Proximity short-circuits the mode of questioning particular to distance.

Imagine: There is a rock in the center for a prairie field. Except that I am not in a prairie field, so I guess the rock is not there either. Or it might be, but that's not the rock I am seeing. I am seeing a rock in the center of a wall, photographed and framed. It is not actually a rock but a representation. But I rub up against it nevertheless—well, not literally of course. So I guess I don't rub up against it, both because it is not itself and I am not talking about that kind of proximity. But what kind then? And what is it that I am actually doing when I look at this rock that is not itself and rub up against it in ways that don't require actual proximity? I could rub myself against the photograph, but that seems weird: it's not the usual way of rubbing up against photographs.

It may seem pedantic to state these obvious qualifications of my experience with the rock—or the video, or the photographs—or indeed their digital representations that promise eternal circulation at the cost of material encounter—but it's not. It's about solidifying them. If we were talking about clouds it would be the wrong thing to do (ephemerality and

all). But we are talking about rocks. And really, the challenge should be to think ourselves as solidly in their company as they are in ours. Or to realize our ephemerality in contrast to their longevity.



Maria Whiteman, *Anthropocene* installation, 2017.
Image courtesy of the artist.

That it borders on a gesture towards incoherence is part of the point, or perhaps simply part of the problem with theories of proximity and methods of anthropomorphism that too stubbornly try to constitute problems from experience and thus risk missing experience for the ways it might otherwise manifest. There is perhaps more solidarity in the ambiguity of encounter than there is in a firm articulation of trouble.

A trust fall.

A friendship.

A superstition.

An artwork.

NOTES

- 1 Beryl Hallworth, ed., “Nose Hill - A Popular Guide.” Calgary: Calgary Field Naturalists’ Society, 1988. As cited in Maureen Flynn-Burhoe, “Rubbing Stone in Nose Hill Park,” <https://www.flickr.com/photos/oceanflynn/1520725524>.
- 2 Graham Harman, *Tool-Being: Heidegger and the Metaphysics of Objects*. (Peru, IL: Open Court, 2002), 1.
- 3 Amanda White & Alana Bartol, “Notes from the Deep Earth Treatment Centre,” in Ted Hiebert, ed. *Naturally Postnatural—Catalyst: Jennifer Willet* (Seattle: Noxious Sector Press, 2017), 170.
- 4 Peter Sloterdijk, *Critique of Cynical Reason*, Michael Eldred, trans. (Minneapolis: University of Minnesota Press, 1987), xxxiii.

- 5 Martin Heidegger, *The Question Concerning Technology and Other Essays*, William Lovitt, trans. (New York: Harper & Row, 1977), 3.
- 6 Hans Vaihinger, *The Philosophy of "As if": A system of the Theoretical, Practical and Religious Fictions of Mankind*, C. K. Ogden, trans. (New York: Harcourt, Brace and Company, 2009), viii.
- 7 Steven Shaviro, *The Universe of Things: On Speculative Realism* (Minneapolis: University of Minnesota Press, 2014), 61.
- 8 I am attentive to Bennet's project of decentering the human while still insisting on a materiality of thought, especially insofar as she attends to strategies for engaging with "a trenchant materiality that is us as it vies with us in agentic assemblages," a phrase I take to mean a certain insistence on a horizon of material engagement not contoured in advance by human conceptualization. See Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham: Duke University Press, 2010), 111.
- 9 Bennett, vii.
- 10 Johnny Golding, "Friendship," in L. Turner, U. Selbach, and R. Broglio, eds. *The Edinburgh Companion to Animal Studies* (Edinburgh: Edinburgh University Press, 2018), 262-276.
- 11 I'm thinking of Laruelle's insistence that the non-philosophical must go beyond philosophy to a point of engaged action and performance. While he doesn't go as far as calling this a disappearance, the phenomenological destiny of such engagement seems to demand—at a certain point—exactly that kind of proximity from which a distanced contemplation becomes impossible. François Laruelle, *The Non-Philosophy Project: Essays by François Laruelle* (New York: Telos Press, 2012), 219.

- 12 Laruelle, 207.
- 13 Alfred Jarry, *The Exploits & Opinions of Dr. Faustroll, Pataphysician*, Simon Watson Taylor, trans. (Boston: Exact Change, 1996), 21-22.
- 14 In their book of pataphysical keywords, the Collège de 'Pataphysique defines "voluntary and involuntary" forms of engagement, characterizing the latter as a form of "beautiful ignorance." See Collège de 'Pataphysique, *101 mots de la 'pataphysique* (Paris: PUF, 2016), 25.
- 15 See Bryan Hiebert, *Learn to Relax: A step by step guide* (Toronto: Lugus Books, 1993).
- 16 Samuel Taylor Coleridge, *Biographia Literaria*, ed. J. Shawcross (Oxford: Clarendon, 1907), xiv.

6

(UN)WELCOME PLANTS

Considering the political, cultural,
and ecological life of some common
wild plants

Amanda White

We walk on plants, often unconsciously, particularly inattentive to common wild species and though this is unavoidable or perhaps even by design it also strikes me as a metaphor for how some plants are dismissed more deliberately. I thought to elaborate on the idea by creating a series of handmade rugs—conceptualized as both “walking” mats and “welcome” mats. Walking for the acts we already do anyways. Welcoming for the possibility of considering different nuances to our relationships with these plants. The series of handmade rugs that follows, each depicting a common plant in the form of a “welcome mat,” provokes consideration of relationships with these plants, and the way in which terms like “invasive” and “weed” tend to be descriptors used for those who are actually

unwelcome or unwanted. Door mats or welcome mats are functional, but also historically in western culture they provided a message to guests, sometimes superstitious, but often welcoming—as a measure of hospitality.¹ Welcome mats are designed specifically to sit in the space between the outside world and the inside. As objects they represent a threshold, cueing the movement between one space and another. The placement of door mats also reinforces the separation of natural and human spaces—indoor and outdoor—but the plants that I choose as the subjects of my work tend to exist exactly in that same in-betweenness. These species remain close to humans—always underfoot and travelling with us—for some as welcome kin, and for others an uncomfortable reminder of the slippery distinctions between the human and the natural world, particularly from the Western worldview that wants to maintain this divide.

My work examines common plants that live around humans, in urban or disturbed lands, those that have long-held cultural significance but which are often overlooked or even eradicated in the service of dominant colonial and capitalist cultural worldviews. While historically or in alternate geographies these plants may have been welcome neighbors—used for food and medicine—such plants have also been labelled with negative terminologies: pests, weeds, or even the more contentious designation as invasive, in the language of land conservatists and official management structures, both legal and governmental. I am interested in the migrations and histories of these plants and how they are considered.



Amanda White, *Plantain*, wool and plant fibres on cotton cloth, 22x 30", 2021.

Common plantain or broadleaf plantain are hardy common plants. They are nutritious and edible and have medicinal qualities. Plantain has some native relatives but is itself an introduced species in North America that has now proliferated globally. Plantain grows in lands disturbed by humans, with thick leaves that have literally evolved to be walked on, making them a very familiar sight in urban environments, plantain's roots can help to rehabilitate compacted soils.

I am especially interested in observing those that live where I live too. It is my hope that these mats and this text will provoke questions around relationships, as well as lessons these plants might reveal, through positive and cautionary examples of living peaceably and harmoniously with others, both human and more than human.

NEIGHBOURS

I live in Toronto, which is in the Dish with One Spoon treaty territory; an agreement made between the Anishinaabe and Haudenosaunee nations to peaceably share and care for the land. Toronto is also covered by Treaty 13 with the Mississaugas of the Credit as well as the Williams Treaty signed with multiple Mississaugas and Chippewa bands. According to the Two Row Wampum treaty made between the Haudenosaunee confederacy and early European settlers on Turtle Island, Indigenous and settler people agreed share the land as neighbors, coexisting with peace, friendship, and mutual respect, without interfering in each other's way of life.² Despite these agreements, the systems and policies that govern so-called Canada have proven hostile to the ideals, resulting instead in the pursuit of violent colonial territorial claims. My ancestors are white settlers from Ireland and Scotland who settled in areas of present-day Ontario in the early to mid 1800's, on Treaty 2 (present day Comber, south-western Ontario), Treaty 20 (present day Peterborough area), and present-day Toronto, where I live now. Settlers,

like me, have benefitted a great deal from this legacy of violence and broken agreements and therefore have a responsibility to better understand the treaties, their original intentions and how that should shape our relationship to land. We need to work to dismantle the persistent influence of colonial worldviews that are incompatible with upholding these laws and the good relationships they were designed to foster.



Amanda White, *Dandelion*, wool and plant fibres on cotton cloth, 22x 30", 2019.



In ecological terms when a species becomes invasive, it interferes by taking over, crowding out the existing species in their environment. This can be a major disruption, and indeed invasive species pose a serious global environmental threat.³ The term “introduced” is often mistakenly used interchangeably with the term “invasive”, and while invasive species are usually also introduced, introduced species can coexist peacefully without being invasive, or even become beneficial in their communities. In the book *Braiding Sweetgrass; Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants*, Robin Wall Kimmerer talks about this in relation to humans, and the lessons that settlers can learn from a plant like Common Plantain. She explains that plantain is used in a lot of traditional Indigenous medicine, but one of its common names is “White Man’s Footprint” because it is said to have arrived with early settlers. Kimmerer argues that plantain has become “an honored member of the plant community; its strategy was to be useful, to fit into small spaces, to coexist with others around the dooryard, to heal wounds. living as a good neighbor it has become naturalized”.⁴ She elaborates that to become naturalized to a place, is to, “begin living as if your children’s futures matter, to take care of the land as if our lives and the lives of all of our relatives depend on it, because they do.”⁵

Amanda White, *Dandelion (detail)*, wool and plant fibres on cotton cloth, 22x 30”, 2019.

ALLIES

In the introduction to the book *Arts of Living on a Damaged Planet*, Anna Tsing writes that “living in a time of planetary catastrophe begins with a practice at once humble and difficult: noticing the worlds around us.”⁶ Through the Covid-19 lockdowns in 2020, my own daily experience became a routine of this kind of noticing that extended to a close examination of the hyper local environment in the urban neighborhood where I live. Outdoor activity for my family became daily walks and bike rides through alleyways and unofficial (and thus still open) green spaces. There, we would notice things with fresh eyes, paying close attention to the plant beings who took up these spaces. I felt so much gratitude for their presence, for their existence but also their symbolism through difficult times rife with fear and anxiety. These plants were not just signs of life but super-resilient life, life that survives and thrives in the face of difficulty, life that finds a way and a space for itself against all odds. I was so thankful for these plants and what they showed us at that time of isolation. Nicole Rose describes the relationship with plants as friendship and a means to learn how to deal with the isolation and trauma experienced by incarcerated people; “All the plants, animals and ecosystems in the world want recovery, they want freedom, they want health—and with them as allies, we are never alone.”⁷

There are many plants that require human intervention in order to survive, such as those who have been cultivated and selectively bred for food or ornament. There are also many plants who *choose*

human proximity to make a home; species who thrive in our company, not because they rely on our care to survive, but because they are naturally adapted to the disturbed lands and soils that are the result of human activity. “We are their natural ecological partners, the species alongside which they do best”.⁸

While the present-day status of human relationships with some common wild plants may indicate otherwise, the truth is that many, if not all of these species have deeply tied historical and cultural relationships with humans that are sometimes global in scope and often ancient in human time. Humans have naturally found uses for many plant neighbors, perhaps due to resourcefulness since they are always so close (literally underfoot) or maybe we have made efforts to keep them near us for their useful properties. Who is to say which came first? Dandelions for example have a historically undeniable and reciprocal relationship with human neighbors. They are most comfortable around us, yet this feeling has not always been mutual in dominant cultural views through time. Dandelion is an introduced species in many places, originating likely in Asia and Europe, and now naturalized around the globe in the Northern Hemisphere.⁹ While dandelion seeds could easily hitch a ride on any unknowing traveller (clothing, shoes, soil) It is believed that early European settlers brought dandelions to Turtle Island/North America intentionally as a food and medicine source. Thus dandelion was not just introduced—which could imply accidental movement—their introduction was deliberate.

Dandelions propagate on their own. They prefer a sunny location but can live almost anywhere by establishing a single, long taproot. The plant grows year-round with a circular rosette of leaves that goes dormant in the cold. Each bloom sits atop a single long hollow stem. Because they are a common neighbor to humans in many places, the dandelion has names in many languages. The English name dandelion comes from the French *dents de lion* which means lion's teeth, likely referring to the shape of its leaves (which resemble the canine teeth of a lion). They have an ancient and global history of cultural significance to humans as food, medicine and children's games, along with a wide array of metaphorical and symbolic cultural meanings in the arts and literature.

In Ontario, Canada, categorizing dandelion as a weed was common in recent generations, including spraying on private property and public spaces such as roadsides explicitly to get rid of the plant. In 2009, many herbicides were banned and people who disliked these plants have had to learn to see them through a different lens. I recall as a kid being tasked with removing dandelions from our yard with a digging tool and cautioned that leaving even one plant could infect the whole yard with seeds. This negative view of a plant who is ubiquitous but does not pose ecological harm—and was in fact introduced on purpose by humans—raises all kinds of interesting questions about the cultural specificity of value judgements and their changes over time.

NAMES

What is a weed anyway? Until very recently the city where I live had very vague laws about what kinds of plants people could grow. Specifically, there was a *Grass and Weeds* by-law that indicated a maximum height for any plants that did not appear to be part of a managed garden space, and prohibited noxious and local weeds as designated under the Ontario's provincial *Weed Control Act*. This by-law suggested that a description of what constitutes a weed could be found in the *Weed Control Act* but this is only partially true; noxious weeds are named and listed in that Act, but the definition of local weeds by contrast remained un-defined.¹⁰ The *Weed Control Act* states that each municipality designates a weed inspector who has the authority to label any plant a weed provided it is not already designated as noxious.¹¹ While the *Weed Control Act* remains unchanged, in January 2022 the local bylaw was officially changed as a result of many years of community members lobbying to encourage natural garden spaces and promote biodiversity in the city. It is now called *Turfgrass and Prohibited Plants* rather than *Grass and Weeds* and includes a specific list of prohibited plant species.¹²

The word “weed” has negative associations (to weed something out) and while it is used as a blanket term for any wild plants, sometimes called volunteers, it is more often a descriptor that simply refers to the fact that the plant is not wanted. In his book *Weeds: In Defense of Nature's Most Unloved Plants*, Richard Mabey asserts that “the simplest definition is that a

weed is a plant in the wrong place.”¹³ Thus, from this very vague description which tends to be generally agreed upon, one can surmise that the definition of a weed is fluid, it is not a description of any aspect of the plant itself, rather it describes the values and tastes or interests of the gardener, observer, or municipal weed inspector who names it “weed” at a particular time and place. By this definition, the weed does not exist, but is created by the aesthetic and cultural ideals that surround it. The designation of a weed is a small piece of a larger culturally specific ideology



about what “nature” is, and what it should look like. The term discloses who has the power to define spaces and the species that belong there, and by extension those that do not (including the plants themselves, who most certainly believe themselves to be in the right place).

Maybe writes that, “Plants become weeds when they obstruct our plans, or our tidy maps of the world.”¹⁵ This statement begs the question: to whose “tidy maps of the world” does he refer? Many scholars have expanded upon the way in which the

Amanda White, *Knotweed*, wool and plant fibres on cotton cloth, 22x 30”, 2021

Knotweed, or Japanese Knotweed as it is commonly described is native to volcanic rock in Japan and was introduced globally as an ornamental garden plant. Knotweed can thrive in even the most difficult environments and spreads by deeply rooted rhizomatic systems. This plant is not only edible and medicinal but said to be a delicious delicacy and a concentrated medicine. It is often found along waterways, where it can cause damage as these plants tend to cluster and crowd out others. Known to be difficult-to remove and easy to propagate, in some places in the UK you can sue your neighbor for having it growing in their adjacent garden.¹⁴ It is believed that all of the knotweed introduced outside of its natural habitat are the clones of one single female plant.

visible landscape and its representations are part of larger projects of imagining imperial power, defining territory and controlling land.¹⁶ In this view, landscape is “not an object to be seen or a text to be read, but a process by which social and subjective identities are formed.”¹⁷ Sarah Besky and Jonathan Padwe explore this in relation to plants themselves in their text *Placing Plants in Territory*, describing the way that agriculture, and specifically monocultures and plantations are part of defining space:

projects of state territorialization are simultaneously resource control strategies, they help us to see how plants—their arrangement upon the landscape, the uses to which they are put, their incorporation into markets, their meanings—become enrolled in territorial projects along contested agricultural and resource frontiers. Here the production of legible landscapes represents a territorial strategy, one closely related to projects of surveillance and control.¹⁸

In this instance, territory refers to the extension of power over space, involving processes of boundary making, surveillance, control, exclusion, and defense. Colonial projects such as the nation of Canada and its focus on territorial control relied on imperial concepts of property and the belief that ownership of land could only be realized through European-style agriculture.¹⁹ In this strategy, imperial goals are made visible and physical through planting specific kinds of species in specific and controlled formations, which

involved erasing existing environments and replacing them with new ecologies, species, and configurations. Visualizing power through implementing euro-agricultural landscapes is part of the violence of the “civilizing mission” of colonialism and the ownership of land that it seeks to assert.

Plants are also used as boundary markers to signal property ownership or occupation on smaller scales such as home gardens where species and planting styles indicate individuated aesthetics, and—by extension—cultural allegiances. For example, the aesthetics of the garden, and the English garden in particular, is another expression of colonial power implemented through “neatly categorized and taxonomized plants,” and the display of exotic plant species, and aesthetic tradition derived from the colonial practice of plant collecting and bioprospecting deeply rooted in the age of discovery.²⁰ However, as Besky and Padwe remind us, gardens can also be sites of insurrection because plants are living things; “they are both ruled and always at risk of becoming unruly.” Plants can go feral.²¹

Not surprisingly, many weeds are in fact feral species, those who live in the wild but are descendants of domesticated plants. This origin can be either ornamental or agricultural and sometimes both; dandelion, knotweed and garlic mustard are some common examples. In plant ecology, a feral species might be called introduced or escaped. I like the term escaped since it relates to the way in which control figures into their categorization in the first place.

In Banu Subramaniam's text, *The Aliens have Landed! Reflections on the Rhetoric of Biological Invasions*, the author notes that nearly all crop species in North America are exotic plants, while most of the insects that cause crop damage are actually native species."²² Subramaniam further argues that the designation of "alien" and other negative terminology towards certain plants is a matter of discipline and control; if the crops stay in their place, as workers, laborers, providers and commodities, they can be tolerated.²³ However upon escape they change categories and become uninvited, ultimately running the risk of being put to death.

The designation of the broad category of weed is not only subjective, it is also part of a cultural aesthetic of land-control derived from settler-colonial worldviews. There are other words and terms used to describe various common wild plants, specifically in relation to their behaviours and general attributes such as invaders, aggressive, predators, etc., that certainly merit further exploration. There is an extensive existing body of literature and debate around words such as "alien," "exotic," and "invasive." Cultural theorists and conservationists have long expressed concern with the inherent xenophobia that such terms tend to evoke, right down to the name of the field—Invasion Biology—in which these conversations unfold.²⁴ While some argue that the metaphors and language of threat and combat may mobilize the public towards ecological concern, most agree that it relies on and reinforces particularly violent and racist ways of doing so and are ultimately problematic.²⁵

CHEEKY

The problematic of naming—especially when seen as an example of military language and war metaphors—has an effect on our relationships with plants and our potential future relationships with them. In *the War of the Roses: Demilitarizing Invasion Biology*, Brendon Larson considers the similarity between the rhetoric of invasive species and health, pointing out that while Western medicine “fights,” “attacks,” and “battles” with health issues, other frameworks such as Traditional Chinese Medicine take a more restorative approach in language and practice.²⁶ In a research paper titled “Speaking About Weeds: Indigenous Elders’ Metaphors for Invasive Species and Their Management,” Larson and co-author Thomas Michael Bach search for alternatives to this colonial lens and violent language. They offer an analysis of the language used to describe so-called weeds, their metaphors, and the relationships to land stewardship used by Indigenous Elders in a case study in northern Australia.²⁸ Rather than using words such as “aggressive” or “invasive” the authors noted that Elders most commonly used the word “cheeky” to describe the behaviour of environmental weeds. Cheeky in this instance could refer to either native or introduced plants; it was not necessarily a negative descriptor, only a recognition that the plant might need to be monitored. The larger focus was on sustaining a “healthy country.” For the Elders, the English term “country” describes all of the sentient and non-sentient parts of the world and the



Amanda White, *Goldenrod*, wool and plant fibres on cotton cloth, 22x 30", 2020.

*There are many species of Goldenrod, most are native in North America even though it is often mis-categorized here as an introduced species, however, it was originally introduced to in the UK and Europe from North America. It is also sometimes falsely described as an allergen.²⁷ Goldenrod is also a medicinal plant; the species Latin name *Solidago* means "to make whole."*



Amanda White, *Thistle*, wool and plant fibres on cotton cloth, 22x 30", 2020.

Canada Thistle is an introduced plant that is often miscategorized as native. Despite its name, Canada Thistle or Creeping Thistle is not a native species and was introduced from Europe and Western Asia. However, both in Canada and in the countries where it is native it can damage cropland. It also has several edible and medicinal parts.



interactions between them. The goal of conservation efforts and concerns is to look after and care for Country, to assess whether Country is healthy. While Country could be made sick the effects of a plant were judged only in terms of whether it positively, negatively or neutrally affected the health of Country in a specific location.

In this framework, it is not a given that individual species, plants or otherwise, will have negative impacts. Identifying and eradicating or controlling individual species is not the focus of this framing. In a similar argument against reducing plants to good and bad actors, Wendy Mankoons Genuisz writes in the preface to the book *Plants have so much to give us, all we have to do is ask; Anishinaabe botanical teachings* that according to the teachings she received, “plants are thought of as beings with their own histories, stories, beliefs and ways of life.”²⁹

It is my hope that this work will be able to provoke questions and considerations of worldviews and relationships through examining plants who may sometimes sit in the culturally specific threshold between welcome and un-welcome, but who are also living beings that exist on their own terms, with their own relations and motivations beyond human control and meaning.

Amanda White, *Thistle (detail)*, wool and plant fibres on cotton cloth, 22x 30”, 2020.

NOTES

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- 2 Susan M. Hill, *The Clay We Are Made Of: Haudenosaunee land tenure on the grand river* (Winnipeg, University of Manitoba Press, 2019). As Hill writes, The Two Row Wampum or Kaswentha, was an agreement between the Haudenosaunee and the Dutch made in the 1600's, and is foundational in several ways: "It is believed to be the first treaty between Europeans and Native Americans" and further that "The philosophies it was built upon not only were central to later Haudenosaunee treaties but were borrowed by the Europeans in their dealings with other Native nations", 85-6.
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- 5 Kimmerer, 215.
- 6 Anna L. Tsing, Heather Swanson, Elaine Gan, and Nils Bubandt, *Arts of Living on a Damaged Planet*,

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- 7 Nicole Rose, *The Prisoner's Herbal* (Bristol: Active Distribution, 2019). *The Prisoner's Herbal* is a guidebook for incarcerated people, which advocates for healthcare in prisons and empowerment through herbalism, also seeing plants as friends and allies. Although our circumstances were by no means equivalent to incarcerated folks, feelings of isolation and trauma were prevalent.
 - 8 Richard Mabey, *Weeds: A Cultural History* (London: Profile, 2012), 12.
 - 9 M. Maud Grieve, *A Modern Herbal : the Medicinal, Culinary, Cosmetic, and Economic Properties, Cultivation, and Folklore of Herbs, Grasses, Fungi, Shrubs, and Trees with All Their Modern Scientific Uses* (London: Jonathan Cape, 1974).
 - 10 Government of Ontario, "Weed Control Act," RSO 1990, Chapter W.5. Noxious weed labels are usually reserved for plants that might cause harm, for example significant damage to crops or those that might be dangerous to people, the list changes from time to time but the most current list, update in 2015 includes such plants as poison Ivy (an irritant) and Canada thistle which is damaging to croplands.
 - 11 Ibid., 10 (1) . "A council of an upper-tier or single-tier municipality that has appointed an area weed inspector or a council of a local municipality that has appointed a municipal weed inspector may by by-law designate as a local weed any plant that is not a noxious weed. 2002, c. 17, Sched. F, Table."
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- 26 Brendon M.H. Larson, "The War of the Roses: Demilitarizing Invasion Biology," *Frontiers in Ecology and the Environment* 3.9 (2005), 495-500.
- 27 Seasonal allergic reactions are sometimes mistakenly attributed to goldenrod as they flower at the same time as ragweed which is known to produce this effect.
- 28 Thomas Michael Bach and Brendon M.H Larson, "Speaking About Weeds: Indigenous Elders' Metaphors for Invasive Species and Their Management," *Environmental Values* 26.5 (2017), 561-81.
- 29 Mary S. Geniusz, Wendy M. Geniusz, and Annmarie Geniusz, *Plants Have so Much to Give Us, All We Have to Do Is Ask: Anishinaabe Botanical Teachings* (Minneapolis: University of Minnesota Press, 2015), xiii.

THE BODY OF THE EXTRAMUSICAL



Cavil S. Kentis

1

The question of the extramusical and what it entails in the work of Marc Couroux continues to compel investigation. In the present report, we endeavor to provide an accounting of three relatively proximate moments in his creative life, buttressed by fragmentary writings in which the concept makes an appearance in order to expand its remit well beyond recent musicological attempts we shall not tarry with here.¹ We warn the reader that speculation will perforce enter the discussion, given the present difficulty of verifying any claim with the artist himself,² yet its brunt will be softened by the evidence presented, that we believe to be extremely suggestive. Indeed, the correlations we shall propose between these disparate domains may well open onto new hermeneutic pathways into his practice.

It is a frustrating matter to attempt anything like a succinct overview of Couroux's creative output, given the artist's fondness for aliases³ along with his oft-repeated desire to "defer closure, whenever and wherever possible," a slogan any intrepid archivist would do well to take heed of. Nonetheless, beyond his experimental work as a pianist that we will shortly address, begun while he was a touring purveyor of contemporary classical music, we must mention a succession of "prosthetic works" dedicated to "mood modulation and temporal paradox," notably *Adumbrate 57* (2012), subtitled "infra legible training music for the late capitalist subject"⁴ and *In a Sedimental Mood* (2010), "fractal background music" later released as a double LP set,⁵ along with a significant body of video work, later amusingly contextualized in his "pseudo-fictional" novel *The Television Recuperation Unit* (2024), concerned with "alienating sound and image into provisional arrangements" using fungible arrays of "televisual detritus" as material.⁶ We note that Couroux thought of himself as a "medium through which recombinant procedures operate psychedelically," a condition we find much in evidence in the third "season" of *We Know What You're Looking For* (2019),⁷ a seven-episode series consisting entirely of commercials with alternate soundtracks, recasting the "freeform approach" of the original two seasons (2011, 2013) into "a mimicry of the trial and error aesthetics of machine learning." The becoming-anonymous evidenced in these video works undeniably finds its most concerted, varied expressions in his two

novels. In *xenaudial, a psychoacoustic fugue* (2023), the titular personage is gradually made aware of his function as a relay in a long-extant network of “operatives dedicated to thwarting the control side of music,” while in *The Television Recuperation Unit*, the narrator discovers “my people,” a collective of underground video artists “hacking into the formalisms of network television without desire for recognition, content to function like a disseminated brood of termites.”⁸ This erasure of individuality for the benefit of the swarm we consider eminently relevant to the following discussion of a maddeningly elusive corpus.

The most readily accessible vector of inquiry concerning the extramusical undoubtedly remains associated with the forty-nine recordings Couroux realized between 2018 and 2021, all bearing *the extra_musical* as title, and all still obtainable from his bandcamp site,⁹ their covers are exclusively characterized by the moniker in Futura Bold Condensed (once known as the “Absolut Vodka” font), incrementally rising on a black background through the array of albums until it all but exits the frame on the concluding issue. The twenty-year history of the techniques he employed therein would seem to reify the concept as primarily germane to his recorded musical output. However, another interpretation tethered to his 2017 account of experiences walking in what he called a “Maryanne House,” a strange psychomusical hall of mirrors progressively communicating the “body of the extramusical” to him, offers much to consider. We will examine these two perspectives in detail. A

third trajectory proceeds from recently uncovered notes in which Couroux recounts a visitational event, with which we shall begin.

Pursuant to a fulsome inspection of the downloaded contents of an email account¹⁰ abandoned after Couroux withdrew from public life some fifteen years ago, we discovered two fragmentary documents attached to a message sent to himself dated December 17, 2012, perhaps for purposes of backup, which we believe have not been previously reported. Together, they grossly delineate an experiment that he had been apparently conducting, “listening in-to info feeds coming down the pipe.” Technical details remain scant. Nevertheless, “TCP traffic & torrent feeds” figures prominently at the head of “visitation.docx” (December 16, 2012), so one can safely assume these at least in part represented the “incoming network information” to be “converted thru var MAX objects to MIDI data w/in the ambitus of a piano.” Mention of this procedure might give the informed reader pause. We recall a famously vitriolic screed against artwork informed by data visualization (and sonification) principles Couroux leveled at a survey show held not long before his retreat.

Why **in the 21st f***ing century** still assume the meaning that secretes from one composite, which has material affordances, perceptual shibboleths, will make the trip to a **completely. different. substrate.** with its own resonant capacities, with no accounting whatsoever of the mutations, glitches, dead ends, friends it

met along the way? The transparency fallacy festers like a strep throat that won't quit. Only a bevy of prompts can regenerate the source environment. **You need to be read into it.**¹¹

Yet in “visitation.docx,” Couroux mentions, not without humor, having been “turned on” by the discovery that the “Auto-Tune inventor—a tectonic engineer!¹²—hijacked his own algorithm. By day, acoustically probing the geological undertow for seismic action! By night, glossing over impaired vocals in the recording studio! *The extramusical was never so amusingly transduced. Geotrauma working its way into the pop charts*” (emphasis added). Immediately following this statement is a scattershot “listening log” intended “to note mappings yielding (even vaguely) pianistic tendencies,” offering little of substance except “data pointillism,” “jellyfish brain,” and “Eonta-style”¹³ among other nonplussed (and more or less equivalent) annotations, until the extraordinary final entry in heated prose, from December 11, 2012, that concludes the document as a whole. We reproduce it here.

Switched to torrent. The scatter magnetized, another config snapping into place. Patch OK. Checked dataflow again. A presence, a body playing a piano started to register. It wasn't my body b/c how it could do what it was doing? playing detailed, bursts of stuttering stuff in 5-6 discrete regions. But it felt like

a single body. The mental picture slipped into starting to feel it across my body, which embarrassed me b/c I instantly became aware of my limitations and the precise contours of my physique. The playing body was reaching out, reaching into me. I had fully become the body playing the piano, an impossible body for me, but I was playing everything, I could feel myself doing it. The entire event took probably 30 secs, but felt at least three times that. I was let go, like dropped off, and the feed went back to the usual pointillism. I recognized my body again. I was sitting on the edge of the bed the whole time. Waited another hour just in case, but nothing.

The second document, “pareidol.rtf,” dated December 17, 2012, contains only two paragraphs, the first of which finds Couroux wrestling with his tendency to ascribe what we assume is the selfsame experience to pareidolic hallucination.

Paranoid my conditioning collapsed those random attacks into a configuration my body could take on, claim, own. I forced the issue, brought this body into being by latching too quickly onto approximate patterns and completing the circuit. BUT while it was happening, my feeling was the exact opposite, like something was tuning into me, studying my body. I noticed it first, then it noticed me back.”¹⁴

A somewhat disconnected second paragraph quizzically folds in the concept that interests us presently.

For nonhumans the entirety of sound is extra-musical. Humans extrude music, pareidolize it into existence, as a relief from vast formless tracts of non-music. Schafer, Cage, dead wrong, the world ain't a fucking symphony that needs tuning. Pure pareidolia-speak. Music is an exceptional condition, disproportionately fetishized, which propagates itself by parasiting off humans, as it always has.

The temporary conversion of data into embodied form that Couroux fleetingly encountered appears to have led him to meditate on the nature of music itself, which for him remains partially pathological as other writings forcefully attest,¹⁵ and perhaps accordingly intensified a yearning for nonhuman territories altogether outside of its proscriptions. A different lineage of the extramusical will lead us to further developments in this regard.

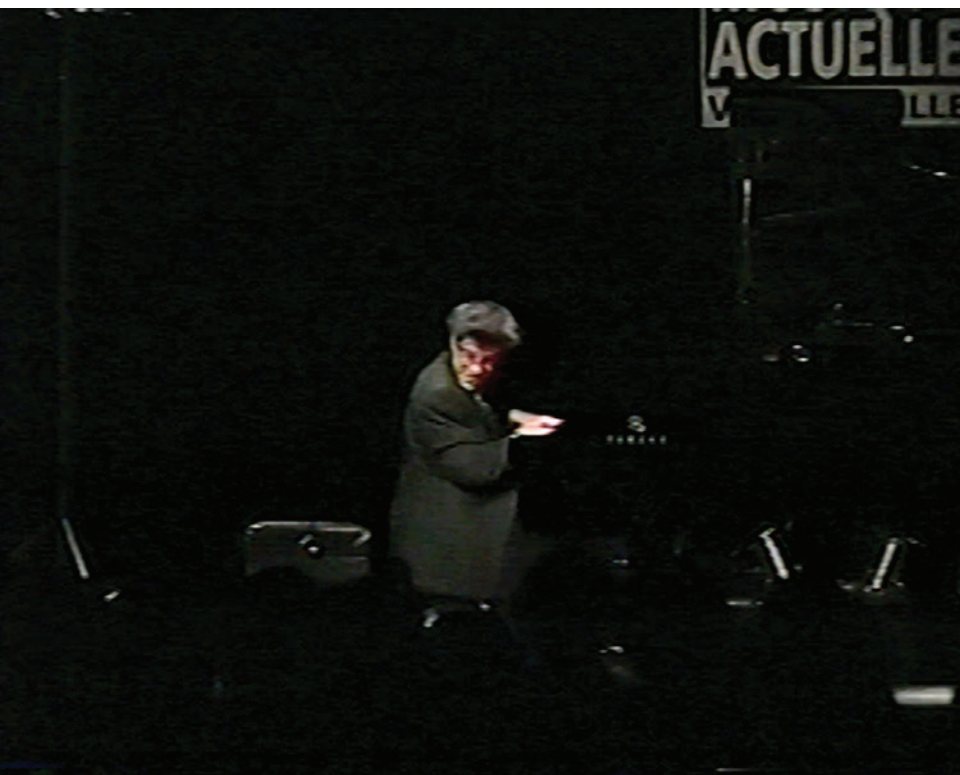
2

Any reader familiar with Couroux's practice would assuredly interpret his coming across an impossible pianistic body in light of his substantial and well-known expansion of the technical aspect of his craft across numerous past works, or protocols, as he eventually termed them. Indeed, we may gainfully

speculate that the intensity of his feeling that an entity was “tuning into” him would be bolstered on recognizing a keyboard arrangement that at least partially evoked his own experimental probings which typically pursue, as we will see, a more texturally salient approach skirting mnemonic stability, achieved via the oversaturation of melodic and harmonic dimensions and the slurring of rhythmic patterning into a more or less densified flux. However, the absence of recording documentation prevents us from pursuing this hypothesis. We simply note that the radical nature of the event nevertheless persists in his mind, despite this overdetermining ambiance.

It was at the *Festival de musique actuelle de Victoriaville* in 2000 that Couroux first exposed his spasmodic, often violent relationship with the piano, in a protocol he cannily titled *le contrepoint académique (sic)*. Years later, he elucidated the motivations behind his break with conventional pianism as so many attempts to defeat the tireless efforts of the “rationalizing ear that recuperates noise as new signal ... the ear as an agent of control, organizing, parsing difference, disciplining the body to follow its edicts.”¹⁶ He writes elsewhere of “never being able to sufficiently rid myself of the cursed ability to refigure whatever inopportune bodily incursion, ceaselessly normalizing accidents. The ear is prodigious. It hears so deeply into the accident and its manifold entailments that continuance is inevitably assured. There’s no failure, only feedback. One for the NLPers!”¹⁷ The goal would therefore be “to break apart ear and body. To reach a stage when the body

is free to fall apart altogether, unconcerned with the ear's perpetual efforts at salvaging and repurposing its every move." Indeed, this controversial work inaugurated a period, potentially still ongoing, in which Couroux, a bonafide virtuoso, trained himself



Marc Couroux, *le contrepoint académique (sic)*, Festival de musique actuelle de Victoriaville, May 19, 2000.

to play otherwise. Nevertheless, despite his abiding obsession with obstructing the “control ear,” other components of the work compel us more immediately.

Historically speaking, the term extramusical (or extra-musical) was first employed by a handful of 19th century concert music critics¹⁸ to denote in order to expel from conscious attention the social, cultural, political framework in which a supposedly abstract piece of music actually concretizes. Purged of its discursive indiscretions and contextual nuisances, the music’s material and formal qualities may commingle with one another friction free, and so much the better, Hanslick and others claimed. Couroux noted that such a “regime of suppression, ludicrous because the evacuation of your situation is fundamentally impossible, still effectively preempts challenges to the political structures which proceed unabated in the frozen music tradition, dependent on the ubermyth of the controlled, integral body on stage.”¹⁹ This recently discovered comment reinforces our long-standing opinion that the extreme bodily antics animating *le contrepont académique (sic)* were intended to force the extramusical back into the concert experience, exacerbating it in a visceral and affectively bracing manner such that it could not be cavalierly ignored.²⁰ That the extramusical here takes a primarily bodily form is not incidental.²¹

Indeed, the titular counterpoint is subjected to corporeal disruptions of such intensity that its progress is occasionally halted altogether. Couroux’s shaking, rocking, seizing body, playing entirely unidiomatically in hunched over, standing, and

crouching positions, pummeling the keyboard as a herd of buffalo or lethargically slithering over it with reptilian elegance, kinetically febrile, reconfiguring itself without warning, is at the very root of the fractalized music which soon came to dominate his



Marc Couroux, *le contrepoint académique (sic)*, Festival de musique actuelle de Victoriaville, May 19, 2000.

pianistic production. Taken on its own, the audio recording of the work evinces a convulsively episodic, insect-like approach to a complexly elaborated counterpoint, at times tentative and recessive, snail-paced in its introduction of new information, at other moments overstuffed and overwhelming, brimming with excessive energy and purpose, the whole pervaded by an apparent carelessness in technical execution, clusters and awkward slips of the finger abounding, all amounting to an affectively unsettling listening experience. The partial video documentation that made its salutary appearance a decade after the event afforded a radically different perspective,²² confirming that the manifold tensions Couroux exerted upon his body gave way periodically, allowing for daydream-like sequences almost completely void of physical effort, such as an extended section near the middle of the work where we find him kneeling on the floor, head drooping, arms hanging. This visual revelation also rendered understandable his abandonment of the public display of his transformation-in-progress, disconcerted as he was by the possible implication “that the spastic, limb twisting that naturally compels the viewer’s eyes to avert²³ had been appropriated from the physical dispositions of disabled people, was even mocking them.”²⁴ However, it is precisely a generalized assumption of ablebodiedness as a default condition that a later series, *the extra_musical*, in our view comes to challenge, fulfilling Couroux’s aspirations to “ditch the training which assumed that the surface of the keyboard had to be

approached in a limited way and couldn't be the site of riskier experimentations involving other kinds of bodies. You know, restricted vs. general economies, etc."²⁵ We must underline that his insistence on *bodies*, pluralized, which finds no counterpart in any



Marc Couroux, *le contrepoint académique (sic)*, Festival de musique actuelle de Victoriaville, May 19, 2000.

of his earlier writings on *contrepont*, appears to have been a retroactive adjustment to the work's initial aims, in light of the "other bodies" he had invoked in the meantime through *the extra_musical*.

The first available evidence of pianistic work since his retirement from concert life in 2009, *the extra_musical*,²⁶ in its original run, comprises a series of 49 albums recorded between 2018 and 2021, each lasting roughly thirty minutes and performed on an electronic piano. Couroux writes that "at first, I was tracking my current relationship with the techniques that had been festering since *contrepont*, the spasms, shakes, paralysis, heterodox fingering, slip offs, glissandi, knuckles, forearms, elbows, etc." Crucially, instead of being recorded as audio files, the performances were "instantly reduced to sequences of MIDI information, and so limited to only three parameters, pitch, duration and intensity, thereby explicitly obliterating evidence of the non-normative physicality and wrenching states (not to mention the heavy breathing) that brought the music into existence in the first place."²⁷ Upon listening to one of the iterations of *the extra_musical* a few months after it had been recorded, Couroux discovered that "the virtuosity I tried so hard to impede rushed back into effect, absent the body memory of how the music was generated. The ear is ableist if it doesn't know any better. It effortlessly reskilled what I painstakingly deskilled, yet it went too far in the other direction, resolving into an alien kind of ableism, an inhuman virtuosity. Say you lay your right forearm parallel to the keys, elbow in the highs, hand & wrist in the mids,

so that you can activate two or three zones at the same time. That set-up could never resolve into one human hand, given a conventional use of the keyboard, which we assume unthinkingly.”²⁸

To put it another way: though the pitches, rhythms, and intensities that constitute *the extra_musical* exist in large part as the secondary effects of bodily, *extramusical* comportments, they are forced to the foreground by the bottleneck effected by the MIDI conversion that grants them the autonomy to promptly re-assemble into paradigmatic formations, fingers activating keys in the usual manner, but with an ingenious torque, an eccentric augmentation, fruit of the bodily excesses at play. The suppression of the singular, idiosyncratic source body through the reduction had paradoxically enriched the music’s potentials for alternate, perhaps even nonhuman embodiments to be projected, hallucinated back into it.²⁹

This transmogrification of Couroux’s pianistic body into indeterminate anatomies evidently animated the social, relational aspect of *the extra_musical*. Each issue carried a dedication to an individual,³⁰ hinted at by initials, “who entered my mind during the performance. I took it as a sign my labors would be addressed to them.” A paradoxical schema characterized the unfolding of the project:

a desire to communicate an extreme intimacy,
a body in the throes of agonistic musicking,
but at the same time, queerly veiled, heard
through a differentiating mask, distancing,

breaking up my body to make way for other inhabitations. *The withdrawal of information, the opacity, is what catalyzes imagination, actually.* I'm giving myself over to the listener's certain misinterpretation of my bodily affordances, which in the end stop mattering.³¹ (emphasis added)

Twelve years after Couroux's retreat from view, several of his close friends began receiving via the postal service, as so many attestations of his continuing existence, index cards on which password-protected web links had been typewritten, each one granting access to a new, individually dedicated *extra_musical*.³² Some of these have since been made public.³³ These recordings are of a markedly sparser ilk than the febrile densities of fifteen years prior, occupied by isolated patches of slowly shifting clusters disturbed in their quiescent procession only by persistent stutters that frequently extend beyond a minute's duration. We believe the psychotropically infused account we shall next encounter authorizes us to speculate that these remarkable stutters may be evidence of neurological damage, perhaps Parkinson's Disease, and no longer the sole province of voluntary reskilling. Another theory, barely developed, appeared on the online experimental film discussion list Frameworks, after one of its subscribers had disclosed he had been the beneficiary of a latter-day *extra_musical*, purporting that the 'post-49' and their altered address were the automated product of "a machine learning routine he (Couroux) set up to learn his idioms, trained on the 'classic 49.' He told

me more than once the training was happening.”³⁴ We cannot pronounce ourselves on this matter, for despite knowing of his interest in machinic simulation, we nevertheless have not encountered evidence elsewhere that its principles had been applied in the context of *the extra_musical*.

3

On April 13, 2017, asleep under the influence of “three or four grams of psilocybin,” Couroux entered a lucid dream state in which he wandered around a capacious Victorian house, retrospectively baptized after Maryanne Amacher, the experimental composer and psychoacoustic investigator who notably manifests at the onset, “in honor of her house-scale installation in a like mansion, St. Paul, 1980.”³⁵ What follows is an abridged account of Couroux’s experience in the “Maryanne House,” pruned for its salient segments from a document drafted the following day.

“The palace of excess leads to the palace of access.” Maryanne, in a red silk bathrobe, blonde mane tamed into a vertically impressive bun, spoke this on the landing of the mansion I had (somehow) already entered. Intense piano music playing, wrought like ctpd acad, prob b/c I’d been thinking about it, but this was a new “version.” ... In the parlor it thinned to a M3 alternation, A-flat/middle C switching every 3-4 seconds, irregular. Right elbow starts jerking, roughly, outwards and back after every attack, sometimes wider,

sometimes narrower. Always intense and painful. A minute (?) into the jerky loop, adjacent notes feathered into hearing range by the reckless gestures slowly crystallize around the two centers, like a picture resolving. A physique, a physical condition focusing. I'm beginning to think the two notes are actually stable landings for a shaking body, now shaking more than before. This "body" could not exit the loop. I knew this. ... The music wasn't playing in any of the rooms per se. It was playing in my head and changing from room to room, the same music making itself perceptible to me differently, not (only) by altering its surface. ... Upstairs, a sunroom, instant densification: grey saturated harmony, nonmelodic, statistically sorted tectonic plates of data, nothing to make a memory. Instantly compelled to crouch, rock on my heels. A different body twisting mine. Sporadically, lone notes within the mass are struck awkwardly. I'm striking them. Trunk careens off center each time, left or right, mostly left, twitching while lurching, producing more collateral haloing each attack. I try to hear the contours of the shadowing mutate over time. I know (?) that's how to get into this room's body. The more I could hear, the more subtle the gyrations became, decomposed into finer motions, like I was tuning them. ... *The body of the extramusical was coming back in, breaking through, trying to communicate.* Humans once had that sense,

a kinesthetic, empathetic sensitivity to other bodies, but an overreliance on recording technology wiped it out. The room told me all this. Listening has been an art of forgetting bodies. The point of this house was to return them to consciousness. ... Sitting room (across the hall), machinic stuttering. Fever drones charged with teeming activity like a dubby echo chamber. Arms shaking fast, wide range. This body is not wasting time, or I'm less resistant, I know the purpose of these rooms now. It sounds like an echo, but it's a massive tremor, convulsing my whole body, forcing me to my knees. I knew I couldn't play what I was hearing, the music was too frenetically overwhelming. But I was still playing it anyway. I could hear into its detail, which specified my spastic posture. A fierce wave of feeling flared up as I was reaching the body forming out of the pitches and rhythms. *The body reaching into me.* ... Two musics in one, two dimensions, one compatible with trackable surfaces and conventional logics (exoteric), the other, the one that could be accessed in this house, a variegated repertoire of unorthodox gestures and their entangled affects (esoteric), which generates the surface dimension in the first place. The house wanted me to know this, especially *that there are leakages between the two dimensions*. If I listened into the abstract surfaces deeply enough, witnessed their movement patterns and drift over time, I could jumpstart this

ancient sense and summon the body behind the music, like our ancestors had been capable of. *A suppressed body could still manage to smuggle itself back into consciousness*” (emphasis added).³⁶

In short, Couroux’s experience in the Maryanne House afforded him the unprecedented opportunity to recover what he considered a lost sense, a bodily listening, an empathetic “reaching” to grasp dimensions of a musical experience severely truncated by the recorded medium, which he would endeavor to truncate even further in *the extra_musical* series commenced a year later.³⁷ We accordingly posit that the hallucinatory experience of 2017 may have been the main contributing influence on the public restarting of his pianistic experimentation, now notably shorn of its visible manifestations. Moreover, while Couroux effectively becomes a medium in the house for other, not necessarily human, bodies to express themselves, he reverses the polarity of donation in *the extra_musical* so as to convert his dedicated listeners into decoders of his own body’s confounding expressions. We also observe that his characterization of the sunroom’s music as “statistically sorted tectonic plates of data” eminently invokes the pianistic modalities he had long been cultivating, while also germane to the data visitation of 2012, another instance of the extramusical “breaking through,” with which we began this survey.

It is difficult to establish with any precision the mechanisms by which Couroux’s brain might have been transformed by the psilocybin so as to permit

such a vivid, highly detailed experience, though we can nonetheless aver that the insula in particular should be further probed as a locus, given its key contribution, in relation with motor and cognitive systems, to engendering self-awareness, fleshing out interpersonal and subjective emotional experience, and, most saliently for our purposes, processing empathy and conceptualizing body representation. We believe it important to stress that even if Couroux's prior bodily transformations and technical innovations had functioned as attractors for the data visitation³⁸ and the dream alike, in both cases the physical demands of the music imposed on him exceeded his pianistic abilities. We might additionally affirm that the empathetic disposition experienced in the house, in its reflection of his bodily boundaries and affordances back to himself, as had also occurred in the summary visitation,³⁹ rendered Couroux self-conscious to such an extent that he redoubled his efforts to dissimulate his singular embodiment in the recorded missives of *the extra_musical*.

We want to insist on the "smuggling" of suppressed bodies into consciousness that Couroux provocatively raises at the close of his account, and suggest that *the extra_musical* may have been (and continue to be) a suitable forum for essaying the technical means by which such a transaction might take place. It is rather like the manner in which the subtle manipulation of moiré patterns spirits colors from black and white television screens. A material, say the precise disposition of a performing body, which exceeds, cannot be captured by the technical capacities of a given system, say the MIDI format,

is nevertheless reintroduced within it. Indeed, the transduction⁴⁰ of bodily gesture into musical expression effected by *the extra_musical* constitutes, we suggest, one possible vector of “leakage” between the “two musics,” exoteric and esoteric, such as were at play in the Maryanne House. Here we refer the reader to the Aristotelian concept of *aphairesis*, which pertains to subtraction,⁴¹ and comprises two components, one concerning what is removed from a totality (here, artifacts proper to the original embodied performance), the other concerning what remains (here, the musical residua of these complex embodiments after their MIDI ablations). We might imagine Couroux, primed by the dream’s cross-contamination of the two domains in each room, establishing a Rosetta Stone of correspondences between bodily contortions and the musical remainders which survive the translation and most evocatively (if not accurately) render their somatic peculiarities. Finally, and importantly, we assert that this very act of smuggling back into perceptibility evidence of idiosyncratic bodily activity may indeed have been intended to “jumpstart this ancient sense” in his designated listeners, as if by contagion.

To reiterate, much of the preceding remains in the speculative realm, given that Couroux himself never establishes any chain of influence between the visitation, the dream house and *the extra_musical* anywhere in his writings, to the best of our knowledge. Yet we nonetheless believe that the three perspectives on the concept of the extramusical we have elucidated here attest to Couroux’s yearning to escape from the

confines of his embodied situation and extend himself towards other bodies. Accordingly, the drastic extramusicalization of a body's specificities, cast out of musical range via the MIDI interface (and no longer simply through recording technology), offers him both the means to diffuse accurate representations of his own, perhaps now ailing body, while opening channels through which alternate, equally specific bodies might insinuate themselves into tangible access.

And so, we leave the reader with a compelling conceptual constellation gleaned from discrete instances we have only incipiently scrutinized. Further research is necessarily mandated. Moreover, we remain essentially oblivious as to whether Couroux's pursuit of bodily transmogrification has continued apace, and if so, at what stage it might currently reside, bracketing the recent *extra_musical*-like appearances we have mentioned, the precise nature of which remains somewhat nebulous. Despite these ambiguities, we permit ourselves a concluding conjecture in our capacity as amateur naturalist, noting that Couroux is a child of a cicada year, born during an infestation robust enough to rattle Bob Dylan,⁴² and prone to extended periods of burrowing not unlike the 17-year-cycle insect. Along with the reemergence of the latest iteration of Brood X next summer, might we also reap an opportunity to clarify some of these matters with him in person?

Cavil S. Kentis, November 2037

NOTES

- 1 The relatively abrupt glut of interest in Couroux's pianistic work has led to such exemplars as Henry Foghue, "The extra_musical and New Complexity: parallels and prospects," *Contemporary Music Review* 53.4 (2034), 241-259 and Anin Uouzo, "From *contrepont académique (sic)* to the extra_musical, a trajectory," *Music Perception* 52.5 (2035), 457-475. For a somewhat more enlightened analysis, honing in on his textural proclivities, see Nelson Coolicut, "... like so much Lake Ontario mud': The organic worlds of Marc Couroux's the extra_musical," *Theory, Culture & Society* 52.2 (2035), 52-70.
- 2 Not that this approach would have necessarily been productive. Indeed, Couroux appears to have made a habit of throwing inquisitive researchers off his track. The reader may recall one particular journalist's attempt to ascertain the veracity of certain claims made in *The Television Recuperation Unit*. While confirming every single theory about the titular organization the interviewer posed, Couroux repeatedly contradicted himself, further deferring definite conclusions. See Ed LaRettes, "Is the Television Recuperation Unit Real? (and Consecutive Does-It-Matters)," in *Millennium Film Journal* 80 (2024), 7-25.
- 3 Xenopraxis, Mauro Croxuc, Algorithmic Moods, inc., among others.
- 4 Marc Couroux, "Towards Indisposition," in *The Idea of the Avant Garde - And What It Means Today*, Marc James Léger, ed. (Manchester: Manchester University Press, 2014), 255-262.
- 5 *Halocline Trance*, 2023.

- 6 The reader may be familiar with some of these well-traveled works—e.g. *The Following*, *Strange Homecoming*, *Executive Summary*—from their appearance on Couroux’s long-dormant Vimeo site. See <https://vimeo.com/user9854186>
- 7 Formerly housed on Vimeo, the work was withdrawn shortly before his retreat, though it can still be accessed through select torrent outlets.
- 8 LaRettes, 17.
- 9 See <http://xenaudio.bandcamp.com/music>
- 10 As is well known, millions of email accounts were unencrypted for 36 hours during the Google Crash of 2028, which enabled entire gmail histories to be downloaded, resulting in trillions of dollars in damages (and the attendant bankruptcy of the titular company), while also furnishing intrepid archivists with fresh sources, among them Couroux’s account that went dormant in late 2022.
- 11 Couroux’s critique was published on the Cybernetic Hypothesis blog: http://cyberhypo.net/dataviz_couroux.htm. See also the exhibition monograph it refers to: Carol Sindin & Ahmed Fakir Al-Weg, eds., *Seeing is Believing: Data Visualization in Art through the Ages* (New York: Museum of Modern Art, 2024).
- 12 This reference is to Andy Hildebrand. See Sasha Frere-Jones, “The Gerbil’s Revenge,” *The New Yorker*, June 9/16, 2008.
- 13 Referring to the stochastically derived *Eonta* (1964) by Iannis Xenakis, for piano and brass, a formidably challenging work in which the entire keyboard is saturated in pointillistic attacks for the first few minutes. Couroux performed it in 2005.

- 14 “Witnesses and researchers often report the strange feeling that once you become aware that there is a phenomenon, it becomes aware of you.” See D.W. Pasulka, *American Cosmic* (New York: Oxford University Press, 2019), 93.
- 15 Caveat lector: The present author wrote a critical postlude to this, one of Couroux’s last substantial academic contributions. Marc Couroux, “The Ear,” in Holger Schulze, ed., *The Bloomsbury Companion to the Anthropology of Sound* (London & New York: Bloomsbury Academic, 2020), 463-484.
- 16 Couroux, “The Ear,” 465.
- 17 Marc Couroux, email to Didier Morelli, November 19, 2022. NLP refers to Neuro-Linguistic Programming.
- 18 The origins of the extramusical concept can be further explored via Hanslick’s writings. See Eduard Hanslick, *On the Musically Beautiful*, Lee Rothfarb and Christoph Landerer, trans. (New York: Oxford University Press, 2018).
- 19 Marc Couroux, email to Cole James, October 9, 2022.
- 20 We must remember that Couroux, in his guise as concert pianist in the late 1990s and early 2000s, had been relentlessly critiquing the classical concert ritual and calling for new forms through which contemporary music could be delivered to the listener, which included methods borrowed from theatrical and performance art domains, alternate means by which performers and listeners could interact, and so forth.
- 21 Contrast this position with the “Introductory note,” written ten years after *le contrepoint académique (sic)*, in which Couroux insists mainly

- on formal and structural elements destined to psychologically unmoor the listener, curiously hinting only once at the “undisciplined (willfully or not), shaky body” that effectively catalyzes the music into being. See Marc Couroux, “Introductory note to *le contrepoint académique (sic)*,” *Le Merle* 0.0 (2011), 49-52.
- 22 An excerpt from the bootlegged performance video (May 19, 2000) can be viewed at <https://vimeo.com/142216720>
 - 23 “Others had to look away, close their eyes, to engage in “reduced listening” (cf. Pierre Schaeffer) to minimize extramusical contamination.” Couroux, “Introductory Note,” 51.
 - 24 Marc Couroux, email to Cole James.
 - 25 Marc Couroux, email to Lendl Barcelos, December 16, 2022.
 - 26 Spelling the concept most often in the conventional manner, Couroux inserts the underscore in this context for reasons unknown, though we suggest it might be interpreted as “what exerts influence from below” (underscores), reminding the listener of the originary body/bodies at the music’s source.
 - 27 Marc Couroux, email to Xuan Ye, December 2, 2022.
 - 28 Ibid.
 - 29 Cultural theorist Steven Connor’s notion of the “vocalic body” resonates with the premises of *the extra_musical*: “a surrogate or secondary body, a projection of a new way of having or being a body, formed and sustained out of the autonomous operations of the voice” manifests as such because a “disembodied voice must be habited in a

- plausible body.” See Steven Connor, *Dumbstruck: A Cultural History of Ventriloquism* (Oxford: Oxford University Press, 2000), 35.
- 30 Excepting *the extra_musical* 46, “For all frontline workers” (recorded during the first wave of the COVID-19 pandemic) and *the extra_musical* 48, “For BLM,” presumably initializing Black Lives Matter.
 - 31 Marc Couroux, email to Amanda Boetzkes, June 13, 2022.
 - 32 Dorothée Legrand’s writing on David Nebreda, whose photographs of his anorexic body constitute his sole social activity, provides potential insight into Couroux’s hermetic motivations in *the extra_musical*. “He is rather moulding himself by the very act of picturing himself. The ‘photographic double’ and the act of giving birth to it is not ‘just’ a crucially important aspect of himself; it is himself as he lives himself. In exposing his photographs, he is thus giving *himself* to the gaze of others, and to their (mis) interpretation.” See Dorothée Legrand, “Ex-Nihilo: Forming a Body Out of Nothing,” in Robin Mackay & Reza Negarestani, ed., *Collapse: Philosophical Research and Development, Volume VII* (Falmouth: Urbanomic, 2011), 556.
 - 33 See infranationale.net/extra_musical2034_1.way (sent to Lendl Barcelos) and infranationale.net/extra_musical2034_2.way (sent to Katrina Burch).
 - 34 Lance Brodell, “re: MC extramusical,” Email, June 3, 2023. Brodell has repeatedly declined to share his *extra_musical*, offering an explanation that echoes Couroux’s emotionally invested disposition in the matter: “way too personal, the intenseness of the dedication and what it provoked

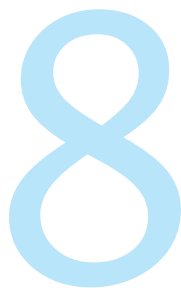
in me is so overwhelming that it would feel like a violation to put it out there.” (Email to the author, November 9, 2036.)

- 35 Couroux is referring to Amacher’s *Music for Sound-Joined Rooms*, a project that occupied the entire Victorian mansion of conductor Dennis Russell Davies during the 1980 New Music America Festival in Minneapolis-St. Paul.
- 36 From maryannehouse.docx, a file attachment Couroux emailed to himself on April 14, 2017.
- 37 We note however that his experience in the Maryanne House, whose rooms differentially modulate his perceptions and bodily affordances, remains quite distinct from a typical experience of one of Amacher’s actual house-installations, in which musical sources are projected through architectural structures, occasioning a different set of potential embodiments.
- 38 “It is bodies that enable a particular way of seeing: who you are and whom you perceive as prey and predator depends on the kind of body you have.” See Nils Bubandt and Rane Willerslev, “The Dark Side of Empathy: Mimesis, Deception, and the Magic of Alterity,” *Comparative Studies in Society and History* 57.1 (2015), 5-34.
- 39 “Empathy involves ... a double movement of the imagination: a stepping into and a stepping back from the perspective of the other, at once an identification with an other and a determined insistence on the other’s alterity.” Ibid.
- 40 Transduction may well be a useful concept to pursue with Couroux’s work. (Indeed, he employs it in visitation.docx, as we have seen.) “(T)o think transductively is to mediate between different orders, to place heterogeneous realities in contact,

and to become something different.” And:
 “Transduction is a process whereby a disparity
 or difference is topologically or temporally
 restructured across some interface.” See Adrian
 Mackenzie, *Transductions: Bodies and Machines
 at Speed* (London: Continuum, 2002).

41 Legrand, 547.

42 The singer experienced the full brunt of the
 Brood X emergence on the East Coast on June
 9, 1970, two days after Couroux was born. See
 Andy Greene, “Flashback: Bob Dylan Recalls
 1970 Cicada Swarm at Princeton in ‘Day of the
 Locusts,’” *Rolling Stone*, June 10, 2021 (online).
[https://www.rollingstone.com/music/music-
 news/bob-dylan-day-of-the-locusts-cicadas-
 princeton-1181897](https://www.rollingstone.com/music/music-news/bob-dylan-day-of-the-locusts-cicadas-princeton-1181897)



ISSTAHPIKSSI (GHOST)

Movement in the Surround

Jessica Jacobson-Konefall

Kainai artist Terrance Houle's film *Isstahpikssi* (*ghost*) tells the story of a medicine man whose image was captured by a colonial photographer. The film provokes a series of meditations that redraw the boundaries between the living and the dead—past, present and future. The work is overlaid by an oral narrative in Niitsitapi and Saulteaux—Houle's maternal and paternal tongues—serving as an intervention against hegemonic modes of settler representation. As the film unfolds, language, voice and image give voice, power and medicine to an Indigenous lifeworld held in an agonistic relationship with colonialism.

Houle emphasizes the image of the medicine man alongside the storyteller's voice to elaborate the story through a sequence of images that produce an intergenerational photographic archive. Houle uses this archive to mark the operations of a camera in

two ways. On the one hand, the camera is a metaphor for Western Man's enclosures, abstractions, and dominance over the medicine man. On the other hand, self-determined and relational images, voice, language and story provide both the grammar and the content of the work. *Isstahpikssi (ghost)* performs a dialogue of light and dark in the thematic conjuring of the Ghost Dance, an Indigenous social movement embodied in the work as a dance *within an archive of photography*. In Houle's work, defiance of the logic of Western Man takes place by way of energy—electrical, material, and spiritual; his low-resolution historical photographs reflexively negotiate the (non) boundaries of the dead and living, and the end of the world of the Human. *Isstahpikssi (ghost)* posits "otherwise genres of the human," in Saulteaux terms of "all my relations," as a world of time immemorial, brilliance, and secure attachment for the reclaiming. This modelling restores lifeways, languages, energetic relations, and gestures of motion from noncolonial worlds, towards Houle's own manifest, self-determined presence and shared audiovisual vision of Indigenous futurity.

As the artist of the work, Houle controls what appears on screen while remaining himself unseen; however, he also shifts the conventional salience of working "behind the camera." Rather than occupying a position of invulnerable control in relation to what he captures, Houle exerts himself towards a framing of his family and nations, presenting his history as fragmented but nevertheless as renewed through his performance acts. In this sense, the work resounds with Indigenous-led collective movements, such as

the Ghost Dance, that resist the totalizing effects of genocide. Houle's practice embodies Indigenous and Black theories of liveliness between the living and dead, modelling a logic of collective emancipation. In



Terrance Houle, *Isstahpikssi (ghost) part I*, film still, 2013. Image courtesy of the artist.

these ways *Isstahpikssi* (*ghost*) figures an aporetic moment in which hegemonic time and space is suspended.

In his memoir *Afropessimism*, Frank Wilderson writes that the antagonist of the Black is the Human, the latter a hegemony willingly maintained by those who see a constant risk, a potential vulnerability that requires restoring Western Man to the position of invulnerable master subject.¹ Wilderson calls this framing (between those for whom the Human is irrevocably barred and those for whom it is a fantasy of achievement) a comparison, a constitutive relation, between the dead and the living. Black feminist theorists Hortense Spillers and Sylvia Wynter reverse this binary of living and dead in order to give voice to “otherwise genres of the human from that of Western Man,” genres that articulate Blackness—and other forms of life—as all that exceeds or is abjected from the world of Western Man: autonomous life itself, and “all its relations.”² Houle’s work likewise insists on the importance of relationships that hinge the living with the dead through the encounter with the image.

GHOST DANCE

A heartbeat is the central aspect of *Isstahpikssi* (*ghost*)’s soundscape. The oral sonic narrative connects the still, black and white archival images that flash on and off the screen. English subtitles support the oral narrative. The score, by Houle and Dan Wilson, was meant to sound “synthy” and “spacey,” for a “First Nations sci-fi” film including

drumming, vocals, synths, and image.³ While *Isstahpikssi (ghost)* is inspired by Chris Marker's *La Jetée*—in a clear reference to dance, themes of time, memory and perception, and the “perceived illusion of cinematic movement” or mechanical reproduction of images, Houle's Kainai story provides an original take on these matters.

Isstahpikssi (ghost) is a story of technology and time travel but from an Indigenous perspective, where a relationship to language, story, generations and land is iterated through energetic and audiovisual means. The work summon spirits, and with them, a lifeworld. What echoes is the Ghost Dance, an Indigenous resistance movement that emerged out of the Lakota and Saukteaux Sun Dance, banned in 1883 as part of the effort to “civilize” the Indian, but which continued surreptitiously. Due to the government ban, Houle's people, the Saukteaux, took the Sun Dance underground, dancing at night in basements or secretive places to avoid capture by Indian agents. Many traditions—Inuit throat singing, pow wow songs, group experiences of singing or dancing in unison, and call and response formats—are lively co-breathing templates that calm, regulate, and produce experiences of relational secure attachment in the human nervous system. Embodied, cooperative, repetitive and reparative, these rituals implicate groups in a shared aesthetic experience.

While the Ghost Dance draws on these ancient practices, it also draws forth a sense of a fragmenting lifeworld. The vulnerability of being at the mercy of colonial forces is uttered, somatically and aesthetically

to a new world of meaning experienced by the viewer. Houle's work speaks to the traumatic interruption of the Sun Dance and its collective attachments circumscribed in the world of settlers. Presenting heartbeat and referencing the dance in ways that highlight the fragmentation of that lifeworld through the production of profound temporal and spatial ambiguity, *Isstahpikssi (ghost)* evokes the discomfort that marks the absent presence of secure attachment, named in the Anishinaabe phrase "all my relations," *for all of us*. The settler world underpinned by scarcity and enclosure, desperation, hierarchy, agonism, competition, of relentless compulsion, and thin versions of reality and presence, is conveyed sensorily in *Isstahpikssi (ghost)* as the work brings anxiety, loss, and attachment insecurity to the level of perceptibility. It points to the ongoing dynamics of attachment to land and lifeworld that Indigenous peoples retain against capitalist totalization.

Isstahpikssi (ghost) is connected to Houle's ongoing *Ghost Days* project, which he refers to as "an experimental art adventure with film/video, performance, photo, and music to conjure spirits and ghosts as audience and collaborators with the living."⁴ Discussing *Ghost Days* in an interview for *The Globe and Mail*, Houle offers these responses to the interviewer's questions:

Is it a seance of sorts?

Well, I actually ended up working with a psychic last year. He would do psychic drawings, where he would draw higher selves

and past lives. We started doing experiments in a garage, where I would play music for three hours, conjuring the music of people like Jason Molina and Hank Williams. We delved into a lot of turn-of-the-century ideas of seances.

Is the performance similar to a religious experience?

I don't want to equate it to a church. I want to equate it to a lodge, where the audience is participating in it as much as we are. We want them to feed off the energy that's coming into the room.

What kind of state do you work yourself into?

It's a healing state, where we're all together. I've found that people get emotional when they watch this. They feel a sort of reconciliation. I'm trying to raise colonial and Indigenous spirits, as well as non-colonial and non-Indigenous spirits, in an attempt to speak to them. That's what Indigenous people do every day.⁵

The notion of a firm boundary between the living and the dead is overcome in Houle's work, as in the work of many Indigenous theorists. The Zapatistas, for example, call upon their dead to lead them to the path: "'for everyone, everything' say our dead. Until this is so there will be nothing for us."⁶

Isstahpikssi (*ghost*) references the history of colonial images and their audiovisual recording technologies connected to the visibility of the Ghost Dance. A quote from the historical archive describes the origins of the movement:

On January 1, 1889, Jack Wilson (or Wovoka), a young Paiute man, *had a vision during an eclipse of the sun*. ... Revealed to Wilson was a place where his ancestors were once again engaged in their favourite pastimes, where wild game and abundant food were restored to the lands. ... He interpreted the vision as the coming of a new age, one where Native and non-Native people would (finally) live in peace. This was the birth of the Ghost Dance. ... It was, quite possibly, the first pan-Indian movement in the United States. (my emphasis)⁷

While settlers repressed the Ghost Dance movement in the infamous massacre at Wounded Knee, where woman and children were frozen in the ground and photographed, the Ghost Dance provides an oppositional aesthetic grounded in ancient dynamics of the senses. Houle's film persists against the figurative capture of Western Man by refusing sensorial enclosure. The photographic component thus becomes a dialectical site of resistance against genocide.

ECLIPSE

The vision of an eclipse of the sun synchronizes with the movement of a camera shutter, as the story of the medicine man, Houle's direct ancestor, unfolds. In this way, the medicine man is metonymically captured and reified by the photographic capture. Next, Houle's family photographic archive flows, in rhythm to music, and overlaid by narration. A woman elder's voice in Niitsitapi speaks; it is Houle's mother, who recalls, "This is the story of a great leader and traveler. This story takes place a long time ago when the world began to change [and tells of a] Medicine man with great power and wisdom." The narration is offered in darkness, with guitar overlay, and recounts how the medicine man's power was so effective, he could walk through an enemy's camp and steal horses without awakening any of his adversaries. He had control over when he "appeared," not only how he appeared but whether or not he was even seen. Houle notes:

My mother (Blackfoot) tells the story of a Saulteaux medicine man's life achievement then his capture, articulating the relationship to her husband's family and medicine. My Father's voice embodies his ancestor in his Saulteaux language, manifesting him through his language (giving voice). This is rooted as a Sci-Fi story based on the true story of my ancestor in the photograph, who was on my

father's Saulteaux side. It is in part a story of the medicine man's breach cloth told through Blackfoot (Niitsitapi).



Terrance Houle, *Isstahpikssi (ghost) part I*,
film still, 2013. Image courtesy of the artist.

There is a part to this film that is completely oral in that one must learn three languages, to know the complete story: that of visual art, Niitsitapi and Saulteaux. My mother is telling a Saulteaux man's story but in Blackfoot, while my father plays his ancestor. I stopped or broke up the English subtitles as I wanted to take away the control of the narrative from my audience and force them to listen...especially to the languages.⁸

Following the telling of the story, the medicine man asks "are you the man who has asked for me? Is that the object to take my shadow to print?" With the capture of the camera shutter, the image is taken, and from that moment forward the archive of photographs of Houle's community flashes by. This shuffle of rapidly shifting images in the trailer for the work move so fast as to become shimmering, moving light appears on the screen rather than discrete forms. I hear fragments of the medicine man's voice, indicating he can't find where he is, where his spirit is. In the end he says, "I am a Medicine Man, I am here, waiting!"

MATERIAL ANIMACY

A predominant theme in the protagonist's story is the permeable barriers between the living and the dead. A second key theme is that of entrapment: how the image encloses or disempowers its subject through containment, so that containment is both material and representational.⁹ Early colonial photographers

like the notorious Edward S. Curtis photographed Indigenous peoples with the rationale of salvage anthropology, “to preserve the image of the dying or disappearing native...” , and this well-known orientation has compelled sustained resistance, reframing, and re-inhabiting by Indigenous artists.¹⁰ Cultural theorist, Dylan Robinson, refers to the entrapment of kin in colonial museums and archival collections when he writes “these systems of display and storage ... maintain the separation of kinship at the heart of settler colonialism.”¹¹ While Robinson connects museums to the topic of prison abolition , he emphasizes the forms of life that persist against their containment.

Isstahpikssi (ghost) thematizes the liveliness of spirit and persistence of kin in the material animacy of electronic arts within capitalist infrastructures. Indigenous artists like Houle have occupied the colonial logics of various aesthetic disciplines, and in doing so, integrated themselves in the ongoing life of Turtle Island in an autonomous, lively way. The technology of film is associated with the modernity of “Western Man,” one whose gaze confirms the “mastery” of the Human subject as naturalized and hierarchical paradigm, looking at property gained by coercion and violence. At the same time, film is “made of” the land, of ancestors, of kin from time immemorial. What would it mean to heal “the separation of kinship at the heart of settler colonialism,” as Robinson writes?

In *Isstahpikssi (ghost)*, Houle draws on his own material positionality to reference and embody a Kainai creation story. The story, wherein from the

darkness comes light, charts the relationship between energy, life, and light as central and co-elaborated. This emphasis also resonates with the origin story of the Ghost Dance, which appears as a prophetic vision



Terrance Houle, *Isstahpikssi (ghost) part I*, film still, 2013. Image courtesy of the artist.

of an eclipse of the sun. In the story, Kainai came from the Above People (Spomi'tapiiks), with emphasis on the role of celestial light in life on Earth, wherein light is part of the Kainai family. This Kainai story holds that Creator specifically names Earth (Ksahkomitapi) to be the mother of all that he created, and:

all his creation would live off her. The Sun (Natosi) was created, and he was told that he would be the one to give light and warmth to everything. The Creator then told Natosi's wife, the Moon (Kokimmikisoom) that, along with all their children, the stars in the sky (Kakatosiiks), they would be the ones to give light at night.¹²

The connection of celestial light to life and nurturance secures what Winona LaDuke calls "continuous rebirth" at the basis of the Kainai people.¹³ In Jack Wilson's prophetic vision of the Ghost Dance, the eclipse of the sun also infers the movement of a camera aperture, as *Isstahpikssi (ghost)*'s use of the photographic archive from this territory suggests. When the photograph of the medicine man is taken in Houle's narrative, it as though a new beginning, a (re)creation story, is echoed and embodied. The use of lo-fi archival photographs, with their visual irregularities, creates a shimmer on the surface of the image which foregrounds the thematics of light and dark speaking to the perceptual dynamism of dance, while the movement of electrons speaks to the liveliness of ancestors and relations.

RE-CREATION

Houle's use of his family's photographic archive suggests the power of each generation to persist as Indigenous peoples following the originary "eclipse." He pivots the capture of the photograph to be a site of the sun's re-emergence : a re-creation story. While in the oral story, the medicine man may seem to have lost his power at the moment of photographic capture, by the logic of the (re)creation story and the Sun Dance prophecy the viewer expects his reappearance. The "blink of an eye" temporal dimension of capture speaks to genocidal colonialism, the destructive speed of which belies what survivance may offer over a longer duration.

In the interplay of light and dark, absence and presence, life and death that the work articulates, it is precisely when the medicine man *goes unseen* that the film inaugurates, and he achieves, the full potency of his medicine. As the female Elder narrates, the medicine man's ability to sneak by, go unseen or unnoticed as he steals horses, is evidence of his power. The Elder's story underscores that it is not in how he appears —*because to his antagonists, he doesn't appear*. But what he does, the context in which he does it, and the relations with which he acts, are elements that embody his medicine. The connotation of stealing horses suggests a kind of presence or power that the animals trust him, and horses suggest freedom without restraint, travel, movement and desire. The fact that his "last" or "final" story in *Isstahpikssi (ghost)* is his "capture" by the white man's picture box

activates the agonism of the relationships of power so often theorized as staged by the camera. Where once, in time of conflict, the medicine man went unseen, his power so great that he went uncaptured with agency,



Terrance Houle, *Isstahpikssi (ghost) part I*,
film still, 2013. Image courtesy of the artist.

“and no one awoke!,” now he is captured, yinnaki, having been “seen” as or made into a fixed image. But Houle activates his medicine, using the film to reveal his power to disappear and redistribute his presence as the play of light and energy on the surface of the image.

Before the moment of capture the medicine man says, “I am interested in how it takes my picture and stamps it.” Once captured, the sound of a heartbeat registers, and the woman elder comments that when the white man’s camera box “flashes” the medicine man felt himself move with such force he had never felt before. Now “aimless” the man speaks in a fragmented voice from an unseen place. The medicine man’s speech suggests he doesn’t know where he is or why he is there, whether he is a spirit, whether he is alive or dead. In the film, this kind of disorientation overlays images of Indigenous families who appear to be variously articulated with the visual signifiers of colonial change while the people in each image clearly exude many forms of self-determination.

At the time of the medicine man’s capture, a drumbeat gets louder as the photograph is taken. The Elder describes, “it is as if it was an eagle or a star, and he is lifted by some unknown spirit.” She narrates: “The medicine man could see the air around him, as colourful, like the spirits had taken him and he could see the world. He hit the ground, and everything went dark. Where am I? Why am I here? he asks.”

Medicine man, descended from the stars, like those in the Kainai creation story who dwell there in power, has fallen or been lowered from the sky

again: a re-creation story. In the tradition of the creation stories, he is associated with the power bestowed from above as an animating or lifegiving force, an energy that is not restricted by structures of dominance characterizing the Human world, world capitalist economy and libidinal investment in white body supremacy. He is, rather, imbued with the power to make a place to live, and share in, with the help of others.

While dynamics of agency and assimilation appear in these images, they are animated by the opening of perception to the “constitutive potentiality of a totality that is structured in dominance [towards freedom].”¹⁴ Even as the Indigenous families ride in carriages, dress in western suits, pose in conventional portrait style, the presence of their relations, attachments, millennial histories on the land are signified in gesture, stance, smile, love: as presences and absences that can be repaired, regenerated, that speak to relations from time immemorial that will never be extinguished, that speak to, call forward the full humanity of all who encounter them. That they are repositioned by the creation story means they are poised to reclaim what is theirs: each one a life “designed to generate life.”¹⁵

MEDIUM AS MEDICINE

The medicine man’s words of disorientation overlay the images of families from the photographic archive. This works to disassemble the power of capture at the colonial basis of the medium. His great medicine

is indicated *by the fact that he is invisible to his antagonists in situations of conflict*, and he still is. His voice as medicine power carried by his descendants spreads through the animacy of light and image, the



Terrance Houle, *Isstahpikssi (ghost) part I*, film still, 2013. Image courtesy of the artist.

audiovisual—what is unseen in it, of it, by settler hegemony relays medicinal power: *the power of the waters, the storied routes of electrical infrastructure, the relations that water and its power manifest, as*



Terrance Houle, *Isstahpikssi (ghost) part I*, film still, 2013. Image courtesy of the artist.

heartbeat, the relationship between sovereign nations and spiritual presence that this enacts despite and through colonial infrastructures. The medicine man, with or becoming the eagle spirit, or a star, falling from the sky, becomes dancing electrons, becomes a source of light that makes a home, coming down from the sky people, hitting the ground in re-creation, in perceptual dance.

Houle's work activates a Kainai world, agents, and relations through his invocation of the Ghost Dance and creation story. Across the sight of the medicine man and his capture by the camera shutter, with the elder's words and the family histories, and with the electronic media, Isstahpikssi (ghost) creates an aporetic moment imbued with fragmentation but through its very play of the medicine man's appearance and disappearance across media, language and image, it orients us to the medicine of Indigenous (re)creation.

NOTES

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- 4 Terrance Houle, "GHOST DAYS: CVD 19 Series," no. 21 (2020). <https://lumaquarterly.com/index.php/issues/volume-six/021-summer/ghostdayscvd19series/#text-2>

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- 11 Dylan Robinson, "Critical Conversations 2021: Dylan Robinson: The Museum's Incarceration Of Indigenous Life," University of Saskatchewan, Arts and Sciences Newsfeed, March 5, 2021. https://artsandscience.usask.ca/news/articles/5971/Critical_Conversations_2021_Dylan_Robinson_The_Museum_s_Inca
- 12 Blackfoot Crossing Historical Park website, "Our Culture." <https://blackfootcrossing.ca/wordpress/our-culture-2/>
- 13 Winona LaDuke, *Our Relations: Struggles for Land and Life* (Cambridge: South End Press, 1994), 41.
- 14 Alexander Weheliye, *Habeas Viscus: Racializing Assemblages, Biopolitics, and Black Feminist Theories of the Human*, (Durham: Duke University Press, 2014), 13.

- 15 Leanne Simpson, *As We Have Always Done*,
(Minneapolis: University of Minnesota Press, 2017), 3.

DREAMS OF IRON

Unearthing Art in the Mine

Sky O'Brien

MINE

In the Pilbara region of Western Australia, way up in the north of the state, mining companies dig up the earth and ship it to China in the thousands of megatons. This is iron ore country, “China’s quarry”—so called because China buys more iron than anyone. The digging and blasting and hauling and shipping goes on and on, a perennial event of restless extraction that has turned the Pilbara’s red earth into a sculpture park of open pit mines, railways, conveyors, crushers, and deep-water ports.

These mines have “lives.” In 2020, the multinational mining company Rio Tinto made news for blasting two sacred Aboriginal rock shelters in Juukan Gorge to expand the life of its Brockman 4 mine. This was legal, business as usual, and a permissible means to an end.¹ But photos taken at

the site of the blast linger in my mind. Some of these images show the Traditional Owners of the land, Puutu Kunti Kurrama people and Pinikura people, standing beside their forebears' pulverized shelters. In a kind of sick irony they wear Rio Tinto uniforms and Rio Tinto hard hats as they observe the rubble around them

The legacy of colonial legislation,² which calls on Aboriginal Australians to participate in the exploitation of their own lands, nevertheless emboldened Liberal politician Warren Entsch—who served as chair of the first inquiry into the Juukan Gorge blast—to economize on this painful participation. “The Traditional Owners of the Pilbara are not opposed to mining,” he writes in his foreword to the report.³ “They see the possibilities that development offers both to themselves and to other Australians.” What they will not participate in, he goes on to say, is development that comes from the “destruction of their ancient culture and heritage.”⁴

In 2005 and 2011, when Rio first told the Puutu Kunti Kurrama and Pinikura peoples about Brockman 4's expansion, the sacred rock shelters were outside of the plan. But as Entsch explains, thanks to Australia's iron-willed legislative frameworks, “Native Title has become another means to destroy Indigenous heritage,” and Rio could quietly converge on Juukan Gorge where \$134 million of high-grade iron held sway. It wasn't until Rio received an email from the Puutu Kunti Kurrama and Pinikura Aboriginal Corporation (PKKPAC) asking permission to visit their own shelters that it broke the news of

an impending blast. By then the site had been drilled and loaded with explosives.⁶ The formality beggared belief.

In a submission to the inquiry, Burchell Hayes, a director at the PKK PAC, voiced the liveliness of his people's sacred land and their enduring connection



The aftermath of the massive explosion at the Juukan Gorge caves. Photo credit: Puutu Kuntj Kurrama and Pinikura Aboriginal Corporation.⁵

to this country. “Juukan Gorge is an anchor of our culture,” he said, “with a number of individual cultural sites that makes it unique, an important place. Each of these,” he continued:

is a museum of heritage featuring thousands of artefacts, including grinding stones, rock seats, blade quarries, flaked stone material and human hair, likely to be from a hair belt that has been genetically matched to our people.

Juukan Gorge also includes the distinctive and sacred rock pool that used to hold water long after the rain had fallen. The shape of a snake’s head entering the ground forms the shape of what used to be a permanent water source. This rock pool is a very spiritual place, which is still visited by the spirits of our people. The Juukan Gorge is known to be a place where the spirits of our relatives who have passed away, even recently, have come to rest.⁷

WOUND

“Once again I should like to start with the wound.” So began the artist Joseph Beuys when he gave a speech in 1985 entitled “Talking About One’s Own Country: Germany” at a theater in Munich.⁸ Wound is Beuys’s word for his country’s Nazi past. It is an image of spiritual and physical injury he sought to heal through “social sculpture,” a belief that every

human being, should they choose to live as artists, was “capable of dismantling the repressive effects of a senile social system”—that is, the wound—“to build a SOCIAL ORGANISM AS A WORK OF ART.”⁹ If everyone lived as an artist then society, like art, could be transformed, or offer transformation.

I am a white artist of European descent. I grew up on Nyoonga Boodja, Perth, the capital of Western Australia, a thousand kilometers south of the Pilbara. I have never visited the Pilbara, but the red earth of the place, its gargantuan spiral pits cut by generations of Australians, has filled my imagination for as long as I can remember. So when I was prompted to think of art as the making of ideas and futures, at a time when Australia was reeling from the unrest at Juukan Gorge, I decided to imagine Beuys’s wound as a point of reference for the Brockman 4 mine in the Pilbara, and to think the mine as a wound that is also the ruins of the ancestral home of the Puutu Kunti Kurrama and Pinikura peoples. If, as Beuys prescribed, “everyone is an artist,” then surely that includes miners, too, but I can’t bring myself to think of the mine as an actual work of art. Sculpted by “artists”—in Beuys’s sense of the word—the mine instead becomes a “wound of art,” an expression of human intention that calls for ethical consideration and accountability for its impact on the earth.

MIND

To call Juukan Gorge a wound of art is not to see the land of the Brockman 4 mine as a utopian pit for free-for-all future building, nor as a beautiful object of

economy surveilled by the market. It was already this for the mining company that blew it up. By imagining the mine as a wound of art, and holding accountable those *artist-miners* who made it without mind for the Puutu Kunti Kurrama and Pinikura peoples who have known the shelters for 46,000 years, I instead hope to re-imagine the underlying ideologies of Australia's mining industry.

On one hand, I want to make the smashed-up earth of the Pilbara visible from an ecological point of view, as if it were a work of earth art that reveals and is revealed by the space of its injury. On the other hand, my mind is driven with the desire of Beuys's "social sculpture." I want to see Rio's *artist-miners* as responsible for their marks on the earth but also "capable of dismantling the repressive effects" of future marks. In this way Brockman 4 becomes, if only in my imagination, a "domain of ethical concern" as Amanda Boetzkes describes earth art in *The Ethics of Earth Art*.¹⁰

Likely such a domain lies not only in Beuys's social sculpture but also in what earth artist Robert Smithson called the "muddy thinking" of "abstract geology."¹¹ "One's mind and the earth," he wrote:

are in a constant state of erosion, mental rivers wear away abstract banks, brain waves undermine cliffs of thought, ideas decompose into stones of unknowing, and conceptual crystallizations break apart into deposits of gritty reason. Vast moving faculties occur in this geological miasma, and they move in

the most physical way. This movement seems motionless, yet it crushes the landscape of logic under glacial reveries.¹²

Going forward I speculate on one such “glacial reverie” between Beuys’s social sculpture and Boetzkes’s theorization of earth art. Here logic is crushed as miners become responsible (as artists) for historical wounds to the earth, while at the same time they become potential participants in a collective imagination of futures that do not drill and blast the living heritage of Aboriginal Australians.

My emphasis on language, thinking, and imagination is key. As far as I know, no change in perception is taking place in the workers at Brockman 4. There is only a discursive shift in my *mind* catalyzed by Beuys’s thinking that everyone is an artist. Indeed, it was in language, in the human ability to turn inward and give shape to feelings through words that Beuys located everyone’s potential to live as an artist, not in medium or form alone. “When I say everybody is an artist, I mean everybody can determine the content of life in his particular sphere, whether in painting, music, engineering, caring for the sick, the economy or whatever.”¹³ In Munich, he summarized his concept of social sculpture:

I am not saying that people must believe me but merely that everyone should look inwards, should in fact give words within themselves to whatever their feeling and thinking bring, allowing thinking to influence the will, and

the will language, so that there develops an ever-rising spiral process where an acute ego-consciousness, a will to self-assertion, must arise in every human being.¹⁴

To think of oneself as an artist, then, is to begin the task of understanding one's actions—whatever they might be—in a larger future-building context and in dialogue with the world.

AN EARTH ART IMAGINARY

Beuys once imagined a mine as a site of art. In 1980, he told *Art Press* that the artist is “all those who dig kaolin out of the earth, who transport it to Europe by boat, who process the raw material and finally the countless people who co-operate within the factory.”¹⁵ Here, the miner *is* an artist actively involved in shaping society, an author responsible for their marks on the earth. In this sleight of language, the *artist* becomes accountable to the forces and forms of life around them, including the earth.

Should someone from Rio Tinto happen upon this paper—which is probably about as likely as the end of mining in Western Australia—and use it to sanction future artworks of mass destruction, let me affirm the nature of these marks in their current form: they are wounds. But I'm interested in what could happen if we took the opposite approach—not sanctioning environmental violence, but attempting to re-think extraction in ways that include and ethically consider an understanding of land as alive

with Aboriginal culture, relations and ancestral spirits. This reimagining would emphasize the social reception of mining, ideally making it a form of social sculpture in action, or what Boetzkes describes as a “vision of society as... an artwork that was ever in the process of being shaped by the public” and that could “reintegrate nature into the human social structure.”¹⁶

In *The Ethics of Earth Art*, Boetzkes looks at practices and theories of earth art since the 1960s. She is especially attentive to ideas that re-orient humans toward the earth and natural forces, from Richard Serra and Joan Jonas’s site-specific performance sculptures to Hans Haacke’s condensation boxes and Robert Smithson’s non-sites. Of course, these artists are or were *practicing* artists, and Boetzkes puts their work in political and art historical context. How, for example, American earth art of the late sixties “collapsed the boundaries between the object and space” through large, spacious works outside the gallery.¹⁷ Or how the “ephemeral, small-scale gestures” of performance artists like Ana Mendieta and Richard Long left minimal marks on the land to let the earth “register more definitively as a host.”¹⁸

By imagining the Brockman 4 mine as another kind of earth art, and hence imbuing it with the ethical and aesthetic concerns characteristic of earth art, I follow Boetzkes in the attempt to “reveal the limits of an anthropocentric worldview and recognize these limits as thresholds to the excess of the earth.”¹⁹ In other words, the language of earth art lets the mine be imagined and then seen *as it is*, a

wound in the land, rather than as a place of industry dictated by popular languages of extraction. I liken this to what Boetzkes calls “recessive ethics,” an act of moving away from preconceived and rigidly defined (anthropocentric) modes of relating to the earth “in order to let the other present itself on its own terms.”²⁰ This “other” is, of course, not only the earth, but also the hollowed heritage of the Puutu Kunti Kurrama and Pinikura peoples held within it.

Take the following statistic published on the website of the Chamber of Minerals and Energy in Western Australia: “Western Australia’s iron ore sales more than doubled over the past decade, from 317 million tonnes in 2008-09 to 794 million tonnes in 2018-19. China is the State’s largest iron ore export market, accounting for \$62.4 billion (82%) of exports in 2018-19.”²¹ What is this but a tone-deaf language of extraction, a transactional tongue of iron ore—iron *more!* Most Western Australians are accustomed to this way of imagining the red earth in the north of the state. Consequently, the blasting of sacred Aboriginal sites like the ancient rock shelters at Juukan Gorge become problematic but passable potholes on the road to wealth. It is by imagining the mine as an earth art wound, made by artist-miners, that I step outside of this extractive language, what West Australian rock band *Pond* lyricize as a “dream of iron,” and see the earth as an injured host of cultural connections instead of a pit of industry.²²

RESITUATING THE IMAGINARY

Claire Bishop writes of participatory art as any kind of “post-studio” practice that hopes to “overturn the traditional relationship between the art object, the artist and the audience.”²³ If the socially sculpted proposition I’m weighing out in this paper is a kind of post-studio art making, then the site of the Brockman 4 mine as an earth artwork is, in the present moment, in our imagination, waiting to be re-imagined in some way in order to preserve the ethical stakes of a site of extraction that is also home to the spirit ancestors of the Puutu Kunt Kurrama and Pinikura peoples.

Perhaps the artwork itself is secondary to the struggle with the concept. Perhaps the struggle is the dematerialized artwork, as Lucy Lippard suggests in her definition of Conceptual art where “the idea is paramount and the material form is secondary, lightweight, ephemeral, cheap, unpretentious and/or ‘dematerialized.’”²⁴ These words give form to an underlying question: am I, in this paper, extracting—or perhaps *unearthing*—a dematerialized artwork from the material site of a mine? How else could I become the post-studio sculptor of the wound of art and the wound (or way) out of art, a quasi-miner complicit both in the act of destruction and an act of imagining the mine—and mining practices in general—outside of this destruction? Obviously, I am not a miner, and I don’t know what such practices would look like. But “creativity,” said Beuys, “isn’t the monopoly of artists.” It is open to everyone. “This

is the crucial fact I've come to realize, this broader concept of creativity is my concept of art."²⁵ Mine, too.

UNEARTHING AND UNDERMINING

"We don't yet commemorate our eco-tragedies." So writes Lucy Lippard in her deeply resonant book, *Undermining: A Wild Ride Through Land Use, Politics, and Art in the Changing West*.²⁶ For Lippard, eco-tragedies are the destructive sites of industry in the American West, from the large gravel pits near her home in Galisteo to Peabody's Black Mesa coal mine within the Navajo Nation, among other "landscape ruins" not unlike the Brockman 4 mine in Western Australia.²⁷ Allied to the book's homonymous title, Lippard *undermines* these tragedies by revealing the cultural and political knots that tie them to the earth. But it is in a surprising pivot to the *urban* landscape of New York City in the years after September 11, 2001 that she frames her call for commemorating these eco-tragedies.

Writing about the city's attempts to remember the Twin Towers, Lippard notes that "One memorial option that was not considered, as far as I know, was ruins."²⁸ She refers to Rebecca Solnit, who has said that removing ruins "can function as an urban lobotomy, erasing memory and dream, and rationalist amnesia is the current mental illness of American cities."²⁹ Although Michael Arad's recessed pools at Ground Zero are "impressive," writes Lippard, they erase the record. "We're once again deprived of our

ruin, and perhaps of our tragedy as well, however strong the economic excuse to rebuild might be.”³⁰ From this question about how humans commemorate—or fail to commemorate—*urban* ruins, Lippard puts on her hard hat of words and returns to the industrial sites beyond the city where there are ruins but no commemoration. No memories. Dream matter, but no dreamers.

“There are hundreds of thousands of exhausted sites littering the national landscape, waiting to be made meaningful,” writes Lippard.³¹ Echoing Robert Smithson’s proposals in the early 1970s to use earth art to recycle strip mines, she continues:

From Cubism to Dada to the present, artists have recycled society’s detritus, sometimes to comment on its origins. Abandoned industrial sites begging for imaginative remediation, or damage control, qualify as large-scale found objects, but they are hard to access, not to mention running the gamut of endless bureaucratic rigmarole for permission, and finding the funds.³²

What can Lippard’s words do for the Brockman 4 mine in the Pilbara, a mine that is still “alive” and a long way from being “abandoned,” a *mind* whose Aboriginal heritage, transformed by industry into iron dreams, continues to be extracted and shipped to China in the thousands of megatons? What can her words do for the image of ruined Aboriginal shelters that set this paper in motion? With Beuys in the fray,

and Boetzkes nearby, *EVERYONE IS AN ARTIST*, and as artists and dreamers, can we play at Lippard's words and ask instead, What if we recycled our *wounds*?

What if the first step in commemorating our eco-tragedies is to see these "large-scale found objects" not merely as places for remediation and reclamation, but as existing ruins and wounds, ready to "be made meaningful" following Lippard's suggestion? "A great artist," wrote Robert Smithson, "can make art by simply casting a glance," and if we are to really reconsider our relation to the other that is the earth, we must imagine the wounds we build and sustain outside of the city with the slick, anodyne machinery of patriotic amnesia.³³

At stake in this possibility is the question of whether or not we and the miners at Brockman 4 could be thought as artists. It is a problem of imagining. It is a problem of language. But it is in this problem, facilitated by the possibility of the artist as an active agent of the collective future, that I have tried to undermine Western Australia's mining identity. In encountering Rio Tinto's blast as a wound of art I have tried to mind this destructive industry and its relations to the earth in a different way, in a way that allows the earth to be seen outside of an industry that has, for as long as I can remember, co-opted the dreams of Australia's peoples—and the ancestral spirits of First Nations Australians living *within* those dreams—and shipped them *out of* mind. Logic crushed and language released, this daydreaming paper transgresses the boundaries we have made of

the earth and of our desire. There is no other way to leave the city for our ruins.

Unearthing may not entail making an object, but maybe it offers an alternative, unfixed way of thinking about discovery, of thinking about what it is we make when we mine and undermine. Unearthing is a cognitive action, a shift in thought, a neural blast or tripwire fusion of image, idea, and song that sets a morbid daydream in motion. By dreaming in the rust of unearthing, by seeing the tearing up and destruction of Aboriginal lands and cultural sites as earth art, and letting this art take the form of a dream (or nightmare), maybe we will catch a glimpse of this earth as a wound to be cared for.

NOTES

- 1 Lawful under Section 18 of the *West Australian Aboriginal Heritage Act*, no less.
- 2 One case in point: in the 1960s, the state of Western Australia could give Juukan Gorge to Rio Tinto without consent from the Puutu Kunti Kurrama and Pinikura peoples. It wasn't until 2003, in the wake of Australia's historic *Native Title Act* (1993), that Rio Tinto began negotiating the terms of its desire.
- 3 Joint Standing Committee on Northern Australia, *Never Again: Inquiry into the destruction of 46,000 year old caves at the Juukan Gorge in the Pilbara region of Western Australia - Interim Report* (Commonwealth of Australia, 2020), vii.
- 4 Ibid.

- 5 Image credit: Puutu Kunti Kurrama And Pinikura Aboriginal Corporation. Taken from Anna Henderson, “Damning letter puts Rio Tinto back in hot water over destruction of Juukan Gorge Aboriginal shelters,” ABC News, Feb. 4, 2021. <https://www.abc.net.au/news/2021-02-05/juukan-gorge-destruction-pkdp-damning-rio-tinto-letter/13123040>
- 6 Lorena Allam, “‘Devastated’ Indigenous owners say Rio Tinto misled them ahead of Juukan Gorge blast.” *The Guardian*, Oct. 12, 2020. <http://theguardian.com/business/2020/oct/12/devastated-indigenous-owners-say-rio-tinto-misled-them-ahead-of-juukan-gorge-blast>.
- 7 Joint Standing Committee on Northern Australia, 6.
- 8 Joseph Beuys, “Talking About One’s Own Country: Germany,” in *Joseph Beuys: in Memoriam: Obituaries, Essays, Speeches*, Timothy Nevill, trans. (Munich: Inter Nationes, 1986), 35.
- 9 Joseph Beuys, “I Am Searching For Field Character,” in Claire Bishop, ed., *Participation* (Cambridge: The MIT Press, 2006), 125.
- 10 Amanda Boetzkes, *The Ethics of Earth Art* (University of Minnesota Press, 2010), 3.
- 11 Robert Smithson, “A Sedimentation of the Mind: Earth Projects,” in *Robert Smithson: The Collected Writings* (Berkeley: University of California Press, 1996), 102.
- 12 Ibid.
- 13 Joseph Beuys, “Interview with Joseph Beuys,” in David Thistlewood, ed., *Joseph Beuys: Diverging Critiques*, (Liverpool: Liverpool University Press, 1995), 53.
- 14 Beuys, “Talking About One’s Own Country: Germany,” 38-39.

- 15 Alain Borer, "A Lament for Joseph Beuys," in Lothar Schirmer, ed., *The Essential Joseph Beuys* (Cambridge: The MIT Press, 1997), 33.
- 16 Boetzkes, 36.
- 17 Ibid., 28.
- 18 Ibid., 48.
- 19 Ibid., 3.
- 20 Ibid., 62.
- 21 Chamber of Minerals and Energy Western Australia, "Iron Ore," 2019. <https://cmewa.com.au/about/wa-resources/iron-ore/>
- 22 Pond. "Daisy." *Tasmania*, Spinning Top, 2019. <https://www.youtube.com/watch?v=Ap2gStsDZZo>.
- 23 Claire Bishop, *Artificial Hells: Participatory Art and the Politics of Spectatorship* (London: Verso, 2012), 1-2.
- 24 Lucy Lippard, *Six Years: The dematerialization of the art object from 1966 to 1972* (Berkeley: University of California Press, 1997), vii.
- 25 Beuys, "Interview with Joseph Beuys," 53.
- 26 Lucy Lippard, *Undermining: A Wild Ride Through Land Use, Politics, and Art in the Changing West* (New York: The New Press, 2013), 134.
- 27 Ibid.
- 28 Ibid., 130.
- 29 Ibid., 130.
- 30 Ibid., 132.
- 31 Ibid., 177.
- 32 Ibid., 177-178.
- 33 Robert Smithson, "A Sedimentation of the Mind: Earth Projects," in *Robert Smithson: The Collected*

Writings (Berkeley: University of California Press, 1996), 112.

10

BEFORE THE WORLD
WAS BLUE IT WAS
MOLTEN MAGMA

bug carlson

Here it is: I fell in love with a man who owns a very different passport than mine. We are divided by different exchange rates, relations to place, and different abilities and desires to move through the world. To fall in love with someone whose sun sets as mine rises, we know it is the same sun over very separate worlds. I daydream and anxiety spiral, binging *90 Day Fiancé*, obsessing on the state-apparatus and the “ordering regime” by which borders enable only racial-capitalist, state-sanctioned relationships and quash other kinds from unfolding.

On my way to Nepal where I didn’t know I would meet mero maya, I flew through Doha, Qatar, with a 20 hour layover. I got a deal on a fancy-ass beachside Hilton room. Before booking, I hesitated: I had read about the Persian Gulf’s skyscraper economy fueled by the the labor of the very people with whom I would

live for the next six weeks. A Nebraska-born kid from simple, sober, salt of the earth, midwestern educators, I have always been preoccupied by luxury, watching Sofia Coppola's *Marie Antionette* on repeat under my basement bedroom's drop ceiling, walls plastered with punk show ticket stubs under a second-hand blanket fantasizing my own champagne flute overflowing with bubbles and raspberries. Still, when I visit the city, I wander through Prada, my grubby plebeian hands grazing hand-dyed silk. From a friend's light-filled New York apartment, I booked the room. After all, I wanted to see the beach, and this hotel somehow owns one. A day later, I pop some muscle relaxers at JFK just as Hurricane Ida is hitting the Eastern Seaboard. I wake up 15 hours later in the Persian Gulf to photos of a flooded Philadelphia and New York. The new normal.

Multiple national passport-, visa-, vaccine passport-, PCR- and temperature-checks later, along with the compulsory purchase of a Qatari sim card, I exit to 111 degrees fahrenheit and my uber driver, a Nepali man, cranks the AC at 9pm. He is happy to tell me about Kathmandu. He points at buildings and I squint. How fast he has seen Doha grow in the five years he's been here. I am exhausted from a 20- hour flight but I make an effort. He is also exhausted and he makes an effort too. He calls his wife on video to show her the American who is going to make art in Nepal. His brother died of Covid a few months ago but he could not go home. He tells me I have a magic passport. I give him most of the cash I have. He asks to add me on Facebook and comments, "Beautiful" on

all the photos I post for a few months. My room is a nice standard double but it smells like cigarettes. I already have a headache and I'm trying to avoid an almost-sure-thing fibro-flare. The male concierge tells me there are no rooms available to move. The woman



bug carlson, *Cranes for Jellyfish*, photograph, 2022.

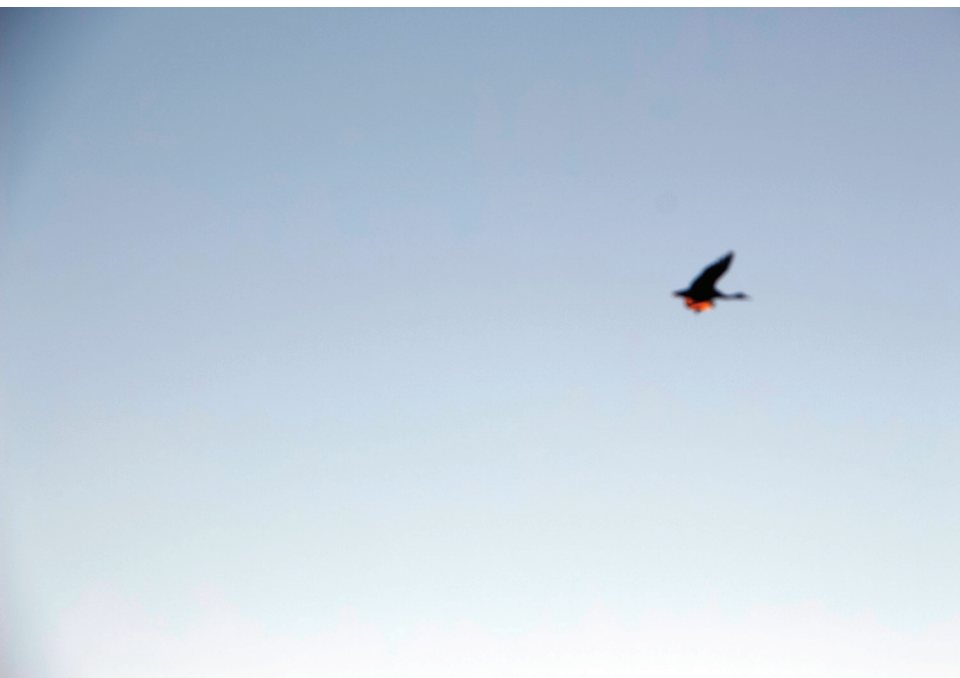
receptionist compliments my outfit and moves me up to one of the top floors. It's a chic AF suite. A Nepali man helps me move upstairs to a room so luxurious I don't know how to belong in it. He is excited when I share that I'm going to learn and make art in Nepal. He is excited to tell me more. He plugs in my phone for me. I give him the rest of my cash.

I try to step out onto the 20-something floor balcony but the heat smacks my lungs. I eat an 11pm dinner at the on-site Trader Vic's—"Home of the Original Mai Tai®," originally from Oakland, California now available beachside Qatar. I chug the cheapest wine on the menu and overhear the next table harassing my Kenyan waitress. I ask her if she misses home and she looks at me with pity and annoyance. I order pasta to go and I sit on some rocks to gaze at Doha's electric starlight reflecting on the water. A man asks me if I am okay; he wonders if I want to jump. I tell him I just like to look. I don't know how to say please leave me alone or that most of the time, I want to. The elevator treks up 20-odd floors into the hazy hot sky and I shovel noodles into my mouth while drunk in an executive bathtub.

In the morning, I wake up at 6am to swim in the Gulf and curse the sanitized and dredged shoreline. Where are all the critters? Where did they have to go? I follow some human-placed rocks to secret sleeping mussel beds and souring fish skeletons. A few algae mats later, I find a crab clamped on to the tail of a twirling dead fish, consuming flesh in a salty vortex. I meet a very cute sea bug with whom I chatter as some white Europeans stare at me. I know my new friends will be "cleaned up" soon. That pesky Western desire

to rid ourselves of the certainty of death, particularly when there's money around.

One sunburn later, I slam a coffee, liberate a few pastries into my bag, and ready myself for the final flight leg. This time, my Uber driver does not talk



bug carlson, *Cranes for Jellyfish*, photograph, 2022.



to me. During my 20-hour layover, I did not meet any of the labor migrants who built my extravagant room or installed the bath or made my bed, the person who carried the crates of wine or washed my towels or replaced the slippers I stole that now live under my bed in New Mexico, let alone the human people or materials who made them. I did not meet the plants and other-than-human animals who used to live here or the ones that are no longer allowed. I don't know who was made to dredge the beaches and build them back, nor whose hands grasped my suitcase to throw it into a luggage compartment. In the airport I read about the deaths of migrant workers in Qatar while I sip a pineapple-banana smoothie.

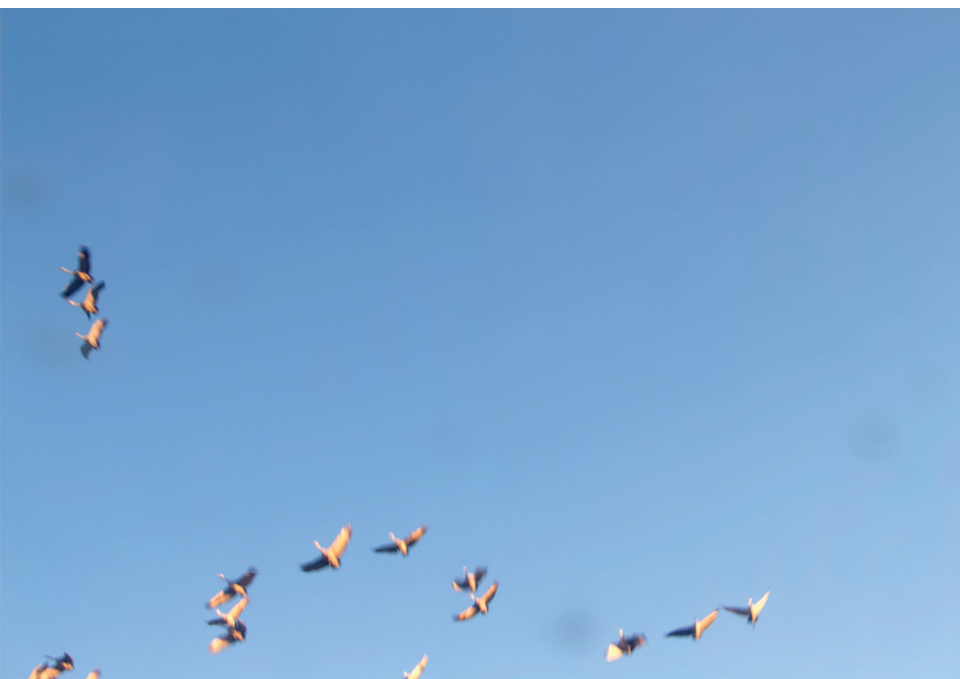
On the other side of the world is the love and world I am going to leave. A love that couldn't quite make it out of the containment of crisis, when life became smaller and harder. We hold each other in the security of our rented abode, nervous and also lucky. I wonder, if a pandemic that migrated across species and then the world never happened, would we be okay? It doesn't matter because it did and we aren't. We have grown into who we have become, it wasn't inevitable—none of this is—but love is transmigratable and can feel urgent at the end of a/world. And so we move away. Our hearts and soon our bodies.

Over our cozy house next to the Rio Grande, migrating sandhill cranes trill trumpets in massive sky swirls so high you can hardly make them out with unaided human eyes. These cranes who dance from the North where they make love and family, on through Nebraska, to a big fenced lot down the street from my house where someone puts out piles of seeds and grains. Just after dawn, they lift off of the river's shores, circling and trilling over the lot that announces "No Trespassers" and "Beware of Dog." In the lot, tall cranes dance at one another, feet forward, wings splayed for 500,000 years. My mother likes to believe the very cranes I watch are the ones that flew over her house in Nebraska a few weeks ago. I imagine the cranes and my (processed) shit mixing together in the river's flow that sometimes ends up in the Gulf of Mexico.

Before I lived under singing cranes, I lived in a house near the railroad. It was built as a tuberculosis sanitarium during the health-seeking movement of the late 19th early 20th centuries. These "lungers" migrated westward carrying "the white plague." As the territory hungered for statehood, so-called New Mexico's PR team weaponized the "climate cure" as a way to whiten the territory enough to be ratified. Enchanting the white ill of the East with the balm of salvation, they spread the infectious lie that Native people and Hispanic New Mexicans could not contract TB. Soon, TB was rampant in boarding schools and communities and as rates of TB in white communities plunged and NM earned its state(klan) hood, Indigenous nations' tuberculosis struggles were only beginning. In 2020, Native communities were

8 times more likely to contract TB. In that house, I spent hours laid up.

My new maya is an artist who also takes people places for a living. He takes me to Pashupatinath, an ancient sprawling Hindu temple complex where he



bug carlson, *Cranes for Jellyfish*, photograph, 2022.

himself may one day be cremated. We watch funerary burnings over the Bagmati river, where ashes will join water flows. I lower my mask to breathe in the humans mixing with the air and pollution and devotion. I pet a deer's nose and say hello to every pigeon I see. He shows me the shiva lingua, "It represents the microcosmos and the macrocosmos" and I know I can't wait to lick the words out of his mouth. We drink black tea and watch monkeys scramble over temple rooftops. He is amazed there are no monkeys in New Mexico; I know, me too. His family is from Kathmandu Valley, Newar people. He shares with me so many of the things he loves of home: bara and aloo, his mother's homemade raksi. I get on his 1960s motorcycle, no idea where we're headed. An hour later, my ass hurts and I write stupid love poetry while we look for frogs and I scream at leeches trying to drink my bad blood. He tells me about the Indigenous architecture and I try to explain that I'm not really from anywhere, but he has always been home. I'm a settler in the U.S., being mostly from Swedes and Brits and other white folks. When I moved out of Nebraska in my early 20s, I was sick with loneliness but I don't remember it as a home. I tell him maybe I have never belonged to a place, but certainly I reap the material benefits of the carnage my people brought when forcing unruly-to-them landscapes into blood-bathed homes. I ask my dad why our Swedish ancestors, my great great greats, left for Kansas. He said he didn't know, "probably economics." In the newly foreign Kansan fields, my ancestors awaited barrels of lye-kept lutefisk arriving from the homeland over boat, train and wagon, tasting something of home.

These stories are written into the whys and ways we move. From the slow sugar maple's sprint northward in shifting hardiness zones, the bark beetles unprecedented access to western forests through wind and warmth, the sandhill cranes who've



bug carlson, *Cranes for Jellyfish*, photograph, 2022.



crossed a continent for half a million years to sleep in the river I sleep next to. The diurnal vertical migration (DVM), that largest synchronous migration on earth; eating and fucking up and down the water column. The grandly speciated arboreal snails of Hawaii, decimated by the anglo-assisted conquering-migrant Rosy Wolf Snail, my Swedish ancestors arriving in 1868 to land already paved for continued white colonization only needing to survive one winter and it was theirs, although it was never ours. My grandma, a young girl growing up in rural depression-era missoura. By herself, she left home for Kansas City with a scholarship and a fear of using the first escalator she ever encountered because it “must cost money.” I’m on a train in Philadelphia and our bodies all move and shift in tandem, this and that way. I’m watching the waves of this metal worm move in our bodies, the totally normal everyday forces of the world and I am in wonder. The mussel reproductive migrations that are impeded by dams. The many thousands of species who migrate to make love, to rear children, to eat and sleep. The many more thousands who have left a home they love because they must, and the many who never make it to a new home. Those who have been forced to move due to environmental degradation, and also those who cannot leave and are forced to endure inhospitable and poisoning environments. Downwinders and the

people of the Bikini Atoll poisoned by the militarized imperial science of rehousing two extra carbon atoms to make carbon 14 and irradiate the world. My grandpa probably survived the war because of those bombs but I wish we hadn't.



bug carlson, *Cranes for Jellyfish*, photograph, 2022.

545 gigatons of biomass on earth moving and shifting and making new relations. The Earth's lithosphere's constant shifting and splitting tectonic movement, the pressurized magmas bursting to creating new lands, our yearly trip around the sun,



bug carlson, *Cranes for Jellyfish*, photograph, 2022.

and the sun's 220km/s spinning through Andromeda Galaxy. Follow the cosmic background noise back to The First Migration almost 14 billion years ago. It was an expansion, the primordial atom reaching out beginning time from what had only been space, spitting out hydrogen, helium, lithium. Almost 14 billion years later I take 750mg daily of "white petroleum" lithium a day, and the birth of the universe stops me from killing myself, and somewhere lithium extraction produces exploitation and U.S backed coups that so often spur "migrant crisis," producing lithium carbonate for batteries to replace the oil-fueled lifestyles of myself and my countrymen so we can keep on moving when and where we want to. On lithium I am balanced while lithium-based technosolutions continue to unbalance this world and many possible future worlds, but I settle into my euthymic contentment.

In love and pain, I return to Albuquerque with food poisoning—that final paneer momo before our foreheads touch I knew couldn't be the last. I throw up violently from Doha to Chicago, in and out of consciousness, using all my energy not to accidentally dump my barf bags on the floor before I can hand them to the sympathetic flight attendant. I go through customs in a wheelchair, for the first time knowing that with fibromyalgia it certainly won't be the last. Hyperventilating, I'm hoping to get on a standby overbooked flight.

The wheelchair attendant leaves me at the gate but I can't walk, how will I get to the bathroom? I feel indebted to Shiva for giving me mero maya (my love)

so I pray, despite being an atheist, despite having no knowledge of how to entreat a Hindu god, fearful of offending him, “Please let me on this flight. Please let me on this flight. I think I will die if I don’t get on this flight.” The flight is overbooked by one but the



bug carlson, *Cranes for Jellyfish*, photograph, 2022.

passenger who volunteered for a voucher is in a couple and they want to stay together so with maybe-Shiva's grace I hobble onto the flight and pass out between two gruff white men in military uniforms who try to avoid eye contact as I cry. Where will I go now and



bug carlson, *Cranes for Jellyfish*, photograph, 2022.

with whom? Trying to imagine any future, with love or not, I get stranded on climate crisis, environmental disaster, economic hardship, droughts and heat waves, disease, and reactionary and racialized borders. Where can be a home and to whom and for how long? Most definitions of human migration generally expect some form of permanency. In the throws of a racial-capitalist anthropocene, can stability in site ever be found? I heard Pittsburgh might be okay, but for whom and for how long? Will we move forever? Even our so-called final resting places move and migrate, flooded in extreme weather events or burned to ash in a wildfire, mixing with the vapors of interspecies death and loss. I wonder if I should ever have a baby. Will I watch them thirst to death without any way to quench. This choice, or lack of choices, is already well-known and tread by the many many migrants who are both compelled to migrate and impeded to do so by the very same hegemonic states of power, as “crises of displacement and immobility [that] prevent both the freedom to stay and the freedom to move.”¹

In movement, mobility, and migration there is interspecies sorrow and grief; joy and community; struggle, pain, death, trauma, torture, promises kept and broken. Movement is the story of the world and I am moved by stories of movement. Endless movements for liberation: the collective and the familial; of transmigrating across states of being: to unshared realities and visions from gods, to death, to extinction, to health to entropy. Every living cell is a temple to their ancestors. The dead migrate through time and

cosmic space, through dna and piss and love and blood transfusions and incineration and rivers and sweat and little t and big T traumas, and extinctions that undo migrations, through breath particles and held hands, and vagrant tumbleweed lichens never needing to find home.



bug carlson, *Cranes for Jellyfish*, photograph, 2022.

Before the world was blue it was molten magma
The earthbones tireless whirling centrifuge collects
gravity

The most ancient name for everything
Chaos chaos is to gape at the open hole
of the universe and to lick its voids
The birth of this universe is its first migration

Talk *xanthoparmelia chlorochroa* to me, that
sagebrush sea vagrant
And all the birds who migrate to make love
follow Bark beetle trails woven into time and phloem
to

Find me transmorphing death,
amber-kept in sun rays and cosmic clouds of viral-
loaded breath
Where do we go when we die
Where do we go when we are extinct
When the passenger pigeons stopped dying because
they were dead

call me transhumus and also sore
Chronicles of diasporic dandelions and the
primordial atom reaching out tendrils of before-
time into pressed flowers

I dream of kissing that first atom and slipping
tongue there is nothing like sticking your toes
into the boundaryless universe, squish and
squelch it through toewebgaps giving birth to
home

Molting along the way

NOTES

- 1 Harsha Walia, *Border and Rule: Global Migration, Capitalism and the Rise of Racist Nationalism* (Chicago: Haymarket Books, 2021).

11

THE RETROACTION OF GLACIER MELT

Futurities After Geotrampa

Amanda Boetzkes



“Meltwater gushes from an ice-cap ...”



How might we think the future of art from this originary scene? In their split-screen video *After the Ice, the Deluge (the awakening)* (2020), South African artist Linda Stupart considers the disappearance of glacier ice and the consequent upwelling of latent microbes and viruses.¹ Here, glacier melt is taken to be a mediating condition between traumatic realities: between an unnameable event in the past, an individual in the present who is in the grips of PTSD, and a heterogeneous future in which a new diversity of beings is emerging. Stupart positions this temporal space of the future in relation to cyclical returns to a past disturbance, one that registers in the symptoms of a body that is coming to terms with its own geological nature.

In the video, the diversity of the future is figured by a queer body that navigates a landscape of melting glacier in Longyearbyen, Svalbard. The scene is intercut with images of microbes, viruses and crystals. The two perspectives of a future diversity—queer body and microbial world—are woven together through the narration of melting permafrost as a geotrauma. The viewer is carried into a dawning awareness of an awakening of organisms which coincide with states of bodily shock and earthly shock. Thus, the future unfolds from the conditions of climate change as a deluge that follows glacier melt. It

appears as a flood of consciousness, as a proliferating microbial world, and as an overcoming of normative human bodies in and through the consciousness of geotrauma. In this way, Stupart ushers in an end to normative biopolitics, and creates a jointure to a time that is at once a queer utopia and dystopia, a time that copes with the geotrauma produced by the biopolitical regime.

In what follows, I want to think alongside the imagery, narrative arc and poetics of *After the Deluge*, while taking up the challenge at the heart of this book, to think the future in non-fatalistic terms. There are both flourishings and extinctions at stake in the unfolding of the future. To imagine one alongside the other recasts perspective from its anchor in anthropocentric economies of vision. Among the potential outcomes of this thought exercise is the possibility of an aesthetic sensibility that has cast off, or perhaps has never been attuned to, the strictures of critical judgment.

I propose this “prospective perspective” through two lines of reasoning: the first is that we might imagine aesthetic experience from the perspective of non-humans who, quite obviously, have not been disciplined into the tenets of white-settler-phallographic-human sensibilities. Non-humans do not necessarily schematize experiences of scale, temporality, dimensionality and even individuation itself, into ideals of art such as the autonomous, absorbed object as the culmination of modernist aesthetics, for example. They might understand such schemas in their judgments of human worlds, but

these schemas are not necessarily to their taste in their own creative productions.

The second line of reasoning is more troubling: while the tenets of aesthetic judgment are traditionally founded on the safety and boundedness of the perceiving subject (at least in the Kantian tradition), all living beings now exist in a time when both the security and parameters of individuation (including human subjectivity as a primary and historical form of individuation) are under ecological distress. Our mortal fears and traumatic violations must now be accounted for in any given perceptual experience that we might term aesthetic. One would be deluded to assume that indifference of the Kantian variety is possible. Objectivity and subjectivity are collapsing into ecologies of sense. Can we not, therefore, imagine the sensibilities that accompany this collapse? As the very future of sensibility writ large?

While imagining such a future and such a sensibility is an invitation to project ourselves forward, as Linda Stupart shows this prospective movement is nevertheless mediated by a forceful pull into an eddy of geological time. The future of beings is populated by agents that complicate the very spatio-temporal dimensions of human bodies. It is not merely the case that if humans are to survive into the future, we must combat climate change and troubleshoot glacier melt in a technological sense. That is not our future. Rather, glaciers and their inhabitants are melting *though* us. The catastrophic deluge has already happened and it has awakened us into the future as an ecology in which our individuation has

been washed through by the deluge, penetrated and implanted with the inhabitants of the permafrost.

While the provocation of this book, *Artworks for Jellyfish*, calls us to think both of the flourishing of jellyfish culture in the wake of the sixth mass extinction event, we cannot assume that jellyfish will want to make art in a future with so many other kinds of extinctions. If they are to have a flourishing culture, they might also find themselves in the quandary of whether there can be “poetry after Auschwitz”. Nevertheless, I choose to think the terms of environmental futurity (our own, that of jellyfish, and any other others who share the future) *after the ice* in order to move more deeply into the possibilities of being in-difference; in queer difference, while nevertheless being held by a traumatized earth. I therefore pursue these two lines of thought—concerning nonhuman perception and the sensibilities in/of the future—with the understanding that these are conditioned by geotrauma.

MELTING PERMAFROST AND THE FUTURE AS THE EVENT OF *NACHTRAGLICHKEIT*



“The smothering ice had left behind it rocks and scars
and sterile earth ...”





The smothering ice had left behind it rocks and scars and sterile earth



So begins the narrative of *After the Ice, the Deluge* told in the manner of a campy nineteen-fifties documentary. The video opens with sepia-toned footage of Svalbard's Arctic landscape in the summertime on the right, and black and white footage of microscopic fibers, crystals and microbes on the left. The sound of trickling water accompanies a shot of a cemetery. Seven Norwegian miners were buried here after dying of the Spanish flu in 1918. But, we are told, their bodies did not decompose, they simply froze ...



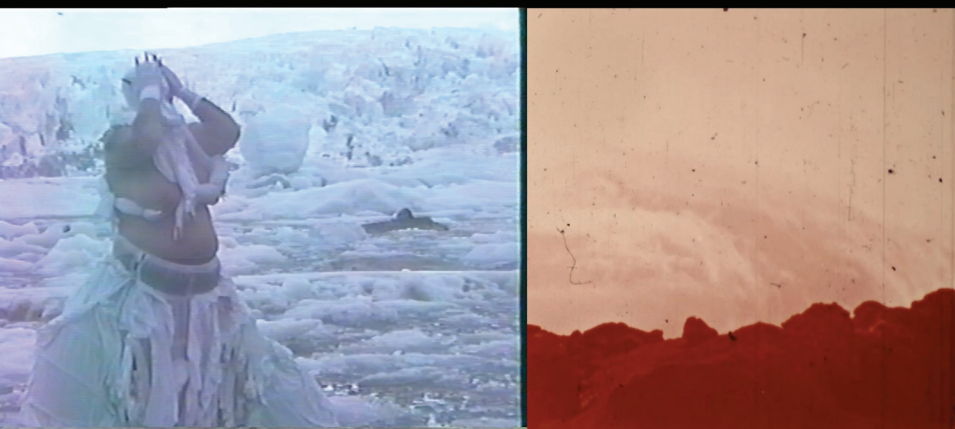


The Longbyearbyen graveyard dates back to 1918



A queer figure appears in the landscape, topless, in a white skirt, with head and face covered in white fabric, wearing white gloves and long red claws. Superfluous hands with more claws are draped around the figure's neck and belt; they dangle as the figure awakens, stretches and begins to orient themselves in this environment that is springing into new life.





The narrative continues, “climate change is melting permafrost soils, frozen for thousands of years, and as the soils melt they are releasing ancient viruses and bacteria that having lain dormant, that are springing back to life.” Two naked figures, seen from behind begin walking into icy glacier water alongside a shot of Arctic cotton grass.





are springing back to life.



“Meltwater gushes from an icecap ...”



The narrative begins to turn here in such a way as to co-pattern the body in question with the melting of polar ice caps. Stupart initiates a series of statements about the “traumatized queer body,” giving an account of its surrender to a geological eruption that arises from under the skin. They narrate the body through the experiences of someone afflicted with *Morgellon’s*

syndrome, a condition that is commonly thought of as contemporary hysteria, and could be described as a crisis of boundary integrity. It is dismissed in medicine as a form of delusional parasitosis, where the sufferer believes themselves to have been invaded by parasites, has terrible skin itchiness, and claims to be issuing fibers and crystals from sores that erupt in the skin. Stupart uses this debilitating condition as a way to identify their fictive body with the melting icecap. The narration continues: “... this rock-like particle, as large as a pinhead emerged from my skin ... Traumatized bodies are melting via cutting, vomiting, crying, leaking etc. ... We have already reached the tipping point.”



“... meltwater gushes from an ice cap ...”



The eruptions of the skin give rise to alien life forms, “...dormant bacteria, including viruses we have never encountered before as a species, are surfacing from ice caps’ melting pools ... (synonyms for melting are thawing, dissolving, disappearing, bleeding, etc...)” At this point, a nameless trauma begins to condition the body with the melting ice in such a way as to transform both beyond recognition. Ancient entities rise up in the zone where the two coincide. Traumatized body and warming permafrost have merely been temporary hosts for these painful eruptions. A temporal loop ensues and indeed absorbs the body’s linear procession through the environment. It has been wholly taken up in the temporality of environmental disturbance. The narrator explains, “When events in the present trigger a body with PTSD they experience an emotional and corporeal rupture; emotional and physical recurrences of the trauma event in the past...meltwater gushes from an ice cap. Your body in the present disappears, is overlaid by your body in the past, the no longer your body of the event ...”





TO BE PERFECTLY CLEAR



“... TO BE PERFECTLY CLEAR, no this is not an analogy ... The traumatized body actually holds the cells associated with traveling through time, viruses and single-celled organisms have in fact thawed from polar ice caps – alive after thousands or millions of years, as a result of global warming ... No this is not a related boundary crisis between skin and ice, this is literally a transmogrification ... in which the disappearing polar ice crystals reappear as nano crystals under peoples’ skin”





this is **literally** a transmogrification



I link the time-traveling quality at stake in the video—a quality invoked by the trauma of erupting microorganisms—to the psychoanalytic concept of *Nachtraglichkeit*. It's a Freudian term, but one that is regaining currency in psychology to account for the delayed experience of trauma, and the malleability of subjective experience across time.² I invoke this malleability of experience with caution, however; in characterizing the experience of trauma as a delayed event of the metamorphosis of subjective experience, the theory does not invalidate whether or not traumas happened, or are objectively real. Rather, it posits that a past trauma that is lying dormant might be unexpectedly detonated by a coalescence of external

stimuli that suddenly activate a new meaning of the event. *Nachtraglichkeit* therefore invokes both an event of lining up experiences (as though they are meaningful), but it is also the antithesis of a meaningful event because what lines up between Point A (the dormant event in the past) and point B (the event of *Nachtraglichkeit*), is an unraveling or melting of the subject's boundaries and integrity that is traumatic in and of itself. To be perfectly clear like Linda Stupart, then, *Nachtraglichkeit* is not an *analogy* between an event in the past and one in the present by which meaning takes place. It is far more material; nothing short of the catalysis of meaning as a destructive vector that destroys the subject's self-concept from the past to the present, and which the subject must then cope with in perpetuity.

This is why one should never mess around with analogies; once you realize they are potential detonators of trauma, analogies are no joke: they are not funny, cute, curious, or interesting and you should not pretend otherwise. Once you have detonated the past—perhaps you did this to someone, perhaps this was done to you, perhaps we humans are doing this to other living beings by warming all the planetary ecologies right now—you must take seriously that there is no going back. And there is no future that is not held in front of an eruption of the meaning of the past. There is only the time after the ice, the time of the deluge.

Once *Nachtraglichkeit* has occurred, and the trauma enlivened, it has a structuring power to destructure the subject. This is the transmogrification to which Stupart refers, and which they liken to the

fundamental transformation of Arctic topology that melting permafrost is, and that leads to the release of archaic viruses. In fact, it is from the framework of *Nachtraglichkeit* that the pluralisation of the artist's pronoun takes on a geological resonance as well. If trauma shatters experience and renders it heterogeneous in perpetuity, then the subject must concede not only to a non-binarity but also to a geomaterial "they".

GEOTRAUMA AND/OR THE THAW OF DIVERSITY

The trauma activated by *Nachtraglichkeit* gives way to a geological self-awareness and a new form of identification, or perhaps we might call it a non-identification, or an exo-identification. In a performance accompanying a screening of *After the Ice, the Deluge*, Stupart appears at the top of a white construction reminiscent of an iceberg. They call out,

Dear Ice, we understand what it is like to fall apart and to struggle with boundary integrity; to be constitutive of loss, to float across her seas. Sometimes it's too easy to cry white tears for melting ice caps in photographs and drawings, a loss of seas of whiteness and of aboveness or emptiness or towering solid mass.

The ice, in other words, is losing what it is as it gives way to a consciousness of itself as a plurality that is entirely alien. But while the process of

transmogrification is unidirectional and total, it also reveals that there was a coming diversity incubating all the while. The thaw brings its emergence. Stupart would not be the first to note the manifest whiteness of the environmentalist discourse of climate change which translates into a white settler visuality: images of virgin, glacial landscapes almost uninhabited except for polar bears, white hares and Arctic foxes. But the video shows how this is suddenly cracked, perturbed and rendered precarious by an invisible, acausal threat. The shattering of subjectivity is at once dystopian and utopian, for the shattering of subject and ice, of wholeness and whiteness, is the event of an unlimitation of the microbial world, an outpouring of entities that span life and nonlife, such as viruses and rock crystals.

With the surge of new entities Stupart airs a fantasy of diverse proliferation. But it is not that of renewal or regrowth in the biological sense. They conclude the video by playing *Seasons in the Sun* by Terry Jacks, a song sung by a dying man who bids farewell to his loved ones: his friend, his father, his daughter Michelle, all set to a karaoke screen with images of Arctic spring. With death and with extinction comes the end of normativity, power, morality. Relations are extinguished as well. The spring may well be a spring of a-relationality. We do not know, but this total death is not a matter of choice.





On this point, I would raise Reza Negarestani's definition of geotrauma, which inverts the spatial coordinates of the standard psychoanalytic definitions of trauma. The latter would posit trauma as the crossing of a spatial boundary between the subject and the world—the organic from the inorganic—and thus a perforation of the subject by an outer stimuli. By contrast, Negarestani defines trauma as “a regionalizing cut made by a higher universal order in its own continuous field.”³ As literature scholar Nicole Sütterlin charts, Negarestani builds a definition of geotrauma from an undertheorized passage of Freud's *Beyond the Pleasure Principle*, in which he states, “... In the last resort, what has left its mark on the development of organisms must be the history

of the earth we live in and its relation to the sun.”⁴ From this Negarestani builds to his main argument that life issues from trauma, and not the death drive. The possibility of life as such issues from a traumatic scission between the inorganic and the organic. Like a grain of sand in an oyster, the scission of geotrauma implants itself as an *inner-horizon*, and incubates through its disturbance of the body. What appears to be the subject is in fact an outer layer, a superficiality. But it is one that is nevertheless prone to “volcanic eruptions of burnt-out remains of the original person” and “purposeless energetic discharges”.⁵

Let us recall Stupart’s interest in Morgellon’s syndrome, in which the sufferer’s consciousness is compelled by its own crystalline discharges. But now, via Negarestani’s understanding of geotrauma, I would suggest that Stupart’s intervention discloses an original subject quite distinct from the traumatic queer body with which the video began its meditation. This subject is instead an alien one that appears *in and through the narrated trauma* that located a geological scission on which a new plurality is constituted. The queer body was already the host to an alien-implant that bound it together as a regionalized being and that attached itself to the (now) exteriorized subject like an umbilical cord from a baby’s naval. By the same token, if microorganisms and crystals attach themselves and erupt from the traumatized queer body, so also does that body attach itself to the planet like an embryo to the naval of the planet. The geotraumatized body expresses the earth in all its alterity, in and as its diversity. We humans and our worldly equipment

enfold the earth like a skin around the lithosphere. But its energies erupting through us, and reveal to us our plurality from the geotraumatic scission.

UNHEIMLICH, QUEER, TOXIC—SENSIBILITIES FOR JELLYFISH AND OTHER OTHERS

I want to conclude by returning to the thought that the geotraumatized (plural) subject demands a renewed understanding of aesthetic experience, and of judgment itself, as a way into thinking about artworks for the future. I began by outlining two ways of approaching the question: one from the perspective of nonhuman beings and the other from the perspective of the emergency of being itself; being under existential duress because of planetary necrosis. The tense resolution I'm offering through Linda Stupart is to think queer differences, not only as a matter of being as such but in terms of the temporality of co-emergence. Stupart charts the unexpected flourishing of diversity in and through the parameters of existence delimited and unlimited by geotrauma. This diversity involves a total death of the human as such, but not before a bodily invasion by *unheimlich* alien beings force us to bid goodbye to normative relations, even those between companion species through which the human world organizes itself.

But to dub this predicament as a queer sensibility is to say more than that the video is an elegy to heteronormative human bodies and affects, and a celebration of bodily and subjective difference broadly

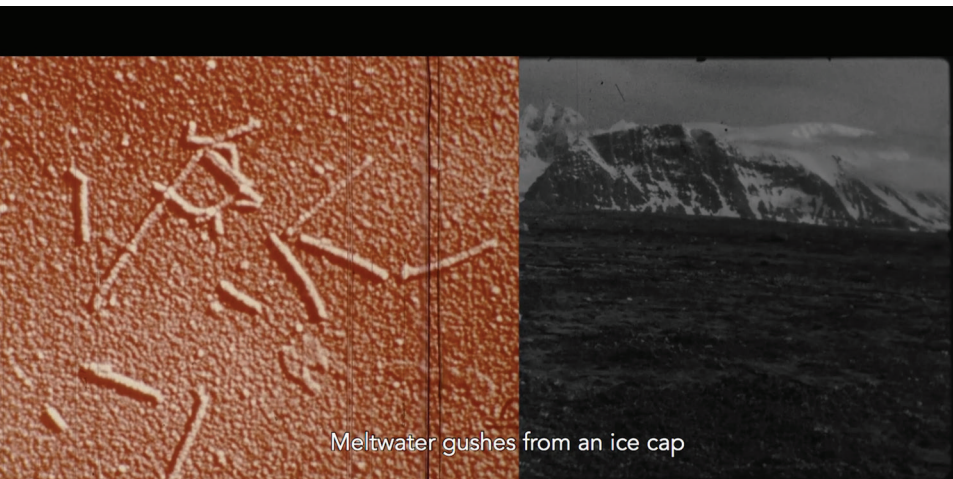
speaking. It is to locate the excess of the hetero-human—the biopolitical subject—as a generative tissue on which a queer microbial world is nourished. Indeed, the video’s efficacy lies in its capacity to locate this scission and reorient our thoughts to what issues from it. It is a queer upwelling, because what thrives at this juncture does not emerge from the seat of reproductive sexuality of humans, but instead from the ontological traumas instigated by climate change. The marker horizon of anthropogenesis – melting permafrost – has become the condition of possibility for latent beings, experiences, sensibilities, that can only be fathomed as the interpenetration of spatial scales, temporalities, orientations, and sense organologies, not to mention that these are mediated in and through geotrauma.

To go back to my initial preoccupation with aesthetic judgment (particularly the sublime): the anchor for this kind of experience in the securitization of individuatedness (*a specifically non-traumatic experience*) in order to speculate about scales and perspectives, has bottomed out from a ground that was already tenuous. The original stance of speculation and the indifference of its judgments were always already prostheses that kept bodily differences and bodiliness itself at bay. But from this Derridean reflection I am moving toward another rift. My question to this readership that I pose with Linda Stupart, microorganisms, jellyfish and so many other others is, what is the future of aesthetic experience and judgment? If this question is not for us humans—who are the vehicles of geotrauma and who are also

quite incapacitated by it—then it is for the nonhuman beings who are surviving us, or even thriving on us.

This line of reasoning (or perhaps, unreasoning) troubles any simplistic queer sensibility (not that this ever was simple). By implicating geotrauma, I am raising the distinction between queer ontology and toxic ontology. While environmental toxicities do queer bodies and do reveal the fundamental queerness of bodiliness itself, this is obviously not to say that toxicity is something to embrace in the spirit of diversity. Rather, as Mel Chen convincingly argues, toxicity presents the queer animacy and intimacy of non-beings (substances) and non-fetishistic relations.⁶ To that I would add the claim that toxicity calls the instrumentality of relations into question: beings and their sensibilities must be thought in terms of their co-existence and co-incidence as well as their sociality (their usefulness and companionability to one another). For it could only beg the speculation to imagine that any being can have an experience that sets aside its constitutive geotrauma in favour of its “moving forward” or progression through symbiotic relations of use that an environment makes available. Even if such symbioses lead to the proliferation of a species, that is not to say that the species that flourishes is not at the same time suffering the loss of other species whose deaths it profits from. The experience of others’ extinction, extinction as an experience in and of itself to those that remain, may be catalyzed from an inner horizon at any time, even from within a species that thrives on the marker horizons of the Anthropocene.

What thinking in terms of queer toxicity might do is generate a both/and experience: oddly distributed and purposeless bursts of energy at the limit of life and lives. Such outbursts might be the material of artworks of the future, then. But if toxicity is ordinary to the artworks and to the experiences they express, then the question is, what dis-orientations of thought and time might they bring?



Meltwater gushes from an ice cap



“... meltwater gushes from an ice cap ...”



NOTES

- 1 All images in the essay are stills from Linda Stupart, *After the Ice, the Deluge (the awakening)*, video, 16 min.26 sec. ©Linda Stupart.
- 2 See for example Gregory Bistoën, Stijn Vanheule, and Stef Craps, “*Nachtraglichkeit*: a Freudian perspective on delayed traumatic reactions,” *Theory & Psychology* 24.5 (2014), 668-687.
- 3 Reza Negarestani, “Globe of Revolution. An Afterthought on Geological Realism,” *Journal for Politics, Gender and Culture* 8.2 (Summer 2011), 26.
- 4 Sigmund Freud, *Beyond the Pleasure Principle*, in *The Standard Edition of the Complete Psychological Works of Sigmund Freud*, Vol. 17, James Strachey ed. and trans. (London: Hogarth Press, 1961), 32.
- 5 Negarestani, 39.
- 6 Mel Y. Chen, “Toxic Animacies, Inanimate Affections,” *GLQ: A Journal of Lesbian and Gay Studies* 17. 2-3 (2011), 265-286.

12

HOW TO MAKE ART FOR JELLYFISH

Self-worlds of Jellyfish

Ryuta Nakajima

Every work of art has an origin—it may be an object, a place, or an idea. Artists use their consciousness to process this origin, and then reformulate it as a representation. Thus, the representation of an origin can be understood as a compact, simplified, and sometimes exaggerated model of the origin. Artists do this for many-layered reasons: to study the origin, to understand the function and filters of consciousness, and to learn about themselves. They are also interested in learning about the relationship between origin and consciousness; between consciousness and representation in a broad sense; and between representation and self.

Artists study the environment that encompasses these three components independently and collectively. This is a relative dynamic of artmaking from which no form is exempt. To use a simple example, imagine a

painting of sunflowers made by Van Gogh. The origin of this painting is the sunflowers. Van Gogh's sensory organs gathered the flowers' physical presences, processed them in his consciousness, and then used his motor output to recreate this perception as a painting. Thus, an artist is a biological filter that translates an external phenomenon into a



Ryuta Nakajima, *Amburghese di cuore, no. 2*,
digital C-print, 48" x 60", 2013.

representation. If we subtract the sunflowers from the painting, we would be left with a Van Gogh.

This essay meditates on the definition of art and the artist in the context of my own artistic origin story, linked to an interest in finding ways to adapt to different contexts and situations—a form of engagement that for me resonates with the camouflage capacities of cephalopods. I’m interested in the cephalopod’s ability to pattern its body as a comparative biological model of visual communication and the provocation to make art for jellyfish as a post-representation art designed for the shared and collaborative future of the planet.

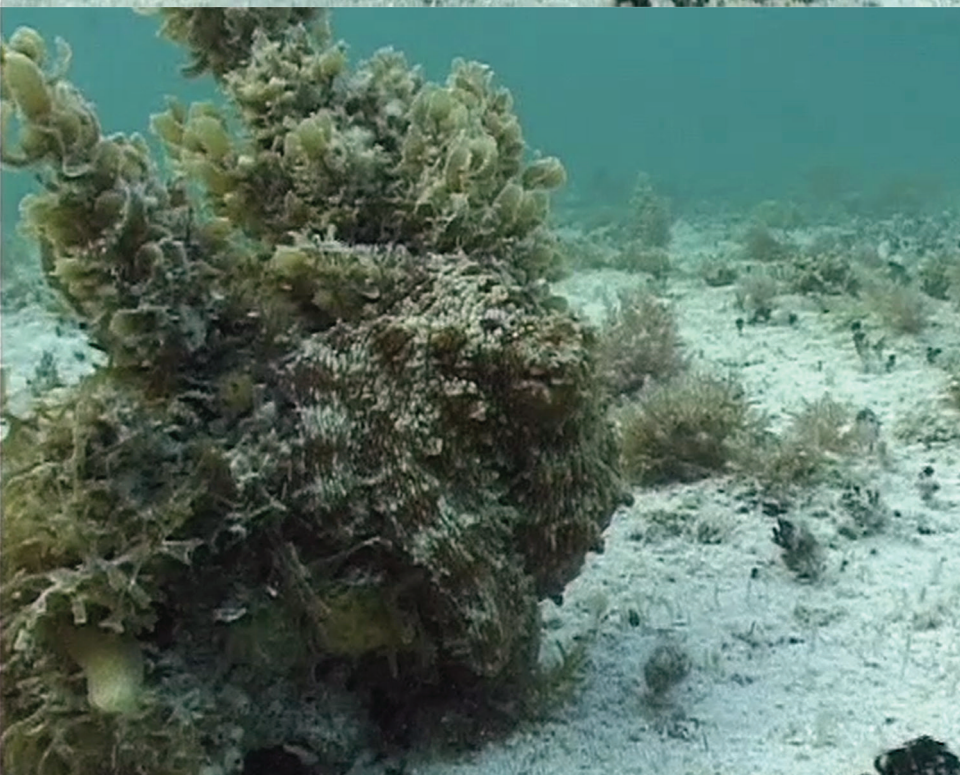
CEPHALOPOD RESEARCH

About ten years ago, I happened to watch a short video filmed by Dr. Roger Hanlon, a senior scientist and professor at the Marine Biological Laboratory in Woods Hole, Massachusetts.¹ Hanlon is one of the world’s leading scholars in the research of cephalopod behavior. The video was filmed in the Caribbean tropical waters. It begins with underwater footage of a rock covered with algae and coral. As Dr. Hanlon slowly approaches the rock, some of the algae on the rock suddenly transforms into an octopus. The octopus releases ink onto Dr. Hanlon’s face, then jets out about 10 meters, to eventually settle once again on the seafloor. As Dr. Hanlon follows the octopus, it displays a high contrast startle body pattern to fend him off. Finally, it changes its body color completely to white, with only a dark patch around its eyes. It then

expands the webs between its arms to display a fully defensive body pattern. Dr. Hanlon then highlights this incredible transformation of body pattern by showing the whole video in reverse slow motion. In the view, we can see the octopus slowly changing its color, texture, and posture to disguise itself as algae. The camouflage works perfectly, and the octopus vanishes right in front of our eyes.

When I saw the video, I felt an incredible urge to study this group of animals, which are classified as cephalopods. What kind of creatures are they? What type of reactions do they give and why? What I learned is that cephalopods are a group of animals that fall under the molluscan class, such as clams and scallops. Over 800 species of cephalopods can be found in oceans around the world.² Taxonomically, cephalopods are divided into four different groups—octopus, squid, cuttlefish, and nautilus. But unlike nautilus which have a fixed appearance, coleoid cephalopods (octopus, squid, and cuttlefish) do not have external shells for protection. They do, however, have flexible body patterns. They can change their color, texture, and posture however they want. Since the time I watched Dr. Hanlon's video, I have been studying the body pattern behavior of this enigmatic group of animals, among them, oval squids, octopuses, bobtail squids, and cuttlefish.

Roger T. Hanlon, *Cephalopod dynamic camouflage*, underwater photography, 2007. Courtesy of the artist.



I've observed some of their truly exceptional characteristics and abilities such as:

1. They have highly developed brains. Their brain-to-body mass ratio is the biggest of all invertebrates and similar to some birds.
2. They can live in diverse habitats. They can be found in cold arctic waters, as well as tropical coral reefs. They can survive in water of varying depths, ranging from less than 1m to over 5000m.
3. They have sophisticated eyes, much like our eyes with a lens. The giant squid has the largest eyes among all animals.
4. Their body size and shape vary greatly, ranging from 10mm to 18m.
5. Squids can fly to escape from predation.
6. They can camouflage their bodies according to their surroundings.
7. They use jet propulsion for locomotion.
8. Some species are known to change their gender appearance from male to female or female to male during mating season.
9. Some use their body patterns to hypnotize their prey during hunting.

Roger T. Hanlon, *Cephalopod dynamic camouflage*, underwater photography, 2007. Courtesy of the artist.



10. They also use their body patterns for inter- and intraspecies communication.
11. They use inking for multiple purposes, such as defense and hunting.
12. They use bioluminescence as a counter-shading mechanism and for communication.
13. Some squid species are known to have the ability to organize complex social structures.
14. They have the ability to learn.
15. Cuttlefish are known to have excellent long-term memory.
16. They are food for many other species, including humans.

Of these repertoires of cephalopod abilities and characteristics, what interests me most is their ability to use their sensory organs to capture information from the environment, process the information using their brain, and send a signal to their motor organs to change their visual manifestation. Their body pattern creates a feedback system by closing the information loop between the animal and its environment. While studying this visual system, I realized that what I do as an artist to change an origin to a representational model is similar to how cephalopods change their body patterns according to their environments. So, I started to study their body pattern behavior as a comparative model for artmaking that shares the fundamental cognitive translation of external visual information into a series of codified visual outputs—despite our different motivations for doing so.

To push this idea forward, observe the following diagram: An artist and a squid are shown in a shared singular reality. Both have physiological and cognitive differences, including their respective sensory systems and the limitations of those systems. Both the artist's and the squid's self-worlds are limited to their respective sensory and cognitive parameters and, thus, different from each other. For instance, many species of squids are color blind but also can detect polarized light that perceive the world differently from a human. Within their respective self-worlds, and in response to their respective environments, the artist makes art, and the squid adjusts the display of its body pattern. Although there is a difference in the motivation and functions of the two, there is an overlap. Now, if we can identify the overlapping area, we might be able to find a fundamental core schematic of visual communication. This can also help us understand the reality we share with them, which would otherwise be inaccessible. Humans sit on the evolutionary peak of vertebrates, while cephalopods sit on the evolutionary peak of invertebrates. So, I decided to conduct a comparative study between the two to understand how intelligence evolves in relation to visual communication.

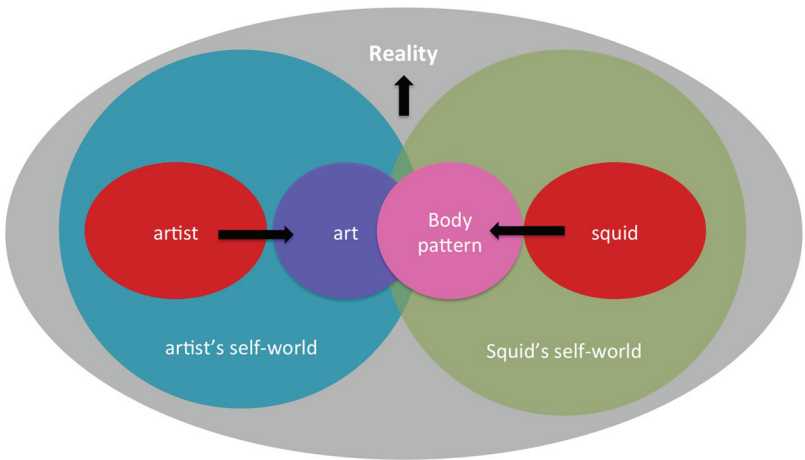
I conducted my research at the National Recourses Center for Cephalopods (NRCC) in Galveston, TX. The NRCC is one of the global epicenters of Cephalopod study, and I am very fortunate to have had the opportunity to conduct a series of behavioral experiments at this facility. As part of the experiment, I placed a cuttlefish in an artificial sapphire glass

tank, and placed a large LED monitor underneath it. I then displayed diverse computer-generated images on the monitor, including paintings, photographs, and videos. Using this experiment, I tested how well a cuttlefish can camouflage itself to match artificial images, which have no relationship to the formal qualities of natural substrates.³



Ryuta Nakajima, *Amburghese di cuore, no. 2*, digital C-print, 48" x 60", 2013.

For the past 11 years, I have conducted these experiments on the visual communication system of cephalopods and used the data that I gather to make artworks and write scientific papers. Scientifically, I have been creating a body pattern catalog of the pharaoh cuttlefish, *Sepia pharaonis* to track the changes in body pattern response according to visual stimuli such as food items, substrate, and mating.



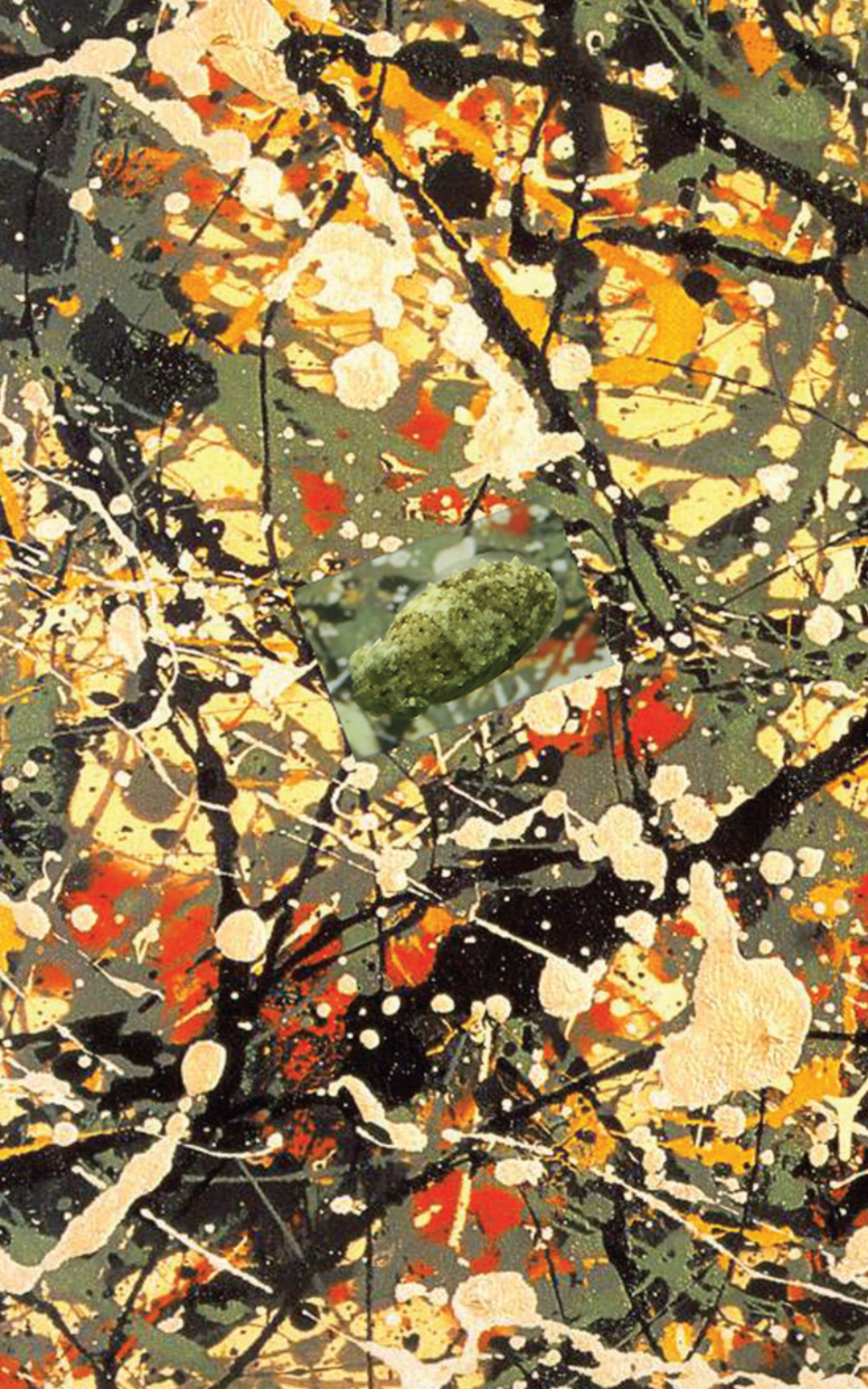
Ryuta Nakajima, Diagram: *Comparative self-world of human artists and squid*, 2020.

ADVERSE EFFECTS OF ANTHROPOGENIC ACTIVITY

Since I started working with cephalopods, I have spent much time observing and filming their behavior in the waters surrounding the Okinawa archipelago in Japan. I have been working for the past forty years in the islands of Okinawa, which have one of the most economically valuable coral reefs in the world. During this time, I have observed a considerable decline in the health of coral reefs, including the coral breaching events that happened in 1998 and 2016. The reef is changing rapidly; I no longer see the level of biodiversity that was common twenty years ago. Anthropogenic activities such as agricultural, industrial, and household runoffs, over-tourism, sound and light pollution, coastal developments, landfill projects, trash pollution, overfishing, oil spills, cruise ship contamination, and so on, have had several impacts on the world's oceans including but not limited to rising sea temperature, seawater acidification, rising sea levels, changing water currents, and much more. Some of these are direct impacts, while others are secondary.

Ryuta Nakajima, from the series *88 Cuttle*, cuttlefish, aquarium tank, LED monitor, 2010. This image depicts Pablo Picasso's Early Analytical Cubism painting, *Ma Jolie* (1911-1912) and a small cuttlefish trying to disguise its body like the painting.





Anthropogenic activities such as landfill projects and ocean trashing have direct impacts that can be easily detected, as millions of tons of concrete are poured on live coral reef every day. On the other hand, secondary impacts are harder to detect, like the temperature change caused by increased CO₂ levels in the atmosphere. These direct and indirect anthropogenic stressors transform ocean conditions and significantly reduce coral coverage rate and biodiversity. The IPCC's sixth assessment report states, "It is unequivocal that human influence has warmed the atmosphere, ocean, and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere, and biosphere have occurred."⁴

The problems that humans are causing to the planet do not stop at the edge of the ocean: indeed, we are changing the ocean's condition in fundamental ways. Ocean resources are depleting at an alarming rate, and fishers are not able to catch as many fish as before. We are experiencing more powerful hurricanes and typhoons at a more frequent rate than ever. These daily impacts of climate change cause meteorological damages that cost billions of dollars worldwide and threaten our sustainability. If we keep proceeding down the same path that we have been walking in

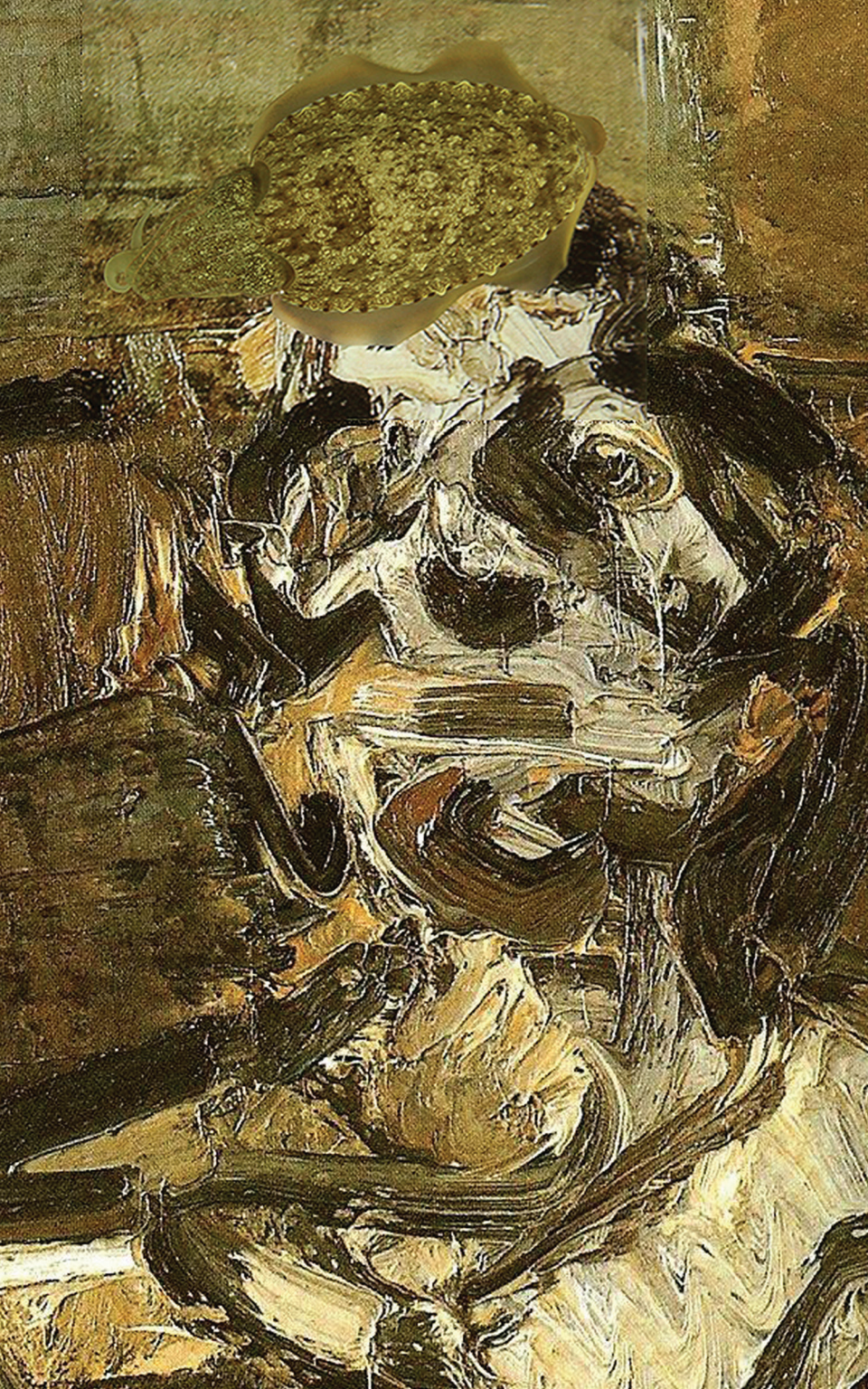
Ryuta Nakajima, from the series *88 Cuttle*, cuttlefish, aquarium tank, LED monitor, 2010. This image depicts Jackson Pollock's Abstract Expressionist drip painting *Number 8* (1949) with a cuttlefish swimming above it.



Ryuta Nakajima, from the series *88 Cuttle*, cuttlefish, aquarium tank, LED monitor, 2010. This image depicts Piet Mondrian's *Composition with red, yellow, blue, and black* (1930) and a juvenile cuttlefish trying hard to mimic Mondrian's black line.

for the past two hundred years, the ecosystem found around a deep-sea hydrothermal vent might be the only thriving ecosystem in our future oceans, as these species are more tolerant of extreme climatic conditions.

Scientists also report differences in species' reactions to climate change. "Jellyfish bloom" is a phenomenon in which large jellyfish aggregations occur at various locations worldwide, sometimes to the extent of destroying fishing nets. Some scientists attribute this phenomenon to rising ocean temperature, which increases the metabolism of jellyfish, and speeds up their life cycle. Other reasons quoted for this phenomenon are coastal development that increases pollutants in the water, overfishing, which reduces the natural predators of jellyfish, abundance of human-made structures in oceans, the presence of dead zones with a deficient level of oxygen, and water eutrophication. Although it is difficult to assess such a complex phenomenon and attribute it to even more complex meteorological and anthropogenic conditions, it is not difficult to imagine that the changing climate and ocean conditions can impact species in different ways, favorable to some and not so favorable to others. Currently, Cnidarians like jellyfish are responsible for 0.1GT of biomass compared to humans at 0.06GT, fish at 0.7GT, and wild mammals and birds combined at 0.009GT.⁵ If, indeed, climate change is decreasing fish biomass while increasing Cnidarian biomass, then "Jellyfish bloom" will occur more frequently in the future, thereby creating a shift in ocean ecology.



SELF-WORLD OF A JELLYFISH

Planula, scyphistoma, strobila, ephyra, and medusa are the various stages in a Cnidarian's life cycle. Among these, the organism that exists during the medusa phase is commonly referred to as the jellyfish. The various life stages of the jellyfish allow them to exist both as benthic and pelagic animals. The medusa phase is the adult sexual free-swimming stage that gives them a reproductive advantage and allows them to engage in habitat expansion. Jellyfish evolved around 500 million years ago, and there are as many as 300,000 species of jellyfish altogether, out of which 2000 species have been currently identified. They are divided into four different taxonomical groups: Scyphozoa (true jellyfish), Cubzoa (box jellyfish), Staurozoa (stalked jellyfish), and Hydrozoa. All four groups can be found both in marine and freshwater environments. A jellyfish can grow up to two meters in diameter, with tentacles growing up to 36 meters long. They live for several years, and function as both predators as well as prey within the food chain. They do not have a central nervous system or brain and use their diverse sensory organs to navigate their environment.

Ryuta Nakajima, from the series *88 Cuttle*, cuttlefish, aquarium tank, LED monitor, 2010. This image depicts a cuttlefish placed over Frank Auerbach's a figurative abstraction painting *Head of JYM* (1982).

What is the self-world of jellyfish? How might we see the world through their eyes? The sensory system of jellyfish is multivalent and complex. Although it is still not well understood, it has been proven that their sensory organs can detect light intensity, chemical properties, tactile information, and water pressure changes. Out of the known species of jellyfish, Cubzoas (box jellyfish) are a fascinating group that have complex optical sensors. Box jellyfish have 24 eyes of four different types. Their upper and lower lens eyes are like the eyes of vertebrates in forming images, while their pit eyes and slit eyes are more primitive like pinhole cameras.⁶ Like other species of jellyfish, box jellyfish do not have a central nervous system, however, it has a developed network of nerves. Box jellies' optical sensors allow them to perform simple tasks like responding to light and shadow and avoiding obstacles. Their life activities consist of swimming around, avoiding danger, accidentally catching prey (as they are not active hunters), and finding their mate by chance.

Most often, box jellyfish engage in activities without a sense of self, without self-awareness. This is a notable distinction between our self-world and the self-world of jellyfish, or rather, their lack of it. Their lack of a central nervous system, including the brain, means that they cannot generate sensory feedback to cognitively comprehend and separate themselves from their environment. Jellyfish existence is immersive and fused without boundaries between the self and the world. From a certain vantage point, a box jellyfish's life resembles that of the ultimate Zen master, achieving enlightenment through the paradoxical

reduction of ego. By minimizing the effect of ego, monks attempt to find nonhierarchical harmony with their surrounding elements. For example, a conversation between a Zen master and a student might be:

“Who am I?”

“There is no I to speak of.”

“Who are you?”

“When there is no I, how could there be you?”

“What is the difference between a rock and I?”

“Just hit yourself with a rock.”

Such Zen conversations try to deny the centralized understanding of the world governed by one’s consciousness. The Zen concept says that there is no difference between you, I, and the world. And that is essentially the life of a jellyfish.

The enlightened context of a jellyfish is essential when considering the possibility of making art for jellyfish. Art is a representation of unattainable reality. It helps consciousness access the metaphysical world, which requires a moment of separation between nature and consciousness. Since jellyfish already reside in the realm of that metaphysical reality, it is safe to say that they do not require art. Their capacity for non-consciousness existence pre-empts the necessity of such representations, perhaps of representation of any sort. Although both Cephalopods (eg. cuttlefish) and Cnidarias (eg. jellyfish) are invertebrates, there is a significant physiological difference between them: the presence of a central nervous system. Cephalopods with a large

and complex brain can control their behavioral output according to various external stimuli. This is not the same for jellyfish, where the boundary between it and its surroundings is vague and undefined. A representational model of artmaking requires an awareness of this boundary, a separation between the environment and the individual. However, a jellyfish's capacity for non-engagement presents the potential for a new approach to art-making, freed from the need for environmental separation, and with the promise of producing art within Nature itself. This post-representational model of art recognizes all entities of Nature as integral and connected parts forming wholistic and non-hierarchical states in which art seamlessly comes into being. My attempt to create art to preserve biodiversity for box Jellyfish investigates this post-representational approach to artmaking.

ART FOR JELLYFISH

Given that a jellyfish would have no need to make art (at least in a representational form), I will shift my goal of asking what jellyfish art would look like to the question of how I might hypothetically make a sight specific green infrastructure to rehabilitate a mangrove ecosystem by using jellyfish as a key species. Rather than focusing on representation or the organism's self-representation (as in the case of the Cephalopod), I focus on forms of collaborative engagement with nature that might effectively reduce anthropogenic impact on the ocean's biodiversity. For this project, I decided to study the box jellyfish,

as it has trackable behavioral repertoires, including hunting, locomotion, and mating, which are guided by their sensory system. The project would be conducted in a mangrove forest of Okinawa, where the island has lost more than 70% of its coral reef coverage over the past fifty years, due to coastal development, landfills, military activities, and general modernization. The project would aim to replenish a healthy mangrove forest that could enrich and restore shallow water biodiversity and promote a green infrastructure that benefits both humans and nature.

The site of this imaginary project will be at the base of the Henoko-Oura bay, located on the northeast coast of the Okinawa Island. This bay has a unique ecosystem that combines mangrove forests, coral reefs, seagrass beds, and sandy flats that hold more than 5000 species of animals, including 262 that are known to be endangered, and many others that still remain undescribed. It is also the northernmost point and the largest known colony for blue coral (*Heliopora coerulea*). The place started losing its diverse ecosystem when it was selected as a relocation site for the U.S. military base. The U.S. military began a landfill project in 2017, filling up almost 2km² of the bay with garbage. This destruction continues today. Many local and international conservation organizations have been opposing and protesting this senseless destruction ever since. It has been selected as one of the “hope spots” that require preservation, by the Mission Blue organization founded by (the marine biologist?) Dr. Sylvia Earle.

The mangrove forest found at the mouth of the Oura river that flows into the bay has been cut down, pushed back, and replaced by a concrete, artificial structure, which now divides the forest on either side of the river. As a result, much of the flora and



fauna that depended on the forest have perished. Mangrove forests support one the most productive and biologically diverse ecosystems. The roots of the trees in these forests that are exposed above the substrate provide essential shelter for juvenile fish, crustaceans, and other species that live between the tree trunks. The flora present in mangrove forests is also known to absorb up to four times more carbon dioxide per area than those in terrestrial forests.⁷ They also help retain coastal sediment by slowing down erosion and protecting coastal ecosystems.

My project is straightforward. It involves working with a circular mangrove forest of a diameter of 300m, covering an area of 70,000m². The goal of this project would be to replenish the mangrove forests in the selected area, which will benefit all living organisms, including jellyfish. The circular design of the project area has been derived from the Zen circle that represents a state of nothingness in traditional Zen calligraphy. The circle will provide various resources for box jellyfish, including shelter, food, and reproduction, and would therefore serve as an ideal habitat for the jellyfish. Area A, containing dense mangroves, will offer protective shelter for fish and small crustaceans. Increasing the biomass of the smaller organisms will be beneficial for the jellyfish and a wide variety of predators such as sea birds

Ryuta Nakajima, *Concept sketch: Artworks for Jellyfish*, 2020.

and mid-size fish. Area B is an open space that is not accessible by large predators such as turtles and large fish. This area will allow the jellyfish to aggregate in healthy numbers and increase their chances of finding mates. The circle will attempt to restore the lost habitat of the forest and function as



Ryuta Nakajima, *Concept sketch: Artworks for Jellyfish*, 2020.

an artificial catalyst to proactively increase the ocean's productivity. The jellyfish will also benefit from the structure.

The circle that has been selected for this project has been strategically placed to drastically filter and reduce runoffs, thereby protecting the coral



Ryuta Nakajima, *Concept sketch: Artworks for Jellyfish*, 2020.

reef in the bay and further increasing the biomass and biodiversity of the bay. Such an increase will also help in building a sustainable local fishery. The structure will also help protect coastal communities from natural calamities such as surging sea levels and tsunamis caused by earthquakes. Instead of constructing a massive concrete seawall that would destroy the ecosystem of this circle, we could develop this artwork, as it will nurture the ecosystem by offering protection to the organisms thriving in it, reducing runoffs, enriching biodiversity, and producing important nutrition. This is my artwork for a jellyfish future.

The rising effects of climate change requires artists to change the focus of their social role from developing works focused on individuals, to a collaborative model of engagement that paves the way for social betterment by connecting seemingly fragmented entities, including nature. This sort of transformation, I hope, will help to turn around the current climate crisis and other related problems by supporting the ecosystems of this planet. In this way, and only in this way, can we continue to coexist with the wonderful creatures that live and share this planet with us.

NOTES

- 1 Roger Hanlon, *Octopus vulgaris Camouflage Change*, YouTube, April 23, 2012. <https://youtu.be/JSq8nghQZqA>. For full citation, see: R.T. Hanlon, "Cephalopod dynamic camouflage," *Current Biology* 17.11 (2007), R400-R404. doi:10.1016/j.cub.2007.03.034.
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- 3 Over, 10,000 images were taken during this experiment. 88 were selected for an installation at Okinawa Prefectural Art Museum in 2010.
- 4 V.P. Masson-Delmotte, P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou, eds., *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge: Cambridge University Press, In Press).
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- 7 D. C. Donato, J. B. Kauffman, D. Murdiyarso, S. Kurnianto, M. Stidham and M Kanninen,

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CONTRIBUTORS

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Amanda Boetzkes is a theorist of contemporary art and aesthetics. Her research focuses on the relationship between perception and representation, theories of consciousness, and ecology. She has analyzed complex human relationships with the environment through the lens of aesthetics, patterns of human waste, and the global energy economy. She is the author of *Plastic Capitalism: Contemporary Art and the Drive to Waste* (MIT Press, 2019), *The Ethics of Earth Art* (University of Minnesota Press, 2010), and a forthcoming book titled *Ecologicity: Vision and the Planetaryity of Art*. Edited books include *Heidegger and the Work of Art History* (Routledge, 2014), and *Art's Realism in the Post-Truth Era* (2023). Her current project, *At The Moraine*, considers modes of experiencing environments with a special focus on Indigenous territories of the circumpolar North. Amanda Boetzkes is Professor of Contemporary Art

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bug carlson (they/them) is an Albuquerque artist-researcher informed by ecology and interspecies relationships. carlson received their MFA in Interdisciplinary Art from the University of Pennsylvania (PA, 2017) and their BFA in Art History and Studio Art from Creighton University (NE, 2013). carlson has attended residencies at Wassaic Project (NY), BigCi (NSW, Australia), Montello Foundation (NV), Vermont Studio Center (VT), Kimmel Harding Nelson (NE), the Union for Contemporary Art (NE), and Feminist Summer Camp (UT). carlson has participated in group and solo exhibitions as well as lectured, performed across the U.S. and internationally. carlson has received awards including Puffin Foundation Environmental Grant, Albuquerque Public Art Program grant and Penn Praxis Social Impact Award Project & Grant. carlson is a part-time faculty and program coordinator for the Art and Ecology program at the University of New Mexico. They have held positions at Bemis Center for Contemporary Art (NE) and the Institute for Contemporary Art (PA). <https://www.bugcarlson.com>

Nicole Clouston is a practice-based researcher who completed her Ph.D. in Visual Art at York University in Toronto. In her practice, she asks: *What happens when we acknowledge, through an embodied*

experience, our connection to a world teeming with life both around and inside us? Nicole has exhibited across Canada and internationally, most recently in Berlin, Germany. She was the artist in residence at the Coalesce Bio Art Lab at the University at Buffalo and the artist in residence at Idea Projects: Ontario Science Centre's Studio Residencies at MOCA. Nicole has created public art projects for Nuit Blanche, the City of Burlington, the City of Markham and the City of Hamilton. <http://www.nicoleclouston.ca>

Silas Fischer (they/them) is an artist-scientist and current PhD Candidate studying avian ecology. Their research interests broadly include annual cycle ecology and conservation of birds, in particular migration and post-fledging ecology of little-studied species with an emphasis on how dryland songbirds are responding to climate change. Silas integrates their science and art practices to challenge categories and explore underrepresentation, gender, and queerness to include and engage others in how we relate to the more-than-human world. Silas has a BFA in printmaking and a BS in biology from Ball State University and an MS in ecology from The University of Toledo. <https://www.sefischer.com>

Ted Hiebert is an artist and theorist and Professor of Interdisciplinary Art at the University of Washington Bothell. His work examines the relationships between art, performance, and digital culture with a particular focus on the absurd, the paradoxical and the imaginary. <http://www.tedhiebert.net>

Terrance Houle is an internationally recognized Canadian interdisciplinary artist and member of the Kainai Nation and ancestry from the Sandy Bay Reservation, Manitoba. His Mother is Maxine WeaselFat from the Kainai Nation and Father Donald Vernon Houle from Sandy Bay Reservation in Manitoba, they are both 3rd generation Residential School attendees & reside on the Blood reservation in Southern Alberta, Canada. His work ranges from subversive to humorous absurdity to solemn and poetic artistic expressions. His work often relates to the physical body as it investigates issues of history, colonization, Aboriginal identity and representation in popular culture, as well as conceptual ideas based on memory, home, and reserve communities. He has co-directed a Short Animation Otanimm/Onnimm with his daughter Neko which is currently touring Film festivals, In Los Angeles, NYC, Toronto, New Zealand, Vancouver, Oxford & many more. Recently their short film won the prestigious Golden Sheaf Indigenous Award at Yorkton Film Festival and is Neko's First Award in Film at 17 years old. Houle works in whatever media strikes him, and has produced work in photography, painting, installation, mass marketing, performance, music, video, and film. Houle is based in Calgary, Alberta.

Jessica Jacobson-Konefall is an adjunct professor at the University of Manitoba. Her research interests include Canadian and Indigenous art, Marxist feminism, Critical Theory, Indigenous and critical race theory, and poststructuralist theories. Her

current SSHRC Insight Development project focuses on ecological aesthetics in Treaty 1 and Treaty 3 territory (Manitoba/Ontario). She is Collaborator on the SSHRC Partnership Grant Archive/Counter-Archive out of York University, with Anishinaabe artist and cultural worker Angelina Mcleod (Shoal Lake 40 First Nation) and Urban Shaman: Contemporary Aboriginal Art Gallery, working on an art/academic project relating birchbark scrolls with civic/reserve archives. She is working on two book chapters on the relationship between energy “resources” and contemporary arts in Canada, and writing a monograph focused on the art of Rebecca Belmore and other contemporary artists in light of the question: “what does it mean to be here in a good way?” She is a practicing artist.

Cavil S. Kentis is an Irish neuromusicologist (PhD, Trinity College Dublin) whose notable investigations of the affective potentials of music have appeared in papers such as *The Naloxone Effect* (Brain Sciences), which examines the titular drug’s suppression of emotional responses to music over the long term; *Feeling and Echoing* (Perception), an inquiry into the employment of music as “spatial obfuscator” via principles of echolocation; and an important study of Declan Morl (*The Neurogamist*, Journal of Psychophysiology), whose underground sessions in 1930s London explored the hypnotic properties of music, that won Kentis the Mekesk Essay Prize (Neuromusicological Institute), enabling him to embark on a career as a self-described “freelance

neurogamist,” leading to speaking tours across North and South America, Europe, Asia and Australia, achieving especial prominence for a brief period on the motivational circuit concentrated on the West Coast of the United States. An occasional teacher (Goldsmiths, University of London; Royal Conservatory of The Hague), Kentis has been sought after by both industry and governmental interests, in his capacity as expert consultant on the uses of music within frameworks of control.

Ryuta Nakajima was born in Tokyo, Japan. He grew up in many places around the world, including Lebanon, Kuwait, Switzerland, Egypt, and Japan. He is currently working as an Associate Professor at the University of Minnesota Duluth Department of Art and Design. Nakajima received his Ph.D. from Kyushu University in Design, MFA from the University of California San Diego, is an ordained Esoteric Buddhist priest. Nakajima merges biology and art, publishing scientific papers on cephalopod behavior while highlighting the art and design represented in this class of animals. Nakajima explores various art forms, including painting, sculpture, and installation. Nakajima has also been active in nature conservation and social reform through multiple activities. In 2004, he joined the Bicycle film Festival as a curator, promoting the joy of cycling to reduce carbon emissions and better overall health in urban areas. In 2015, Nakajima launched Okinawa Seaside Laboratory, focusing on coral reef conservation, working closely with local scientists

and educators conducting lectures and workshops, especially for children from underprivileged families. Locally, he has been corroborating with Minnesota and Wisconsin Sea Grant to produce a traveling exhibition and zine “Black Gold” promotes freshwater ecosystem conservation around the great lakes region.
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Sky O’Brien is a visiting professor at Principia College where he teaches writing. He holds an MFA in Creative Writing & Poetics from the University of Washington and is the deputy editor of *Dispatches Magazine* based in Berkeley, CA.

Amanda White (she/her) is a white settler artist and scholar, living and working on the traditional territories of the Mississaugas of the Credit, Anishinaabe, Huron-Wendat and Haudenosaunee peoples in Toronto, Canada. Amanda is currently a SSHRC Postdoctoral Fellow at the Centre for Sustainable Curating, Department of Visual Art, Western University. Her current work is focused on plants, food, and environmental justice.
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Cavil S. Kentis

Ryuta Nakajima

Sky O'Brien

Amanda White

After humans destroy one another's worlds, what will be left are the jellyfish. At least, this is the suggestion of the biologist Jeremy Jackson, who argues that the synergistic effects of the 6th mass extinction have led to the flourishing of some species—such as jellyfish. Such thriving is almost certainly not what Joseph Beuys had in mind when he argued that we are creating the "total artwork of the future social order." But what would happen if we held these provocations together: that human auto-destruction is a creation for other worlds, other species ... other others? *Artworks for Jellyfish* collects writings from artists, theorists and scholars of science on the question of how art mediates and mitigates our imagination of the future in the wake of an extinction event—or, to put it a little bit differently, how to make artworks for jellyfish.



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