

# The Great Delusion

An artist's thesis from within the climate crisis.



by Beth Johnston

2022



Bill McKibben wrote, 'We live in a post-natural world.' But did 'Nature' in this sense ever exist? Or was it rather the deification of the human that gave it an illusory apartness from ourselves? Now that non-human agencies have dispelled that illusion, we are confronted suddenly with a new task: that of finding other ways in which to imagine the unthinkable beings and events of this era.

-Amitav Ghosh, *The Great Derangement*

4







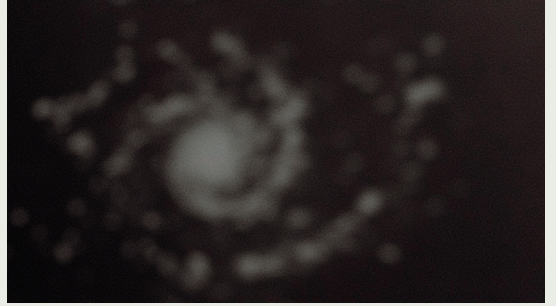








Title: The Great Delusion  
Medium: Video  
8 minutes 10 seconds



10



## Video Transcript

Let's start in the middle  
the perceived now  
with a strange question.

What is this thing?

This nature thing?

This thing  
I'm told  
has life  
is life  
is more alive than my inherited-ly  
blind life.

This nature thing.

Yesterday I read about ticks.

Their territory is growing you know  
because of the warming.

What does warm look like?

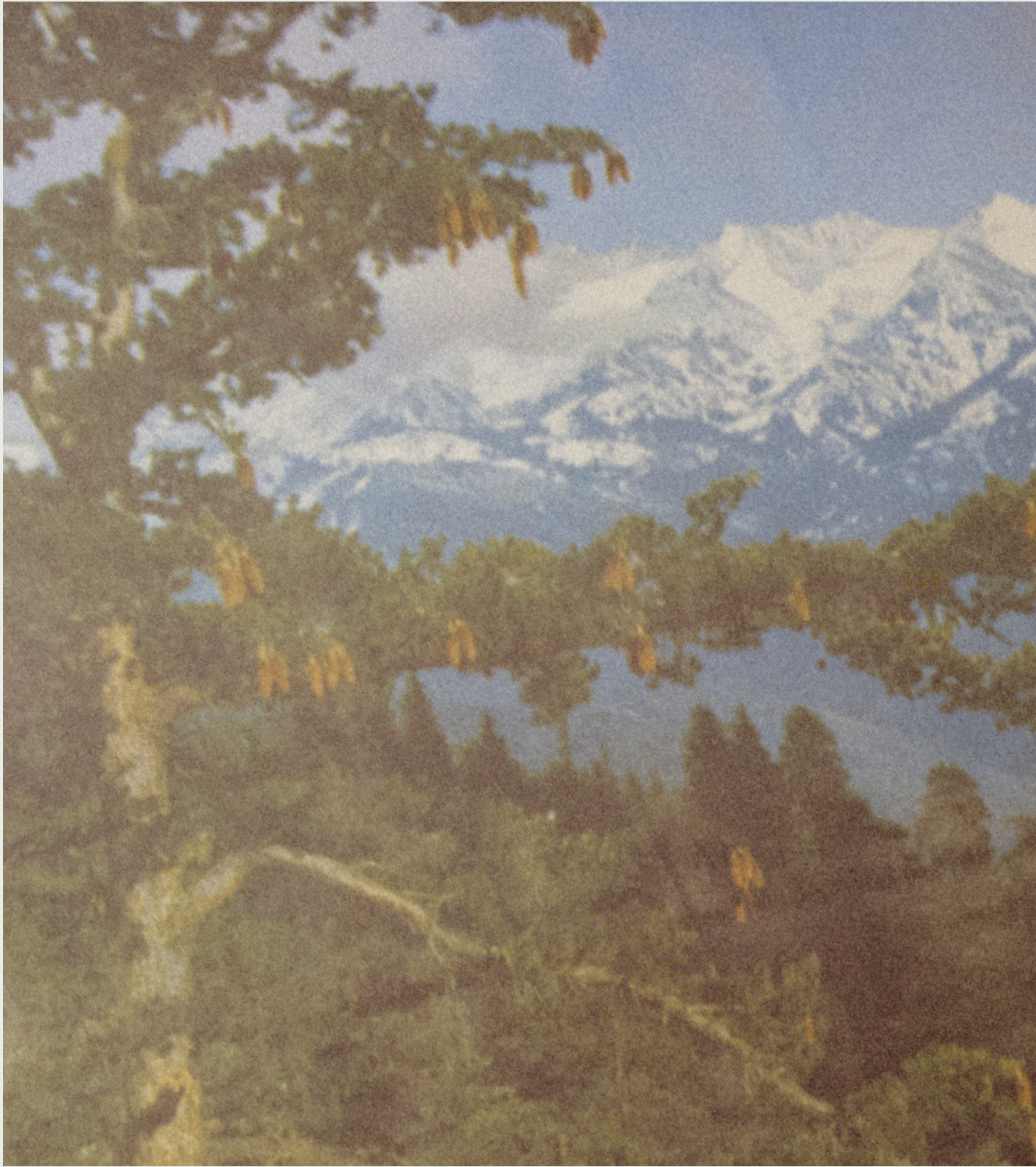
Red is the warmest visual color  
as defined by science.  
Or is it white-blue?  
Or purple?  
Visual to who?  
To what thing?

They say the world is warming.

Warming fast.

Faster than predicted.

Because predictions are precededented.





that it matters what matters we u  
think other matters

That this nature thing matters.

That matter matters.

That it matters what matters  
we use to think other matters.

That this nature thing  
this thing over there  
under there  
up there  
on here  
in here  
matters.

That a matter of degrees matters.

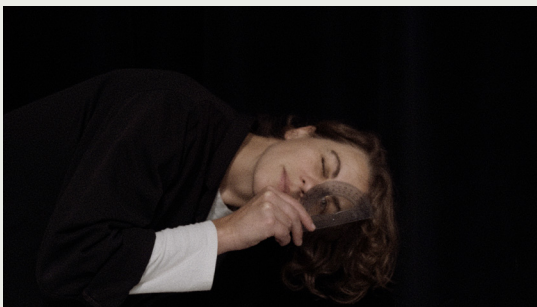
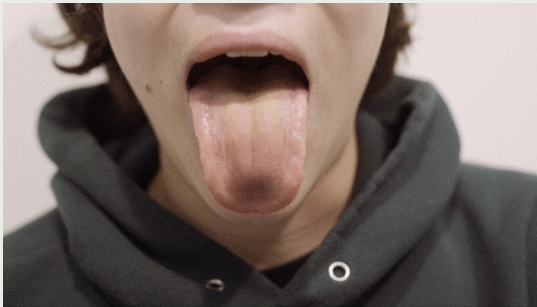
Will warm look different tomorrow  
from today?

Matters get wonky when  
we think about mattering.  
In a world full of matter  
where mattering is regulated  
dominated  
outsourced  
and extracted.

Where mattering is a matter  
of life and death  
of animate or inanimate  
where mattering implodes on itself  
when I look in the mirror.

This thing.

This nature thing.



Thing.

Defined as an object that one  
need not  
cannot  
or does not  
wish to give a specific name to.

Thing.

An inanimate material object  
as distinct from  
a living sentient being.

Example given:  
I'm not a thing  
not a work of art to be cherished.

Thing.

This nature thing.

How do we care about this nature thing?

Care is an interesting term  
an ethical term  
a term that might be  
the point of rotation  
the axis  
the concept to center.

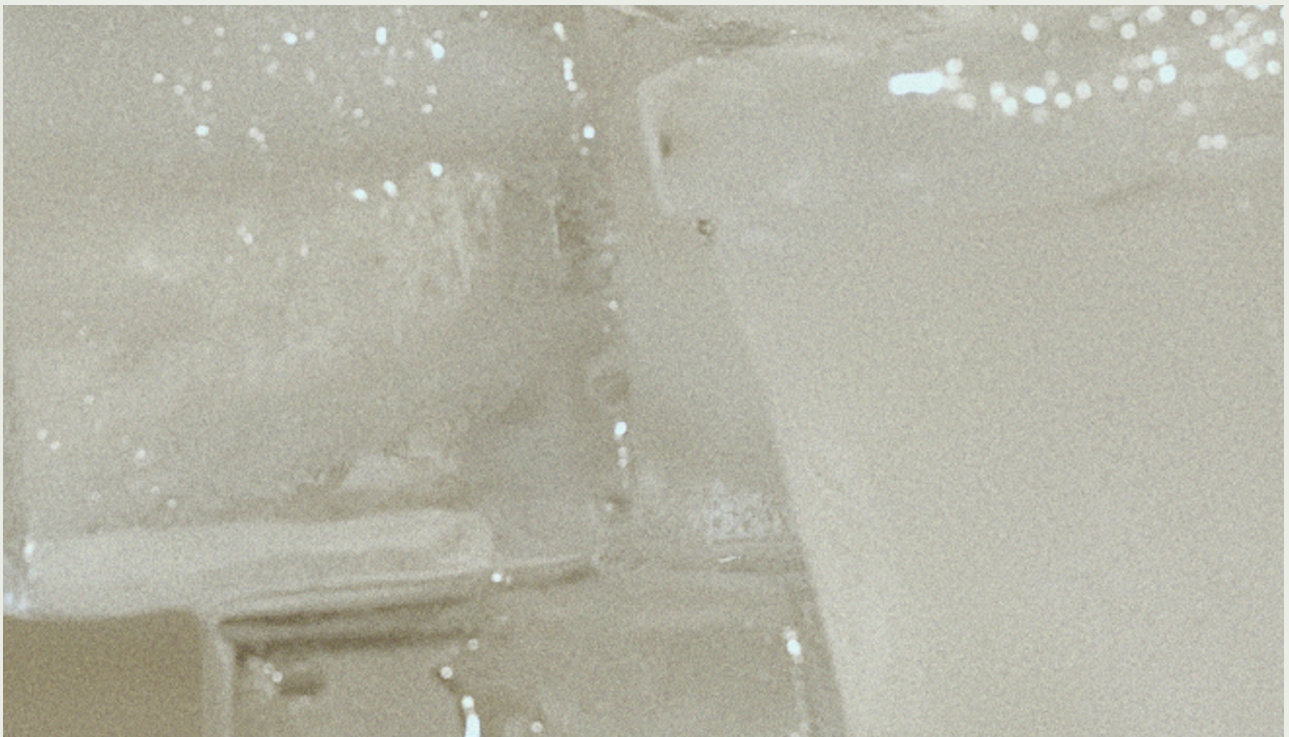
Caring implies connection.

When did we stop seeing the  
connection?









When did this begin?

At some point  
or more accurately  
a collection of many points  
before and after one another...

Was it:  
the beginning of agriculture?  
or the scientific revolution  
or when Columbus was born?  
or in 1610  
or in 1619  
or in 1945  
or yesterday  
when I filled my car up with gas?

When was the beginning of  
this mass delusion?

The great delusion?



I've been obsessed lately with these lists of  
false binaries:  
mind/body  
good/bad  
past/future  
complete/incomplete

A semiotic reduction.

A cascade of questions.

Mind/body.

But things are always lost in translation.

I look up anthropocentrism  
a philosophical viewpoint  
the default in the west.

Man over nature.

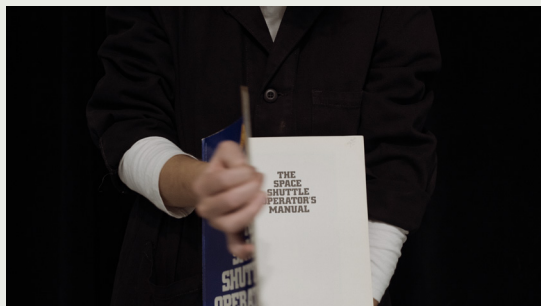
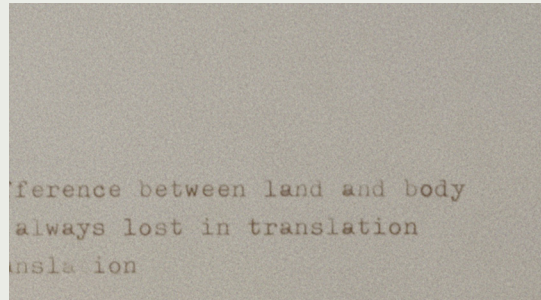
What does warm look like?

Visual to who?  
To what thing?

The cascade of questions.

This nature thing.

Where is this nature thing?  
Over there?  
Under there?  
Beyond the fence?  
Inside the fence?  
Who made the fence?









Interlude:

Let's look with this tree for a moment.

This tree  
has roots  
has seeds.

These seeds are only released with heat  
but not too much heat  
but the balanced heat  
caused by small fires  
like the ones that were  
used in the pre-"new world."

And this tree loves disturbance  
disturbance ecology.

Like it used to get before  
the purity of fences.

This tree is both male and female  
it is non-binary  
this tree refutes time  
and is time  
and displays time  
and was poisoned  
by pesticides  
promoted by petrochemical companies  
the ones invested in making sure  
this nature thing stays a thing.

These trees were planted as ideal crop and resource by the Forest Service a US agency under the Department of Agriculture you know a different agency than the Department of the Interior which handles these nature things like:

Fish and Wildlife Services  
Bureau of Land Management  
Bureau of Ocean Energy Management  
and the Bureau of Indian Affairs.

The cycles  
and circles.

Feedback loops.

This thing.

This nature thing.



Español

[< Index of U.S. Agencies and Departments](#)

- Branches of Government
- Contact Government by Topic
- Elected Officials
- State, Local, and Tribal Governments

## U.S. Department of the Interior

The Department of the Interior manages public lands and minerals, national parks, and wildlife refuges and upholds Federal trust responsibilities to Indian tribes and Native Alaskans. Additionally, interior is responsible for endangered species conservation and other environmental conservation efforts.

### Agency Details

Acronym:	DOI
Website:	<a href="#">Department of the Interior (DOI)</a>
Contact:	<a href="#">Contact the Department of the Interior</a>
Main Address:	1849 C St., NW Washington, DC 20240
Email:	<a href="mailto:feedback@ios.doi.gov">feedback@ios.doi.gov</a>
Phone Number:	1-800-368-3100





Does warm feel different today?

Care, caring, carer  
burdened words  
contested words  
and yet so common in everyday life  
as if care was evident  
beyond particular expertise  
or knowledge.

Care.

Caring.

Carer.

As if we haven't been programed  
to not care.



I've been carrying this weed around with me and I'm not sure why.

Weeds are defined as plants in the wrong place.

According to who?

To what thing?

Examples given:

Poison sumac  
Dandelion  
Crabgrass  
Ragweed  
Bindweed  
Jewelweed  
Tumbleweed

noxious  
invasive  
parasitic

Unwanted in human controlled settings  
such as farm fields  
gardens  
lawns  
and parks.

Who made the fence?

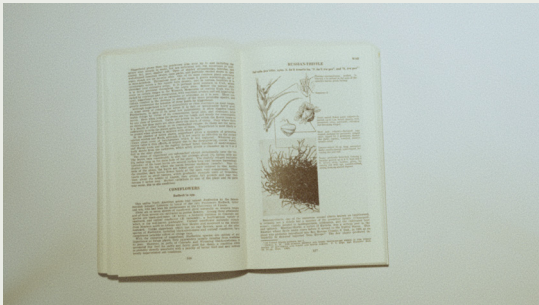
These plants came with settlers  
in bags of flaxseed.

They love disturbance  
disturbed land  
like the land of manifest destiny  
and nuclear testing sites  
and

the warming.

Each plant spreads 250,000 seeds  
as it rolls around.

This nature thing.



These weeds are everywhere in the  
American imagination:

freedom  
individualism  
survival of the fittest  
wide open spaces  
opportunity  
rugged  
daring  
pull yourself up by your bootstraps  
frontier myth.

I grew up picking these weeds by hand.

Under mountains named after men  
Moran  
Bierdstat  
Kit Carson  
you know the guys.

I grew up within the frontier myth.

Myth  
a widely held  
but false belief or idea.

The weeds roots are strong and deep.

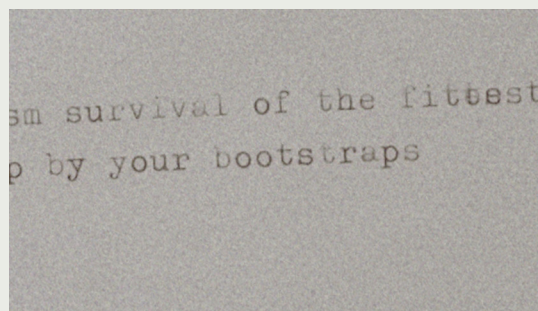
Sometimes it would take  
falling over backwards  
to yank them from their place.

A few years ago  
a strange phenomena occurred.

They call it tumbledeggon.

30 foot waves of tumbleweeds  
overtook cars and homes.

Those rescued said  
"normally you can drive  
right through them."



leweedtumble  
leweedtumble  
bleweedtumble  
28 mbleweedtumble  
leweedtumble  
mbleweedtumble  
tumbleweedt

vee d tumb lewe  
vee d tumb lewe  
wee d tumb lewe  
wee d tumb lewe  
vee d tumb lewe  
wee d tumb lewe  
wee d tumb lewe  
wee d tumb lewe

...systems, however, changes in size structure may be the largest fish were due to shifting taxonomic composition or due to catch or reduction in size within groups. Analyses based on these nontraditional data sources offer a baseline size structure for a time period for which there are no quantitative fisheries catch data.

**Methods**

I quantified changes in size structure of reef fish communities over the last 4 decades (1960-2000) with photographs taken from the recreational fishing industry in an atoll area. I used historical photographs to determine the size structure of reef fish communities in 1960 and 1970. I then used photographs taken in 1990 and 2000 to determine the size structure of reef fish communities in 1990 and 2000. I then compared the size structure of reef fish communities in 1960 and 1970 to the size structure of reef fish communities in 1990 and 2000. I found that the size structure of reef fish communities in 1990 and 2000 was significantly smaller than the size structure of reef fish communities in 1960 and 1970. This suggests that the size structure of reef fish communities has shifted over time, and that the largest fish were due to shifting taxonomic composition or due to catch or reduction in size within groups.



Normally.  
When is normal?

Shifting baseline syndrome is defined as the inability to see change from within change.

Like the fishermen that keep smiling even though their fish are smaller.

This nature thing.

It takes 40 years for the carbon dioxide emitted to start affecting climate systems.

That's a reductionist statement but still true.

1982 becomes today  
today becomes 2062.

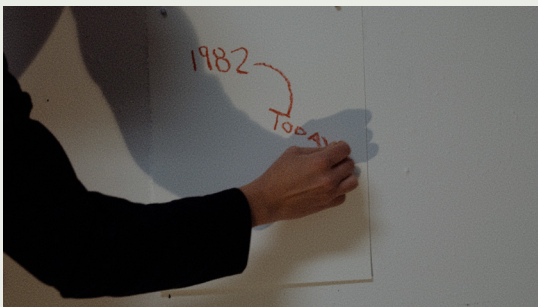
A time when we must queer time.

When future becomes today  
and today becomes.

They say the world is warming  
warming fast.

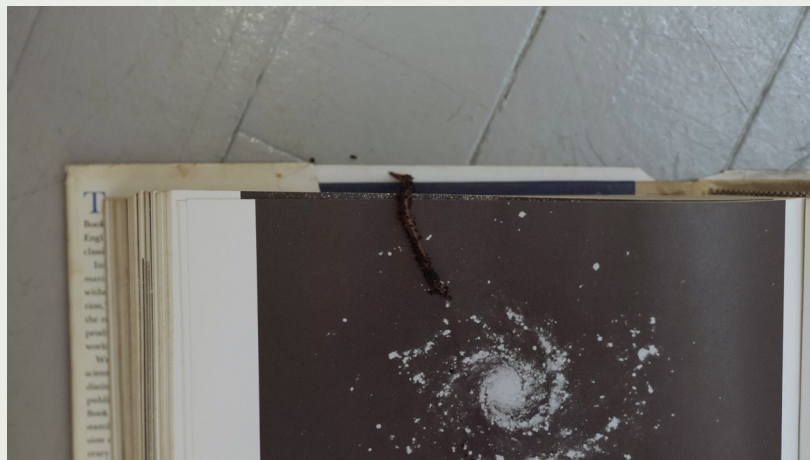
Faster than predicted.

Because predictions are preceded.



Cartesian maps decentered a body.

Are we ready to be decentered?













Works Cited:

(flipped and in reverse order)

- Stum, Aman, et al. "Towards the 'Angible Unknown': Decolonization and the Indigenous Future." *Decolonization: Indigeneity, Education & Society*, vol. 1, no. 1, 2012.
- Smalibegovic, Ada. *Poetics of Livelihood*. Columbia University Press, 2021.
- Sze, Julie. "Scale." *Keywords for Environmental St*, New York University Press, pp. 178-80.
- Talibear, Kim. "Why Interspecies Thinking Needs Indigenous Standpoints." *Society for Cultural Anthropology*, Nov. 2011, <https://culanth.org/fieldsights/why-interspecies-thinking-needs-indigenous-standpoints>.
- Taylor, Dorceta. *The Rise of the American Conservation Movement: Power, Privilege, and Environmental Protection*. Duke University Press, 2016.
- Thompson, Nato. *Seeing Power*. Melville House Publishing, 2015.
- Tsing, Anna, et al., editors. *Arts of Living on a Damaged Planet*. Tsing, Anna, and Donna Haraway. *Tunneling in the Chthulucene*. <https://www.youtube.com/watch?v=FkZSh8wb-t8>. Moscow, Idaho.
- Tsing, Anna L., et al. *Feral Atlas: The More-Than-Human Anthropocene*. Stanford University Press, 2020. DOI.org (Crossref), <https://doi.org/10.21627/2020fa>.
- Tuck, Eve, and K. Wayne Yang. "Decolonization Is Not a Metaphor." *Decolonization: Indigeneity, Education & Society*, vol. 1, no. 1, 2012, p. 40.
- Vince, Gata. "The Heat Is on over the Climate Crisis. Only Radical Measures Will Work." *The Guardian*, 2019, <https://www.theguardian.com/environment/2019/may/18/climate-crisis-heat-is-on-global-heating-four-degrees-2100-change-way-live>.
- Westervelt, Amy. *Climate One Collaboration: Breaking Down Climate Misinformation*. <https://www.drilledpodcast.com/>.
- Weston, Kath. *Animote Planet*. Duke University Press, 2017.
- Whyte, Kyle Powys. "Indigeneity." *Keywords for Environmental Studies*, New York University Press, 2016, pp. 143-44.
- , editor. "Is It Colonial Deja Vu? Indigenous Peoples and Climate Injustice." *Humanities for the Environment: Integrating Knowledge*, <https://doi.org/10.4324/9781315642659>.
- . "Time as Kinship." *The Cambridge Companion to Environmental Humanities*, Cambridge University Press, 2021, pp. 39-55.
- Yusoff, Kathryn. *A Billion Black Anthropocenes or None*. University of Minnesota Press, 2018.
- . *Geo-Logics: Natural Resources as Necropolitics*. <https://www.youtube.com/watch?v=Qm8B-XZG80Q>. Harvard GSD.

- Libbiron, Max. *Pollution Is Colonialism*. Duke University Press, 2021.
- MacFarlane, Robert. *Underland*. W.W. Norton & Company, 2019.
- Marshall, George. *Don't Even Think About It*. Bloomsbury Publishing, 2014.
- McClintock, Loren. "Documenting Loss of Large Trophy Fish from the Florida Keys with Historical Photographs." *Conservation Biology*, vol. 23, no. 3, June 2009, pp. 636-43. DOI.org (Crossref), <https://doi.org/10.1111/j.1523-1739.2008.01152.x>.
- McClintock, Anne. "Too Big to See with the Naked Eye." *Guernica*, no. December 20, 2012, <http://www.guernicamag.com/daily/anne-mcclintock-too-big-to-see-with-the-naked-eye/>.
- McClintock, Katherine. *Dear Science and Other Stories*. Duke University Press, 2021.
- Morton, Timothy. *All Art Is Ecological*. MIT Press, 2018.
- . *The Hyperobject*. University of Minnesota Press, 2013.
- Murphy, Michelle. "Alterlife and Decolonial Chemical Relations." *Cultural Anthropology*, vol. 32, no. Nov, 2017, pp. 494--503.
- Nixon, Rob. *Slow Violence and the Environmentalism of the Poor*. Harvard University Press.
- Parker, Cornelia. *Mass. Installation*, 1997.
- Plumwood, Val. *Feminism and the Mastery of Nature*. Routledge, 1993.
- Puj de la Bellacasa, Maria. *Matters of Care: Speculative Ethics in More Than Human Worlds*. University of Minnesota Press, 2017.
- Purdy, Jedediah. *After Nature*. Harvard University Press, 2018.
- Richards, Richard, et al. "The 1.5 Degree Goal: Beware of Unintended Consequences." *Yale Climate Connections*, 2022, <https://yaleclimateconnections.org/2022/01/the-1-5-degrees-goal-beware-of-unintended-consequences/>.
- Ross, Alex. "The Naysayers: Walter Benjamin, Theodor Adorno, and the Critique of Pop Culture." *New Yorker Magazine*, 2014, <https://www.newyorker.com/magazine/2014/09/15/naysayers>.
- RubberMade: *Sculpture by Chakala Booker*. Kemper Museum of Contemporary Art, 2008.
- Salmon, Enrique. "Kincentric Ecology: Indigenous Perceptions of the Human-Nature Relationship." *Ecological Applications*, vol. 10, no. 5, Oct. 2000, pp. 1327-32.
- Shotwell, Alexis. *Against Purity*. University of Minnesota Press, 2016.
- Shotwell, Alexis, and Heather Houser. *Cultures and Media of Environmental Health*. <https://www.youtube.com/watch?v=h6tjysZWC08>.
- "Planet Now!" *Conversation in Environmental Studies*, Rice University.
- Singh, Julietta. *Unthinking Mastery: Dehumanism and Decolonial Entanglements*. Duke University Press, 2018.

- Davis, Heather, and Etienne Turpin, editors. *Art in the Anthropocene*. Open Humanities Press, 2015.
- De La Cadena, Marisol, and Mario Blaser, editors. *A World of Many Worlds*. Duke University Press, 2018.
- Demos, T.J. *Decolonizing Nature: Contemporary Art and the Politics of Ecology*. Sternberg Press, 2016.
- Diaz, Natalie. "The First Water Is the Body." *Postcolonial Love Poem*, Graywolf Press, 2020, pp. 46-52.
- Fulton, Alice. "Shy One." *Cascade Experiment*, W.W. Norton & Company, 2005, pp. 59-60.
- Ga, Ellie. *The Fortunetellers*. Live narration, video, slide and overhead projections, recorded sound, 2011, <https://elliega.info/The-Fortunetellers-1>.
- Ghosh, Amitav. *The Great Derangement*. The University of Chicago Press, 2016.
- Goulson, Dave. *Silent Earth*. Penguin Random House, 2021.
- Haraway, Donna. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies*, vol. 14, no. 3, 1988, pp. 575-99. JSTOR, <https://doi.org/10.2307/3178066>.
- . *Staying with the Trouble*. Duke University Press, 2016.
- Henrot, Camille. *Gross Fatigue*. Video, 2013.
- Hornby, Louis. "Appropriating the Weather." *Environmental Humanities*, vol. 9, no. 1, May 2017, pp. 60-83.
- Houser, Heather. *Infowhelm: Environmental Art and Literature in an Age of Data*. Columbia University Press, 2020.
- Jarvis, Brooke. "The Insect Apocalypse Is Here." *New York Times Magazine*, 2018, Br.
- Keller, Catherine. *Facing Apocalypse*. Orbis Books, 2021.
- Kimmerer, Robin Wall. *Braiding Sweetgrass*. Milkweed, 2013.
- Kolbert, Elizabeth. *Field Notes from a Catastrophe*. Bloomsbury Publishing, 2006.
- Kusserow, Karl, and Alan C. Braddock. *Nature's Nation: American Art and Environment*. Yale University Press, 2019.
- Lanham, J. Drew. "Blinder to Blinder." *Emergence Magazine*, 2022, <https://emergencemagazine.org/essay/blinder-to-blinder/>.
- Lee, SungHa, et al. "Emotional Wellbeing and Gut Microbiome Profiles by Enterotype." *Nature*, Nov. 2020, <https://www.nature.com/articles/s41598-020-77673-z.pdf>.
- Leiserowitz, A., et al. *Climate Change in the American Mind*, March 2021. Yale University and George Mason University, 2021.

- Agamben, Giorgio. *The Open: Man and Animal*. Stanford University Press, 2004.
- Albrecht, Glenn. *Earth Emotions*. Cornell University Press, 2019.
- Anderson, M. Kat. *Tending the Wild*. University of California Press, 2005.
- Aronczyk, Melissa, and Maria I. Espinoza. *A Strategic Nature: Public Relations and the Politics of American Environmentalism*. Oxford University Press, 2022.
- Barad, Karen. *Meeting the Universe Halfway*. Duke University Press, 2017.
- Battle, Colette Pinchon. *Placed Here in This Calling*. 3 Mar. 2022, <https://onbeing.org/programs/colette-pinchon-battle-placed-here-in-this-calling/>.
- Bennett, Jane. *Vibrant Matter: A Political Ecology of Things*. Duke University Press, 2010.
- Bladow, Kyle, and Jennifer Ladino, editors. *Affective Ecocriticism*. University of Nebraska, 2018.
- Blaffer Gallery. *Existed: Leonardo Drew*. D Giles Limited, 2009.
- Blazwick, Iwona. *Cornelia Parker*. Thames and Hudson, 2013.
- Cajete, Gregory. *Native Science: Natural Laws of Interdependence*. Clear Light Publishers, 2000.
- Carson, Rachel. *Silent Spring*. Mariner Books, 2002.
- Castree, Noel. "Nature." *Keywords for Environmental Studies*. New York University Press, 2016.
- Cheetham, Mark. *Landscapes into Eco Art*. The Pennsylvania State University Press, 2018.
- Chen, Mel. *Animacies: Biopolitics, Racial Mattering, and Queer Affect*. Duke University Press, 2012.
- Cole, Diane, and Samantha Frost, editors. *New Materialism: Ontology, Agency, and Politics*.
- Crary, Jonathan. "Techniques of the Observer." *October*, vol. 45, 1988, p. 3. DOI.org (Crossref), <https://doi.org/10.2307/779041>.
- Cronon, William. "The Trouble with Wilderness; or, Getting Back to the Wrong Nature." *Uncommon Ground: Rethinking the Human Place in Nature*, W.M. Norton & Company, 1995, pp. 69-90.
- Cwynar, Sara. *Glass Life*. Aperture, 2021.
- . *Soft Film*. 16mm film, 2016.
- Davis, Heather. *Decolonizing the Anthropocene*. <https://www.youtube.com/watch?v=b7JxBc172No>. Ruderical Ecologies, McGill University.

## Acknowledgments:

Special thanks to my committee members Anne West, Nicole Merola, and Laine Retimer, who believed in this work before I did. Your insight, wisdom, guidance, phrasing, and scholarship saturate these pages.

Thank you to Patrick Kelly and Mercy Carbonell. Your nourishment and laughter renewed my spirit throughout this process.

Thank you to Stanley Wolukau-Wanambwa, Brian Ulrich and Steve Smith for your continued support, artistically, professionally, and academically.

Thank you to Alex Strada. Your lessons continue to reverberate.

Thank you to my peers. This is just the beginning.









I'm thinking about tipping points, watershed moments, paradigm shifts, and critical points, when a solid becomes a liquid, when the form changes altogether.

When do these transformation events occur?

The questions resurface:

I wonder, when does a stream become a river? When does a trickle become a cascade? When does a pile of dust become a loess?

When do plants begin to grow in the loess?<sup>70 71</sup>

70 When does the transformation begin?  
71 Complete/incomplete

Towards Another Form(ation)

We don't write this as a conclusion because the end of the story hasn't been written and, in truth, the story isn't even linear in that way.

-Aman Stum, Chandni Desai, Eric Risckes, "Towards the 'tangible unknown'"

Let me "conclude" this essay by pointing to the beginning term

"Loss". It is a term, idea, and physical reality that I am actively engaging with, without summation or conclusion (yet?). Within this essay, the engagement with loss resides at the edges of this porous mound of essays, artwork, questions, and other particulates. The mound of essays and artwork, as an example of my practice, is ever-evolving. I am trying to learn from loss, not just the metaphor, but the very real ground formation.

Loss, as I read the word, is so close to loss. I don't think you can look at the realities of climate change without experiencing great loss. Lawyer and environmental justice activist Collette Battle in a recent interview said:

To admit climate—to really, really admit that you understand what is happening to the planet—it will break your heart. If you don't cry deep, hard tears for the state of this planet and all of the people on it, you don't yet understand the problem. And once you get to that place, the only thing that can bring you out of that kind of darkness is belief in something greater than yourself.<sup>69</sup>

This encounter with loss has changed me. It is why I came to RISD in the first place. To attempt to communicate the impossible. I turn to art because it becomes an act of processing the loss, opening up the conversation, and in believing in something greater than myself. That there is power in gathering.

It has indeed been that for me.

I'm learning to trust artwork to expose the entanglements that are beyond summation. I believe that, by engaging in the material act of making, we\*, as artists, are helping to invite speculative futures into being. That in the act of making-with material, in honoring the earthly material we are entangled with, we\* are engaging in a more-than-human conversation. Even if these are (just) mental exercises, I do believe that art paves the way for different realities; it is a place to work out the unspeakable terrain, where there isn't language yet; that art can be a point of social and material transformation.

despair and hope.<sup>89</sup>

and control, between the "overstated and the unspeakable," between with and wrestle with the space in-between loss and beauty, care of the world, that I turn to artwork. To reveal, explore, spend time It is here between the binary of the end of the world and the future

## An Entangled Transformation

There's a famous idiom within climate change discourse communities, that it's easier to imagine the end of the world than it is to imagine the end of capitalism. This, for me, is a problem of imagination.

As we begin to dissolve the Cartesian binaries and perceptual divide of nature and body and its concomitant modes of thinking, we begin to see possibilities. Between the binaries, lies a spectrum of relationships, pluralities, and multiplicities. It is an opportunity to invite radical social justice. This can't be a passive engagement however, it requires an active, all or nothing shift.<sup>69</sup> Much like the problem, the solutions are also entangled.

The climate crisis, as an entangled and wicked problem, will require coalitions across disciplines, across ages, and across species. It requires coalitions across time, of seeing both our past and our future. It will require a re-membering of our place within the ecosystem, now, before, and after.<sup>66</sup> It will require a lot of honest, messy conversations.

I recently read that the Greek word *Apokalypsis*, literally means "removal of the veil." This is unlike the "doomsday apocalypse" narrative within the ecological discourse. Thinking through apocalypse with this new definition, embracing it even, might just reveal worlds of possibility.<sup>67</sup> Let's spend some time imagining those possibilities.

- 65 T.J. Demos states "we cannot address climate justice adequately without also targeting the corruption of democratic practice by corporate lobbying, or the undermining and failure of public transportation systems, or Indigenous rights violations by industrial extractivism, or police violence and the militarization of borders." *"Decolonizing Nature"*, 12.
- 66 Re-membering points to the recognition that the world we inhabit, including our body, is a multi-species site. It is a multi-being site. We must somehow remember that there are many members of our community.
- 67 See *Facing Apocalypse* by Catherine Keller. She continues to explain that the term "means not closure, but dis-closure—that is, opening." To state again, that the removal of the veil, apocalypse, is actually an opening, not an ending, xv1.

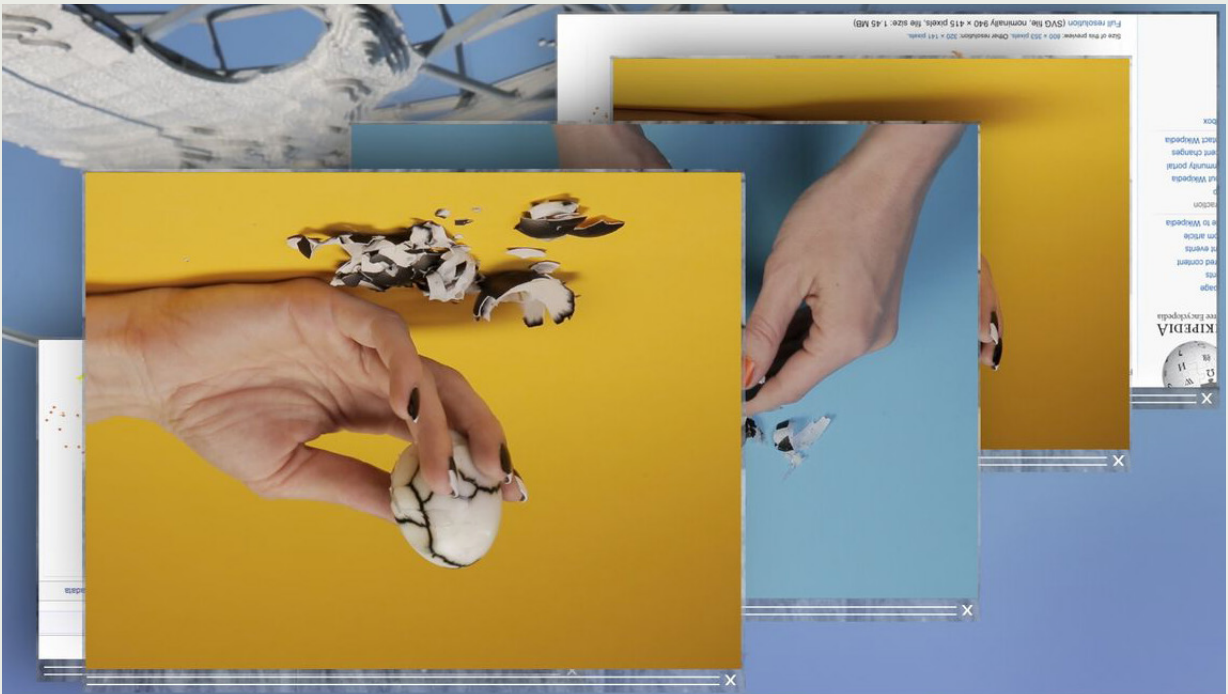
Camille Henrot (b. 1978) is a French artist and director. Her 2013 film *Gross Fatigue* was made during a residency at the Smithsonian Institution where she dove into available archives and collections. With a wide-ranging research base that includes philosophy, anthropology, and history, Henrot used this research as a raw material in the film. The narration is expansive and like Sara Cwynar's work provides a visual essay as the viewer is taken from the "beginning" of history into an expansive present. By using the Smithsonian Institution's building and collections as the location and subject of the film, Henrot is using research as a material, both physically and conceptually.

Henrot has described the work as an "intuitive unfolding of knowledge" that is meant to point to both the abundance of our knowledge in modern culture as well as the limits of current frameworks of knowledge.<sup>64</sup> In this way, I think of Henrot's video as an example of embodied knowledge where the intellectual, physical, emotional, and spiritual converge.

These three artists, in using research as a primary material, make their academic worlds accessible for engagement and contemplation. Their scholarship, through affect, becomes an embodied experience. Facts, no longer sit on a page to be read, they are felt through auditory and visual engagement. Furthermore, through temporal pairings and layers, the research becomes intertwined, revealing connections that might not be found in textbooks. As I attempt to enliven climate data and visualize unseen connections, these artists become important teachers for how to engage with climate research through affect.



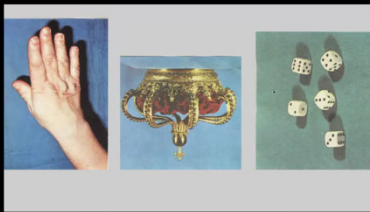
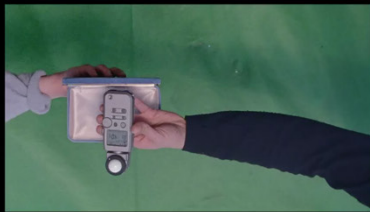
Camille Henrot, *Grosse Fatigue*, 2013, 13 min., video still.



Sara Cwynar (b. 1985) is a photographer, video, and book artist that explores embedded systems of power through a critique of visual culture and design. Her three-part video series explores ideas of sexism, capitalism, and the formation of desire. Each video takes the form of a visual essay where Cwynar's research becomes apparent both through visual references and by way of her narration. The script, Cwynar has said, is compiled of fragments from a research essay. The final script of 8 or so pages was condensed from hundreds of pages of writing. For example, a line that reads "B. calls them 'alienated things'" is referencing Walter Benjamin's study of the shopping arcades within commodity culture. This is a direct reference to Benjamin's quote that "with the vitiation of their use value, the alienated things are hollowed out and, as ciphers, they draw in meanings." While this quote is not directly provided in the video, it is in the book form of the work where the transcript is annotated by Cwynar.<sup>63</sup> Even without the direct textual reference in the video though, Cwynar is providing research for the viewer and through visual references, allowing the research to be materialized and understood, even if differently from the original intent. The viewer may comprehend what is at the heart of Cwynar's interpretation of the quote through visual and auditory experience, without having to read Benjamin directly. This, even if in a small way, makes academic research accessible to a wider audience.

The sense of humor present in Cwynar's work is an important marker for the tone of the piece. The humor allows the heaviness of the topics at hand to wash over you, penetrate your psyche even, because your guard is down. As a viewer, I learned a great deal from Cwynar's work, leaving with a list of theorists to look into and intrigued by the quotes Cwynar shared. I also left with an emotional experience. By placing academic research in this altered medium of video, I encountered academic theory *differently*. I had an embodied and emotional experience to the text that was quite different than reading it on a page or listening to a lecture. Cwynar made the theory come alive.

Sara Cwynar, *Soft Film*, 2016, 16 mm film, 6 min. 28 sec, promotional poster.



## Artist(s) Case Study: Research as Material

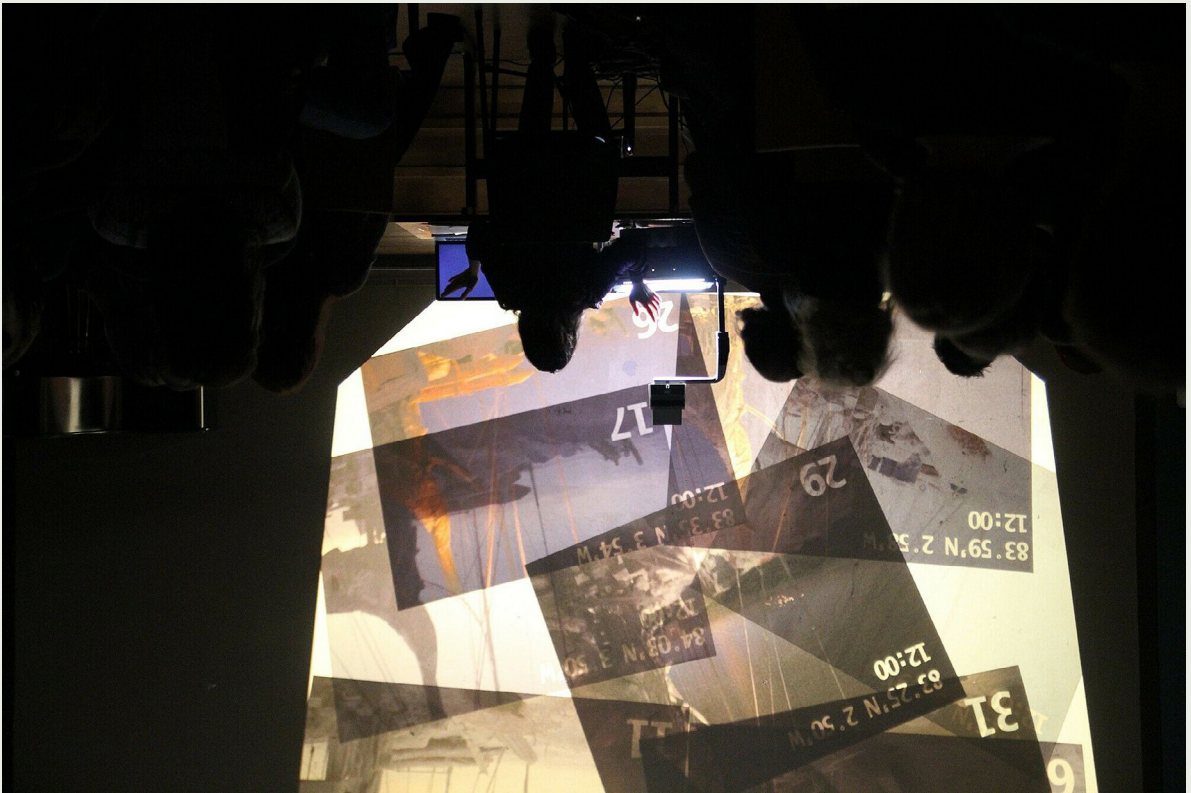
Video and performance artists such as Sara Cwynar, Camille Henrot, and Ellie Ga are important contemporary artists that use their research as artistic material. While most artists have a deep pocket of research that informs their work, these artists bring the research to the forefront.

### Ellie Ga

Ellie Ga (b. 1976) is an American artist, writer and performer. Like Camille Henrot and Sara Cwynar, Ellie Ga makes narrative videos and installations that highlight her research practice. In what she calls lecture performances, Ga takes the viewer on a journey interjecting her research with the visual encounter. For example, in *The Fortunetellers*, Ga takes fields of philosophy, archeology, and mythology and interweaves this material with the visual performance. Moving between travelogue, artist lecture, and historical narrative, *Fortunetellers*, which was made during a residency aboard a research sailboat in the Arctic, embraces exploration as a method and concept. The narrative seems to be exploring new performance territory, allowing for gaps, dead ends, and surprising turns. The viewer is left with a porous knowledge base, one with logical leaps that seem to be filled with personal anecdotes, sketches, and observations. This interplay between "objective analysis and subjective imagination" blurs the boundaries between knowledge systems, revealing an altered understanding.<sup>62</sup> Ga's emphasis on exploring new methods in order to discover new forms of understanding is something I hope to bring to my own artwork and practice, intertwaving climate research with new exploratory methods of engagement.

62 These descriptions are from The Guggenheim's artwork description: <https://www.guggenheim.org/artwork/artist/ellie-ga>

Ellie Ga, *Fortune Tellers*, 2011, performance running time: 1 hour, performance still.



60 I think about human exceptionalism as an extension of human hierarchies put in place by colonialism where white settlers were at the apex of exceptionalism. Thus, my comments about human exceptionalism are grounded in recognizing racial and social hierarchies.

61 Enrique Salmon's *Kin-centric Ecology* is an important reference here. Salmon highlights that a kin-centric ecology sees things in relation as opposed to in-hierarchy where human exceptionalism results in human-apexed ecologies.

The last scene of the film highlights the need to move from a human-centered concept of the universe to a more-than-human centered ecology. T.J Demos summarizes this in *Decolonizing Nature* by stating "climate change is the best motivation for a 'Great Transition,' which will require a systemic shift in reorganizing social, political, and economic life, in order to bring us into greater harmony with the world around us, including its human and non-human life-forms" (12). The ending narration that posits "Cartesian maps decentered a body, are we ready to be decentered?" "references this call for the "The Great Transition," or a paradigm shift that would decenter human-exceptionalism. Just as the Copernican Revolution repositioned the earth from the center of the universe into relationship with other planetary bodies, this last line asks us to see humanity, not as a separate or centering force in which everything else rotates around, but in relationship with other more-than-human beings and bodies.

*The Great Delusion* script represents a particular moment of my research. This project is likely the beginning of a series, with each film having its own time stamp and particular assemblage of thinkers and ideas. "To be continued" is the ending slide of the film and points to the unfinished nature of the climate crisis and my own ongoing process-ing within it.

For example, the clip that begins with the narration "I look up west" is accompanied by a visual of me holding up a manual about living in outer space. This pairing signifies the current proposed climate change solutions where techno-fixes, green capital, and space colonization reign.<sup>60</sup> These proposed solutions are an extension of human exceptionalism in general terms, but even more poignantly for the benefit of a privileged and mostly Caucasian population that depends on current systems of power and hierarchy. I'm interested in decentering human exceptionalism as a way of placing humankind back into a balanced cycle of ecology, where we\* are one part of an inter-dependent ecosystem.<sup>61</sup>

Beth Johnston, *The Great Delusion*, 2022, video still.



other vegetation to wait for the warm-blooded animal to pass by. For  
 Dekkall, this is not a deficit in sense, but rather, represents an  
 alternate world of perception.<sup>56</sup> In this work, I am wondering about  
 the limits of my perception, not only as a human, but as a descendent  
 of western settlers. What is my inherited blindness? These are the  
 types of questions I am wrestling with in this video, but I don't  
 name them for the viewer. Rather I let these comments stand with some  
 ambiguity to allow the viewer to experience their own associations.

The title of the work, *The Great Delusion*, references Amitav Ghosh's  
 book *The Great Derangement* which has been extremely influential for  
 my thinking within the climate crisis. In this book, Ghosh sets out  
 to investigate the unthinkable nature of climate change. He wonders  
 throughout the pages, "are we deranged?" He argues that "future  
 generations might think so".<sup>57</sup> Here, Ghosh is highlighting the  
 problem with our imaginative and perceptual worlds that, along with  
 complicated histories that have produced current political and social  
 realities, keep us from adequately acting in the face of climate  
 change.

There is also a question of animacy throughout *The Great Delusion*.  
 Ghosh begins the book by asking "Who can forget those moments  
 when something that seems inanimate turns out to be vitally, even  
 dangerously alive?"<sup>58</sup> For me, this brings up theories of animism and  
 new materiality, which question ideas of human exceptionalism that  
 imply a human apexed form of "life" and ecology. The terms by which  
 something is deemed animate relies on human values and perceptions.  
 Within western culture, animacy is a narrow category containing  
 humans and animals. Animism and new materiality, on the other hand,  
 extend the category of animacy to plants, rocks, and other objects  
 that might usually be classified as inanimate.<sup>59</sup> In a time when  
 human exceptionalism and hierarchies of domination saturate western  
 culture, I think some rebalancing of what we deem animate is needed,  
 to say the least. As Jane Bennett highlights in her book *Vibrant  
 Matter*, in a time of ecological collapse, anthropomorphizing is a  
 necessary form of re-calibration and can be a helpful tool for re-  
 imagining healthy and just futures for all.

Issues regarding the limits of western notions of human-  
 exceptionalism, or anthropocentrism, are highlighted in the video.

- 56 See Giorgio Agamben, *The Open: Man and Animal*, 39-48 and Ada  
 Smallbego's *Poetics of Liveliness*, 5.  
 57 See the book's description on The University of Chicago Press  
 website: <https://press.uchicago.edu/ncp/books/book/chicago/G/bo22265507.html>  
 58 See *The Great Derangement*, 3.  
 59 For more on animism, see Mel Chen's *Animacies: Biopolitics, Racial Mattering, and Queer Affect*.



Beth Johnston, *The Great Delusion*, 2022, video still.



Work Analysis: The Great Delusion

Medium: Video

The Great Delusion is a time-based video that summarizes much of my research on the climate crisis.

The video depicts a number of nature-themed items in a studio space under harsh lighting. The items range from a rock to maps of outer space. The voiceover and visuals are fragmented and temporally layered to reference how climate knowledge is formed. The repeating question of "what is this nature thing?" "referenc[es] my research on concepts of nature as it relates to the complexities of climate change. The repeating question lands with a sense of absurdity. Humor is an important element of the film, allowing the hard topics of climate change to percolate without being too heavy. I'm trying to find the space between "too serious" and "not serious enough" as a way to incorporate the climate data encounter without invoking paralysis. The mock-essay format, in this case, is one form through which I'm trying to articulate this affective tension.

The script for this work was formed during what I describe as a mental exhale. I was frustrated. Presenting photographs of "nature" seemed to be quickly dismissed or put into a neat category of environmental art. The research on decolonizing nature, perception, time, and climate data felt like an important layer to the artwork I was making but I didn't know how to incorporate or communicate it to the viewer. Encountering videos by artists like Sara Cwynar, Camille Henrot, and Elise Ga, who allowed their research to take center stage, gave me license to embrace my own research as the main raw material for this video.<sup>55</sup>

The narration summarizes much of my research, though it isn't spoken in a way that is expostory. Ideas of animism, posthumanism, new materiality, decolonizing nature, queer ecology, queer time, nature studies and environmental justice are all smashed into this 8 minute film. The film raises more questions than it provides answers for, as the narration and visuals move between the didactic and the ambiguous. There are many points where research is presented but without any context or explanation. For example, the line which reads "This thing, I'm told, has life, is life, is more alive than you inhaled-blind life" is informed by reading about Jacob von Uexküll's concept of the "umwelt." In short, the umwelt, a German word for the environment, is the perceived world by a particular organism. The perceptual world of the tick, for instance, consists of only three senses: the smell of mammal's sweat (butyric acid), the temperature of warm blood (37 Degrees Celsius), and sensitivity to the sun (light) which helps orient them to the top of grass and

Beth Johnston, *The Great Delusion*, 2022, 8 min 10 sec, video still.







51 Noel Castree's essay titled "Nature" quotes and builds off of Williams' scholarship. See both Noel Castree and Raymond Williams' essays in *Keywords for Environmental Studies*.

52 See Kyle Powys Whyte's essay "Is This Colonial Deja-Vu?"

53 See de la Cadena's book *A World of Many Worlds*.

54 Elizabeth Kolbert's book *Under a White Sky*, explores many of these projects, often highlighting their unintended consequences while wrestling with the question of what is the role of humans to undo harm through technology, if possible.

From within the climate crisis, how we think about nature, has continued ramifications for maintaining systems of power. Socialist Raymond Williams, points out that the term "nature" is one of the most complex terms in Western thought. Nature, he says, is a polysemic, and polyreferential signifier that, whether the term is used or not, points to hegemonic ideas of race, sex, biodiversity, genes, wildness, animals, environment, and many others.<sup>51</sup> How we think about nature matters.

What we call the climate crisis is a part of the continuation of colonial land/nature control and extraction. This is not a new existential crisis for those that were colonized. As Kyle Powys Whyte points out, for the non-colonizer, this is *deja-vu*.<sup>52</sup> Or as Peruvian anthropologist Marisol de la Cadena states "now the colonizers are as threatened as the worlds they displaced and destroyed when they took over what they called *terras nullius*."<sup>53</sup> This is an ongoing apocalypse for many.

As climate catastrophe escalates, there is a resurgence of mastery control mechanisms thinking.<sup>54</sup> Everything from cloud seeding to carbon capture. Man will overcome nature once again, seems to be the lifeline of hope. But I ask, is this not the continuation of a fatal pattern where nature continues to be objectified and mastered for the benefit of a few?

- 48 See "Decolonizing the Anthropocene" lecture.
- 49 See Dorceta Taylor's book *The Rise of the American Conservation Movement: Power, Privilege, and Environmental Protection* and Jeddiah Purdy's book *After Nature* for more on this.
- 50 For an account on how Indigenous nations cared for and with the land for thousands of years see *Tending the Wild* by M. Kat Anderson.

This mastery thinking extends to the colonization of North America as settlers "conquer" nature, land, and the inhabiting people. Scholar Heather Davis, points out that settler-colonialism, as distinct from other forms of colonialism, is uniquely about the land.<sup>48</sup> Specifically, it is about the settlement, extraction, ownership, and control of land. As the extraction of land continued, labor needs increased, thus enslaved Africans became a necessary part of the settler-native-slave equation. As settlers claim land, they must also erase those connected to the land. This not only results in the genocide of people, but a genocide of the cultural belief systems which included animate land and nature relations. Ghosh explains that as the need for control of the natural landscape grew, the need to cut ties with the "land imagination" also grew. Thus, the mind and imagination were separated from the earthly body.

The legacies of colonizing nature continue today. Environmental sociologist Dorceta Taylor and legal scholar Jeddiah Purdy point to environmentalism's roots in white supremacy as an extension of settler-colonialism.<sup>49</sup> Not only was the founder of the Forest Service, Gifford Pinchot, a member of the United States Eugenic movement, it is often not recognized that for the creation of national parks, Indigenous nations were first displaced brutally and/or dishonestly to make room for the "uninhabited wilderness." "Thousands of years of care were erased in those moments of "conservation."<sup>50</sup> Native nations are still being prosecuted for hunting on their original territories though their treaties with the US government guaranteed these rights. The colonization of nature continues within ideas of conservation.

## Decolonizing Nature

One does not have to be a great seer to predict that the relationship between humans and nature will, in all probability, be the most important questions of the present century.

-Phillippe Descola, *The Ecology of Others*

Let's start here, with a strange question: how did nature become objectified? How did it become othered? To study and think about the climate crisis, is to study and think about inherited ideas of nature—they go hand in hand. Our notions of nature are directly linked to how we do or don't respond to the climate crisis.

An important element of the settler-colonial project was to separate man from nature. Many scholars point to the Cartesian divide between mind and body as the beginning of the man/nature split.<sup>46</sup> Art historian T.J. Demos summarizes this in his book *Decolonizing Nature* by stating "the colonization of nature, emerging from Enlightenment principles of Cartesian dualism between human and non-human worlds, situated the nonhuman world as objectified, passive, and separate" (14). Nature, within the settler-colonial project, became a separate object to be mastered. Writer and historian Amitav Ghosh argues that this divide between humans and nature wasn't merely an outcome, but was an essential goal of the colonial project at large where hierarchies of human value were formed. He explained in a recent interview that this philosophical thought was born as Europeans began "mastering" others during the advent of the African slave trade. The philosophical thought of Cartesian dualism, Ghosh says, was a way to justify the immoral act of enslaving other human beings. Thus, the mind/body divide becomes a justification for ideas of mastery.<sup>47</sup>

- 46 Outlining how this idea came to be beyond the scope of this essay. Val Plumwood, Katherine McKittick, Donna Haraway, Julietta Singh, Karen Barad, Trinh T. Minh-ha, and many other feminist, queer, and BIPOC scholars have outlined the embedded mastery of the Cartesian dualism. See Amitav Ghosh's interview titled "Being Seen and Not Seen" on Emergence Magazine's podcast.



members of the set. They should be seen as forming a system, an interlocking structure. Key elements in the dualistic structure in western thought are the following sets of contrasting pairs:

culture	/	nature
reason	/	nature
male	/	female
mind	/	body (nature)
master	/	slave
reason	/	matter (physicality)
rationality	/	animality (nature)
reason	/	emotion (nature)
mind, spirit	/	nature
freedom	/	necessity (nature)
universal	/	particular
human	/	nature (non-human)
civilised	/	primitive (nature)
production	/	reproduction (nature)
public	/	private
subject	/	object
self	/	other

I do not claim completeness for this list. Indeed completeness is impossible, since any distinction can in principle be treated as a dualism. But these dualisms are key ones for western thought, and reflect the major forms of oppression in western culture. In particular the dualisms of male/female, mental/manual (mind/body), civilised/primitive, human/nature correspond directly to and naturalise gender, class, race and nature oppressions respectively, although a number of others are indirectly involved. Their development has been a historical process, following a historical sequence of evolution. Thus dualisms such as reason/nature may be ancient, but others such as human/nature and subject/object are associated especially with modern, post-enlightenment consciousness. But even the ancient forms do not necessarily fade away because their original context has changed; they are often preserved in our conceptual framework as residues, layers of sediment deposited by past oppressions. Culture thus accumulates a store of such conceptual weapons, which can be mined, refined and redeployed for new uses. So old oppressions stored as dualisms facilitate and break the path for new ones.

Since they are formed by power and correspond to stages of accumulation, any account of their development would also be an

Metal also creates an inversion of weight which calls us to rethink power structures. To give tumbleweeds, which are normally light and airy and easily moved by the wind, the weight and seeming stability of metal, inverts their stability, giving them a potential harm as an extension of settler-colonial and extractivist systems. This inversion, makes material the often imperceptible sphere of settler-colonial power and legacy.

I also find myself wondering what I can learn from this tumbleweed. A number of questions arise such as how do we embrace change from this position within the climate crisis? Recent studies predict that by 2070, over a fifth of the world will be uninhabitable. The migration of human and non-human lifeforms will continue to intensify. How does this plant, as a diasporic being, teach us to embrace porous boundaries? To rethink our national borders? To rethink who and what belongs? While I am cognizant that the tumbleweed has created and represents real harm, I'm also interested in learning from it. To hold both of these things, the harm and the potential lessons, with curiosity feels important in this time of climate change.

There is more to be said here, but I happen to be in the process of installing and making this work as we speak. Thus many of these thoughts are still in formation. I am currently, physically, and conceptually, wrestling with these metal tumbleweeds, what they represent, and what I can learn from them.



Beth Johnston, *The Tumbleweed, For Example*, 2022, work in process, 36 x 38 x 30 inches.

The frontier myth remains influential not only within the Western US region but in American identity, values, and ideals more broadly, including in ideas of rugged individualism and the false guise of American "freedom". As the United States continues to be both a key emitter and obstruction in work to mitigate climate change, the concepts tied to ideas of the frontier myth have global impacts.

The tumbleweed, then, becomes an example for some of the entanglements of US culture with the climate crisis. The conditions that allow for weather phenomena such as tumbleweed, are climate conditions. Rising desertification and drought in the Western US, has allowed Russian Thistle to propagate exponentially, causing waves of tumbleweeds to overtake cars. While we often think of climate disasters as being linked to hurricanes and rising sea levels, the wave of tumbleweeds is also a sign of a changing climate.

The tumbleweed symbol can be found in two of my thesis projects, *The Tumbleweed* (a sculptural work) and *The Great Delusion* (a video piece), both separately discussed in the following pages.

In the sculptural thesis installation titled *The Tumbleweed*, the sculpture, metal tumbleweeds appear to emerge from the wall, engulfing the viewer as if a weather phenomenon or event where nature is overcoming humanity. In *The Tumbleweed*, *For Example*, I point towards this entanglement of current weather patterns and the history of the frontier myth and settler-colonial extractivism. Metal branches jut out from the wall, implying a giant tumbleweed beyond sight that it materialized would be 30 feet high. The viewer in comparison to this giant tumbleweed is made small, an inversion of the "man over nature" paradigm. Other material choices within the work point to an entangled history. The use of metal, for example, is in reference to industrial extractivism that is linked to the global economy, of which the US is a key benefactor. Steel, as the internal skeleton of skyscrapers, cars, and other forms of modernized life, is a resource that is dependent on extractive systems of power.<sup>45</sup> Metal is also seen as indestructible and long lasting. Several of the tumbleweeds have been exposed to salt water and have begun to rust. By allowing the metal to rust, I am pointing to the earthly impermanence of this material, that it too, can decay.

45 See Kathryn Yusoff's lecture "Geo-Logics: Natural Resources as Necropolitics" for more on how steel is a key racialized material and how Black slaves are a foundation for the industrial revolution.

Beth Johnston, *The Perfect Tumbleweed*, 2022, scan of polaroid, 3 x 3.125 inches, this photo appears in *The Great Delusion*.



## Work Analysis: The Tumbleweed, For Example

In January of 2020, a strange phenomenon occurred in Washington State: waves of tumbleweeds overtook driving cars, consuming the vehicles and the disoriented drivers and passengers within them. Scenes of the event appeared on local news channels under the name Tumblegeddon. Rescue efforts took hours to dig the cars out of the 30-foot-high mound of tumbleweeds.

The tumbleweed has become synonymous with the American West. Hollywood depictions of the western "frontier" often start with scenes of this dry, prickly, circular weed bouncing across the desert. However common this weed has become, the species was originally invasive to the region.<sup>43</sup> The parent plant to tumbleweeds, Russian Thistle, was accidentally introduced to the United States by Ukrainian immigrants in 1873 in contaminated bags of flax seeds. Russian Thistle is a beautiful, robust, emerald green color. In the arid west, it is often the only green in sight, a mirage of sorts. When the parent plant dies and dries, the tumbleweed is born, carried by the wind it can spread up to 250,000 seeds per plant. The more disturbed the land, the better for seed germination. The land of the "wild west" offered this disturbance. They've now taken over the landscape, suffocating other vegetation and radically altering ecosystems.

I grew up on a farm in southern Idaho, pulling these weeds from the fields by hand. We tried to stop their spread and contamination of my family's alfalfa seed harvest. The stems of the plant are stiff and would often cut through my skin. Sometimes, the roots of the weed were so strong that it took falling over backwards to yank them from their place.

For me, the tumbleweed symbolizes the frontier myth. This myth, which romanticizes the European colonization of the United States from the 17<sup>th</sup> through 20<sup>th</sup> centuries, depends on the displacement, erasure, and continued genocide of Indigenous peoples and their cultures across North America. The false imagination of the Western US being a vast, uninhabited landscape helped support ideas such as manifest destiny where white settlers "had the divine right" to take and settle land throughout the United States, and especially during westward expansion. The erasing of Indigenous people and their cultures and creating the image of the "savage" to be rescued by the "civilized" man is central to the power structures of the frontier myth.<sup>44</sup>

43

See Kyle Whyte's essay titled "Indigenity" in *Keywords for Environmental Justice* for an interesting discussion on native vs non-native concepts in both horticulture and social sciences.

44

William Cronon's essay "The Problem with Wilderness: or, Getting Back to the Wrong Nature" is influential here as is Dorceta Taylor and Jedidiah Purdy's research which is discussed below.

Screenshot from news footage about "tumblegeddon."



I am inviting others into the conversation about it. As Heather Davis points out in her lecture *Decolonizing the Anthropocene* where she introduces herself as a white settler descendent, she explains that this process should be uncomfortable. It should be messy, in conversation, and in process.

J. Drew Lanham, a Black scholar and ornithologist, uses the process of bird watching to think through how to do difference together and racialized interactions. He reminds us, in his essay "Birds to Border" to literally and metaphorically lower our binoculars every once in a while, to pay attention to the flowers we \* might unknowingly be trampling all over. Often, he points out, we \* get so consumed by our focused attention on a particular perspective and subject, that we \* lose sight of what is around us and what or who we \* might be unintentionally harming.<sup>42</sup>

The climate crisis requires multiple viewers. My community, in conversation, becomes my collective eyes. While I'm looking at the bird, someone else can be my eyes on the ground as they study the flower, telling me to step left or right to avoid harm. This requires communication, trust, openness, humbly and vulnerability. It also requires each of us showing up to do our part. To meet the climate crisis requires a collective dance in which we \* stand with one another.

In every artwork I make, I wrestle with this tension between I and we\*, between the individual and the collective, between my "situated knowledge," to use Donna Haraway's term, and movement towards coalitions. I don't claim to have any answers to these questions, but I do promise that I will continue to wrestle with them.

42 This metaphor is a helpful one in shifting our focus and getting out of our own way in parsing minutes. This mode of thinking might also be one way to (generously) begin thinking across political divides.



Alexis Shotwell and Michelle Murphy's exploration of purity politics and alterlife, respectively, showcase the ways that purity itself is a colonial endeavor that creates hierarchy and division.<sup>38</sup> The pursuit of purity, of being on the right side, also erases our differentiated complexities and complementarities. Life is already altered, there is no return to a pure state, physically or ethnically. Shotwell states:

All there is, while things perpetually fall apart, is the possibility of acting where we are. Being against purity means that there is no primordial state we might wish to get back to, no Eden we have discarded, no pretoxic body we might uncover through enough chia seeds and kombucha. There is no pre-racial state we could access, erasing histories of slavery, forced labor on railroads, colonialism, genocide, and the concomitant responsibilities and requirements. There is no food we can eat, clothing we can buy, or energy we can use without deepening our ties to complex webs of suffering. So, what happens if we start from there?<sup>39</sup>

Given that there is no way to remove oneself from the complex web of unethical modes of being in the world today, we\* instead need to recognize our complicity and work together for better rather than *perfect* or *pure* ways forward. The climate crisis requires collectives; it requires coalition building. But that does not mean universals or universalisms. Shotwell emphasizes that people are not equally to blame, nor are they equally able or called to respond.<sup>40</sup> To use Donna Haraway's term, how do we\* hold this differentiated "response-ability" well?

This is an unanswered question for me and one that I will continue to wrestle with. What does it mean to name and claim my position as a white settler descendent, within systems that I simultaneously critique and actively benefit from?<sup>41</sup> What does differentiated responsibility look like for my artwork and writing? By accepting my complicity, I am not removing it, but

38 For a brief summary of alterlife, see footnote 2.

39 Shotwell, *Against Purity*, 4.

40 Shotwell, *Against Purity*, 7.

41 As a settler in the United States, I have a specific responsibility that requires me to look at my continued relationship with white supremacy. As Shotwell points out, white supremacy claims relation with me as a white body, thus I must acknowledge my implicit relation back as a way to begin dismantling it. See the lecture "Cultures and Media of Environmental Health" for more on this.

The problem was that we did not know whom we meant when we said 'we'.

-Adrienne Rich, "Notes Toward a Politics of Location"

Who is doing violence to the worldwide world?

-Michel Serres, *War, Peace*

We\* is often a universalizing term used within climate discourse and environmental narratives that has the effect of erasing difference and mitigating power relations set in place by colonial and extractive systems. Often, it is used by climate activists as a generalizing term to call for radical change without any specific responsibility. Max Liboiron, an anticolonial scientist, in their book *Pollution Is Colonialism* has a section titled: "Problems, Theories and Methods of We."<sup>36</sup> This section's footnotes provide a quick yet expansive survey of how the term can be used in violent ways. Liboiron highlights essay titles such as Erik Iivie's "What Do You Mean 'We,' 'White Man?'" Mary Hegler's "Climate Change Ain't the First Existential Threat," and Kyle Whyte's "Is It Colonial Deja-vu?".<sup>37</sup> These titles and others point to the ways that the climate crisis is an extension of the human and more-than-human apocalypse that began with the colonization of indigenous, brown, and black bodies and worlds.

- 35 If you are wondering why there are asterisks see footnote 2. In short, it is a visual reminder to think about the universalizing use of the pronoun we\*.
- 36 Max Liboiron, *Pollution Is Colonialism*, 23.
- 37 Timothy Morton, *All Art Is Ecological*, xvi.



Cornelia Parker (b. 1956) is an English artist best known for her installations and sculptural work, which often depict explosions of some kind. Explosions are a temporal occurrence. Through the physical suspension of materials in air, Parker suspends time for the viewer.

Cornelia Parker's work also touches on the debris of violence through the materials used to make the sculptures. In her now famous *Mass* and *Anti-Mass* installations, the materials are gathered from burnt chapels. The difference between *Mass* and *Anti-Mass* is that the former's materials were gathered from a chapel made up of a mostly white congregation in Texas that was burned down due to a lightning strike. The materials for *Anti-Mass*, on the other hand, were gathered from a black congregational church that was burned down by arson, a common hate crime in the Southern United States. The pairing of these two installations with their embedded material histories, highlights a racialized violence that crosses temporalities, both past and present, within the United States

These three artists work with time as a material in a mode similar to my own. The temporality of the climate crisis is hard, if not impossible, to perceive. Through the temporal acts of decay as seen in the rusting of metal in my tumblers installation, discussed below, to the suspension of car parts and rubber in the *Slow Approach of Twilight*, temporality is both a physical and conceptual material.

Cornelia Parker, *Mass*, 1997, Suspended charcoal retrieved from a Texan Baptist church struck by lightning, 320 x 320 x 335.3 cm. Image scanned from Iwona Blazwick's book *titled Cornelia Parker*.



Cornelia Parker, *AntiMass*, 2005, Suspended charcoal retrieved from a Kentucky Baptist church burnt by arsonists, 320 x 320 x 335.3 cm. Image scanned from Iwona Blazwick's book *titled Cornelia Parker*.

Chakala Booker (b. 1953) is a sculptural artist based in Allentown, Pennsylvania. A self-defined, environmental artist, Booker is continually looking to highlight a connection with the environment and responsibilities for its contamination.

Using the rubber from discarded tires, Booker connects ecological concerns with racial and economic harm. The tires, through accumulation and repetition, symbolize industrialization, the auto industry, and the slow violence of pollution on communities of color. The accumulation of tire debris here makes the invisible accumulation of toxins within bodies visible. Accumulation is a temporal and material process. These sculptures point to the slow violence of environmental degradation.

Rubber too, is a temporal material as it is made from fossil fuels. Oil, as it is formed through deep time, is reconfigured into a rubber tire. The tire, an essential part of the car-centric model of the US, is an essential ingredient of modern western life. Travel, commerce, and a myriad of other modern experiences, are sped up through the tire. The tire is used in ways that the artist considers temporally, materially, and in terms of its function.

Chakala Booker, *The Feeding of Men*, 2007,  
rubber tire, wood, steel, 54 x 57 x 65 in.  
Scanned from *RubberMade: Sculpture by Chakala Booker*.



## Leonardo Drew

Leonardo Drew (b.1961) is a sculptural artist based in Brooklyn, New York. Using oxidation, burning, and decay, Drew highlights the temporal processes used to make his materials. For example, many of Drew's sculptures employ rust, as a visible manifestation of decay. In using this process, Drew highlights the impermanence of the constant flux of our material world. Drew describes his work as pointing to the cyclical nature of existence. All materials change over time and through their interaction with other materials; matter constantly cycles through decay and reconstitution. Drew's artwork holds us in that liminal space throughout our experience of the sculptural materials.

Cotton is another important temporal material which highlights the still present realities of slavery in the US. As a product of southern plantations which used slave labor to hand pick the cotton, Drew is referencing the US's deep history and foundation of slavery and racism. Cotton as a material, or a debris of violence, becomes a symbol of a temporal legacy. By using cotton in his work, Drew is bringing these temporal connections of the past to present into the modern conversation.



Leonardo Drew, Number 25, 1992, cotton,  
108 x 120 x 46 inches.  
Image scanned from *Exlsted: Leonardo Drew*.



## Artist(s) Case Study: Time as Material

Chakala Booker, Leonardo Drew, and Cornelia Parker

Time as a material has always been of interest to me. You can't think about the climate crisis without thinking about time, both in its connections to geological time and terms of urgency. Time is a central conceptual element of my work. I've been interested in how it can also be a material element. Time-based pieces, such as films or installations that change over time, are one approach. I use this method in several works such as *The Great Delusion*, a time-based film that deploys references to temporal structures both directly and indirectly. But in thinking beyond "time-based" artworks, I sought to answer the question of how time might be used as a material in alternative ways.

Sculpture artists Leonardo Drew, Chakala Booker, and Cornelia Parker serve as direct influences specifically in the way that their works conceptualize and materialize specific notions of time. Through repetition, suspension, and assemblage, each of these artists invoke and question layers of temporality. Additionally, their material choices are often linked to layered histories of harm, or what I think of as the debris of violence, which is also a temporal material.

Leonardo Drew, *Number 14*, 1990, oxidized metal and rust,  
103 x 83 x 1/8 inches, detail view.  
Image scanned from *Existed: Leonardo Drew*.



See Loren McLenachan's research paper titled "Documenting Loss of Large Trophy Fish from the Florida Keys with Historical Photographs." Brooke Jarvis summarizes this connection with "fish got smaller and smaller, to the point where the prize catches were dwarfed by fish that in years past were piled up and ignored. But the smiles on the fishermen's faces stayed the same size. The world never feels fallen, because we grow accustomed to the fall."

34

The title of the installation, *The Slow Approach of Twilight*, was inspired by research. Within ecological degradation, the "shifting baseline syndrome" points to how we're continually measuring current experience against an altered baseline.<sup>34</sup> The example given was the slow approach of twilight, where we often don't notice progressive or incremental change. Instead, we continually grow accustomed to the shifting loss and degradation around us. What seems like a healthy ecosystem to us now, might have horrified those living 100 years ago.

However, I'm not only interested in twilight representing the imperceptible loss. I'm also interested in twilight as a point of change and a point of seeing differently. Twilight represents transition and liminality. Our eyes, adjusting to a new sensory input, hold both night and day in sight. It is a plurality of vision that is also spectrally expansive. What can we learn from the slow approach of twilight?

Beth Johnston, *The Slow Approach of Twilight*, 2021, Installation view of research material.



The suspended industries serve as an optical or perceptual materialization that links fossil fuel industry to ecological degradation. Control of public perception about the climate crisis and the ongoing legacy of how Americans view "nature" are important elements to the question of why we aren't adequately responding to the climate emergency. Through many deliberate and sophisticated PR campaigns, American individualism and freedom were directly linked to the US auto and fossil fuel industry. This connection continues today, with current debates about "energy independence" that falsely claim that fracking and natural gas are the answers to global conflicts such as the Russian and Ukrainian war. This connection between fossil fuel power and war is not always apparent. That doesn't make it any less true.

I represent this contraction and expansion of time by way of a slow explosion of the vehicle parts. Car parts loom, suspended in air. The viewer stands amidst destruction, amid the unnoticed decline of insect lives and future human lives. The viewer is within the physical and metaphorical explosion. To state this another way, as human beings dependent on earthly ecosystems, we are in the midst of the climate crisis emergency. This ongoing emergency is often still not perceived.

This rupture or disjunction of time scales culminates in the strange slow-yet-urgent emergency that is the climate crisis. For example, the climate crisis reveals itself slower than we can fully perceive, and yet it is relatively urgent within human history. The climate crisis is thus a collapsing and expanding of time simultaneously.

Robert Macfarlane in his book *Underland* talks about how oil sun's light which had been transformed into energy and matter in the forms of plants, insects, and animals then compacted over millions of years which we "swiftly" extract and combust, releasing that energy in massive concentrations. Humans are, through the burning of fossil fuels, a geological force, or a maker of deep time. Simultaneously, an immediate response to the climate crisis is needed. This is emergency time. In this body of work, I visually explore more oil ruptures time. The insect assemblages, for example, appear to be covered in oil, a visual link between the formation of fossil fuels from biomaterial, the burning of fossil fuels which results in global warming, and insect health.

Beth Johnston, *The Slow Approach of Twilight*, 2021, installation views, windshield frames and suspended insects, 5.5' x 2.5' each.



32 See Westervelt, *Rigged*.  
 33 A strange fact that illustrates the insect connection to global capital is that food crop pollination is worth at least \$500 billion per year. With insect decline, farmers are now having to pay for pollination by hand. See *Silent Earth* for more of these connections.

others, illustrate how the fossil fuel companies had a heavy hand and early investment in shaping current ideas and values within the United States, that include American notions of freedom, individualism, and conservation.<sup>32</sup>

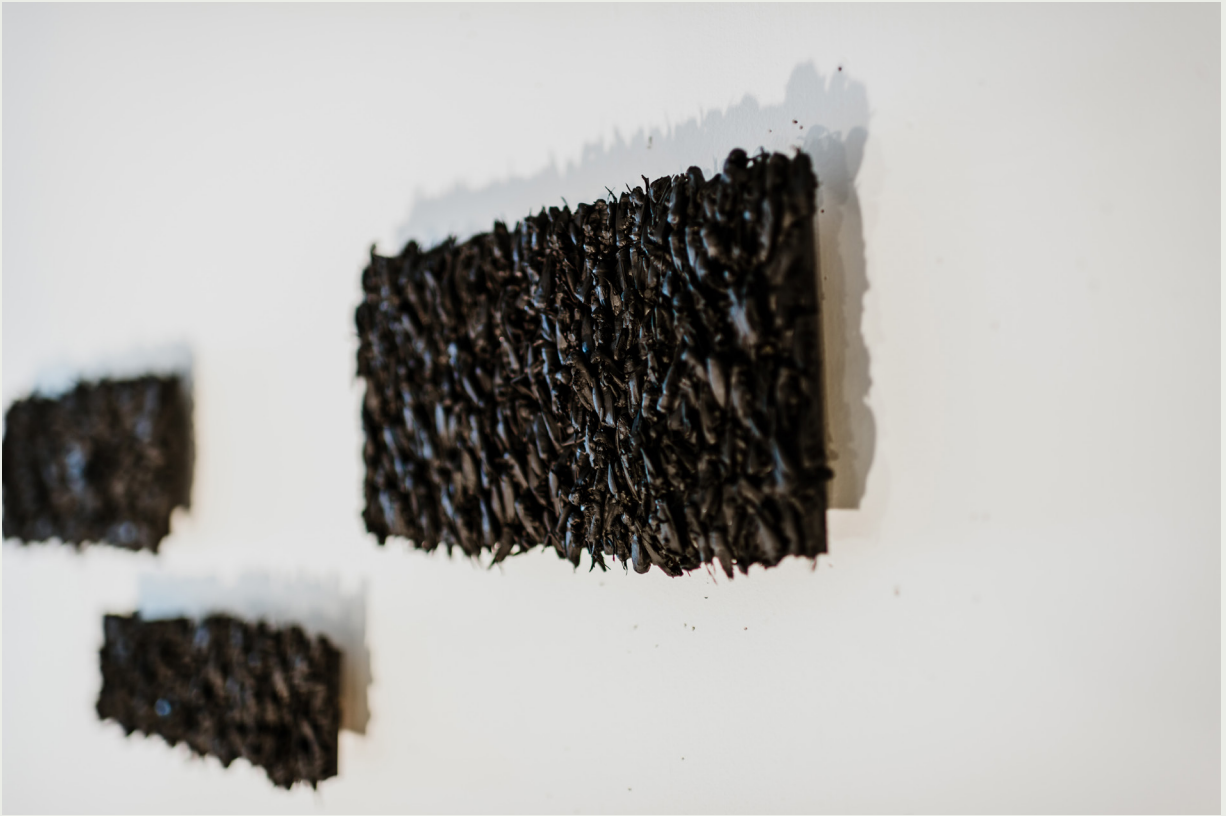
Education within an artwork is often a motivating force for me. In the installation of this work, much of this research is provided either through informational pamphlets, provided as a display, or through a short introduction. This allows the viewer to then experience the artwork with this information at hand. Further, by placing these two seemingly disparate threads in the same room, the connections between fossil fuel companies and insect decline emerge. Insect decline is itself an entangled reality with ties to pesticide use (a petrochemical product) and changing ecosystems within climate change. Highlighting invisible connections is a motivating force for most of my work installations.

When walking through the installation, time is the invisible material. Both insect decline and climate denial campaigns have largely occurred since the 1980's. This was also when I was born. I am connected to these threads by time. This realization opens up an emotional response. To know that my lifetime coincides with the unnoticed insect apocalypse is strange, to say the least. When I allow myself to contemplate this fact, and all of the entanglements this connection represents, I start to feel the loss. We\*, as a species, are one degree separated from insects. Every living thing on the planet is connected to insect health. From plant pollination, to ecological food chains of humans and non-humans, to sophisticated global capital systems, we\* may have robust and overly complicated language for describing all that we\* do and create (and destroy and justification thereof) as a species... but at the end of the day, we\* are just a few years behind these patterns witnessed in the realm of insects.<sup>33</sup>

Science predicts that only twenty percent of insect species across the globe have been identified. Yet, we\*,re currently losing species through extinction before we\* can even notice them.



Beth Johnston, *The Slow Approach of Twilight*, 2021, installation view of insect assemblage pieces.



- 31 See "Climate One Collaboration: Breaking Down Climate Misinformation" by Amy Westervelt for Drilled Podcast.
- 30 See *A Strategic Nature* by Melissa Aronczyk and Maria Espinoza.

I was introduced to this research by an interview of Amy Westervelt, an independent environmental journalist, who has helped uncover the fossil fuel industry's complex role in global warming.<sup>31</sup> In this interview, I heard of the *Rigged* website, an open-source database of Westervelt's and many other scholars' research, including documents proving Exxon's deliberate denial of the greenhouse gas effect. Also in this database are mid-century ephemera, such as fossil fuel posters from the 1950s that link ideas of American Freedom to ideas of war. *Rigged* also highlights collectible landscape prints, which illustrate manufactured links between ideas of nature and capital consumption of fossil fuels. These posters, mainly depicting National Parks, could only be collected by visiting gas stations along the routes to the destinations. A connection between the auto industry, fossil fuel companies, and ideas of nature, conservation, and the American dream are all entangled in this sophisticated PR scheme. These examples, and many

The making of these denial campaigns and their efficacy is a complex and layered history that has ties to beliefs in the American dream, nationalism, individualism, American freedom, and nature as commodity that were formed over the last hundred plus years.<sup>30</sup> Fossil fuel companies, alongside tobacco, automotive, and petrochemical companies, have been purposefully shaping these ideas since the early 1900s.

The second, contemporaneous thread, points to the oil industry's use of PR firms to deliberately mislead the public about the climate emergency. There have been three main forms of denial campaigns identified: that climate change isn't real; that humans aren't the cause of changes occurring; and that we have plenty of time to figure it out and that technologies and green capital are the answer. Fossil fuel companies have largely given up on the first two denial campaigns, and the third is now rampant. Examples of this are ubiquitous and include campaigns such as individual carbon footprints which displaces blame from the industry onto the individual. This campaign is especially effective in the United States where individualism is a celebrated national ideal. This year, there is a new product called a low carbon fuel which only measures carbon impact during production. The "low carbon" label has no measurement for when it is burned by a consumer, once again displacing blame. Fossil fuel companies have invested and continue to invest significantly in the denial of the climate crisis.



Beth Johnston, *The Slow Approach of Twilight*, 2021, installation view.

## Work Analysis: The Slow Approach of Twilight

Medium: Sculpture, Installation, Photo, Video

If all of mankind were to disappear, the world would regenerate back to the rich state of equilibrium that existed 10,000 years ago. If insects were to vanish, the environment would collapse into chaos.

-E.O. Wilson

As an immersive installation, the viewer of *The Slow Approach*

of *Twilight* first encounters a slow-motion video of various

insects taking off for flight. This video is projected from

a rear-view mirror, initially out of sight of the viewer.

As they move past the video, various sculptures appear

including a large assemblage of wiper blades, two suspended

windshields frames with grasshoppers dangling in the middle, and

accumulated and blackened insects in layered and block forms.

Various fossil fuel industry ephemera, evidence, and research

is displayed as research. Lastly, the viewer may notice a small

elapsed hour-glass in the corner, indicating that we're out of

time.

There are two main research threads present in *The Slow*

*Approach of Twilight*. The first is the relatively quick and

unnoticed decline in insects across the world. Recent studies

have found a 45%-75% decrease in insect population in the last

30 years.<sup>28</sup> This has gone largely unnoticed by scientists since

nobody thought to measure insect population until anecdotal

accounts about the noticed absence began to build. Science, in

other words, had a blindspot to this problem; it is currently

in the state of trying to catch up. One of these anecdotal

accounts is termed the "windshield phenomenon", which points to

the realization that you no longer need to clean insects off

your windshield like you used to.<sup>29</sup> The windshields, present in

the installation, point to the windshield phenomenon as well as

auto and fossil fuel industries' role in ecological collapse

through the burning of fossil fuels.

28

This is a complicated field of research to summarize since some insects are thriving, such as mountain pine beetle, which indicate ecosystems being out of balance. A few books dive into this complication including *Silent Earth* by Dave Goulson.

29

For a beautiful, alarming, and insightful description of the insect apocalypse see this New York Times Magazine article by Brooke Jarvis: <https://www.nytimes.com/2018/11/27/magazine/insect-apocalypse.html>

Beth Johnston, *The Slow Approach of Twilight*, 2021, sculpture,  
windshield wiper assemblage, 2' x 4.5'



## Temporal Disjunctures

The porosity of assumed discrete boundaries extends to concepts of linear time. We\* are creatures living in a fast-paced, semi-virtual reality and we\* must find ways to tune into the wildly disorienting geological time wherein planetary changes are occurring as a direct result of our extractive and consumptive pathologies.

A strange temporal landscape emerges within the climate crisis. For example, carbon dioxide released today may not take full effect until 40 years from now. This is referred to as "carbon loading" and is the baseline of the statement that "change is baked in"; it we\* were to cease emissions completely today, the average global temperature would continue to rise for the next several decades, continuing to trigger tipping points into the future. This is an example of a temporal disjuncture or chasm. What we\* do today dictates reality in the cascading future.

Alexis Shotwell points to this by explaining that "tense" (as in linguistic, grammatical temporality) from within the climate crisis "intermingles." Here, Shotwell is not only talking about the carbon loading disjuncture but is pointing to the complex ways in which histories entangle futures through systems of oppression. She says "The past involves the present and the future, the present entangles the past and outlines what is to come, bringing the future into the past, and the future rests on a situated past and can only "happen" in the present; tense intermingles."<sup>27</sup>

In a myriad of ways, the climate crisis represents a transformation of temporalities: where today becomes the future and deep time, or geological time, becomes emergency time. As our now time becomes more layered, complicated, warped, and potent, exploring and imagining time's many modalities becomes both necessary and helpful for re-imagining realities.

27 See Shotwell, *Against Purely*, 16.



Visual Pairing: Cherry Angioma and Red Paint Chip  
Medium: Photography

The photo on the left is a large, pixelated cherry angioma on my breast. The original photo was taken on color medium format film after a shower when I had given myself a mammogram. Zooming into the photo I get a pixelated, abstracted form. I then used Photoshop's color picker tool to find similar reds in various photographs I had taken weeks before and after. These reds were then compiled into a paint color strip, like the ones you might find at Home Depot. Clay, worm skin, and a mineral vein became the names of the extracted reds on the paint strip. This visual is a play on the color index and purposefully blurs the line between my body and non-human entities surrounding me. Through our collective red archive, I become one of many parts of the ecosystem.

As with the blurring of my body with my ecosystem, climate change requires a re-imagining of assumed boundaries. In much of my work, the porosity between seemingly discrete spheres is highlighted. For example, what happens to the worms that are dying in the soil as indicative of the toxicity my body is being exposed to as well. In the above works, the porosity between my body and larger systems of environmental injustices to both human and more-than-human lifeforms is highlighted. This porosity helps bring climate data and research into an interdisciplinary and intersectional discussion.



Beth Johnston, *Red Dots*, 2021, photographic prints, 16" x 30" (image on the left) and 2" x 10" (image on the right).



This video projection and performance situates the data on my body and immediate surroundings. Paired with the text and embedded story, the data becomes grounded and embodied through my personal experience, enlivening the carbon dioxide concentration figures. While the text mainly talks about chemical toxicity, the same systems of power, extraction, and control create carbon dioxide pollution. Thus, by placing these two forms of environmental harm together in this performance, I am highlighting their entangled connections, during the lines between seemingly disparate problems. Further, by using my impacted body within the piece, I also point to my complicity, complicity, and role within toxic ecologies.

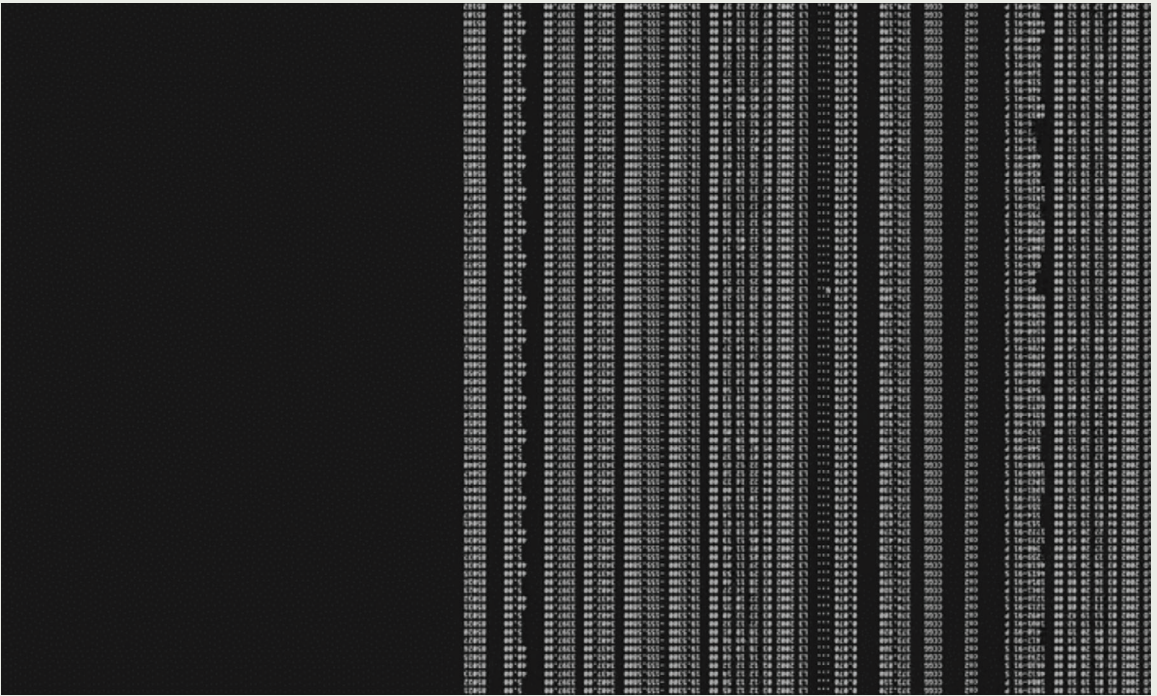
The data, which has been collected since 1958, corresponds roughly with the lifetime of my mother. This reference points to inherited perspectives and intergenerational physical and non-physical toxicity. I'm interested in the porosity between generations and the legacies passed down from one to the next. The climate crisis, like settler-colonialism, is an inherited reality that we may or may not perceive. By directly and indirectly referencing these inherited realities, I hope to bring them into perception and into the conversation.

The looped video shows CO<sub>2</sub> concentration data from the Scripps Laboratory in Hawaii. Projected onto the wall while I stand within the projection and perform the Red Dots text, the data covers my body. The video oscillates in its speed, like the text, but rarely slows enough for the words or text to be clear, pointing to the imperceptibility of climate change. CO<sub>2</sub> itself is invisible but with "CO<sub>2</sub> load" the impacts of our emissions won't be seen for decades, thus representing a temporal disjuncture.<sup>26</sup>

Material: Looped Video and performance of text.

Visual Pairing: CO<sub>2</sub> Scroll

Beth Johnston, Red Dots, 2021, video still  
From projected video performance.



The text is concerned with temporal discontinuities. The slow appearance of red dots is in reference to environmental scholar Rob Nixon's book *Slow Violence: Environmentalisms of the Poor*. Nixon highlights how the slow and often invisible appearance of health degradation from environmental pollution results in corporate and government sanctioned polluters not being held responsible for their harm.<sup>24</sup> The USDA, for example, has never been held accountable for their endorsement of harmful chemicals. Thus, slow violence is a temporal chasm that erases responsibility. The slow appearance of red dots across my body is a material and visual stand in for toxic accumulation that because of its slowness and temporal discontinuities, slips through both perceptual frameworks and legal frameworks.

Kath Weston's book, *Animate Planet* points to the myriad ways that from within the climate crisis, we can no longer trust our senses to tell us when there is danger. The section that starts with "I see the red dots across the landscape" and ends with "they're not even red" points to this sensing and knowing beyond human visual perception, that something is indeed wrong. This highlights an intuitive and embodied knowledge that current western modalities of knowledge dismiss as illegitimate. Here, I'm highlighting how these forms of knowledge might reveal truths beyond our current modes of perception.

I have paired the *Red Dots* text with several different visuals depending on the exhibiting space and audience. I'll discuss two of them here.

- 24 He emphasizes that "white spectacle-driven messaging impedes most public activism today, slow violence, because it is so readily ignored, exacerbates the vulnerability of ecosystems and of people who are poor, disempowered, and often involuntarily displaced."
- 25 Julie Sze, in her essay titled *Scale*, investigates scalar jumps and calls for a multi-scalar lens in which to view the entanglements of the climate crisis. She points out several scalar jump that erase responsibility in a similar method that I argue temporal jumps can. See *Keywords for Environmental Studies*, 178.

The formation of this work came in phases. First, in the shower, as I began to notice a drastic increase in red dots across my body: a reminder that my body is the daughter of my specific mother, who also has these red dots. I was researching a lot about environmental justice and toxicity and happened to be reading Rachel Carson's *Silent Spring* when I got a call from my mom about a breast cancer scare. The scare ended up being just that, a scare, but it brought to the surface several specific memories about life on our family farm, like the smell of pesticides and crop dusts. I began to think about my grandmother, also a farmer, who had died of cancer. I thought about how most of my parents' friends, all farmers, had died of cancer. I thought about the barrels of chemicals surrounding my childhood home. I thought about the generations of farmers before my dad who also covered the land with chemicals. I thought about how the USDA approved and supplemented those chemicals. My dad, and the farmers before him, were told they were good because they were feeding the nation. I thought about chemicals that are grandfathered in - that they are only still allowed because of their date of first use. I thought about these toxic realities and their connection to this one place, and then I thought about how each place holds their own specific toxicities.

An experience of an entangled temporal toxicity emerged. *Red Dots*, the artwork, is my response to this experience.

As I drove back home during winter break from grad school, I recited the Red Dots text to my voice recorder. The words had been forming for months, and during this drive back towards home, they flowed effortlessly. I then transcribed the voice recording to written text.

The text oscillates in tempo and scale. When spoken, there are moments of rushed and slowed speech such as the rushed attempt to rationalize that the red dots don't indicate cancer, where each sentence immediately connects to the next temporally. There is a scaling out from my positioned, individual experience of life on a rural farm in Idaho to global impacts of environmental racism.<sup>23</sup>

I know they're benign  
I know that even if I was to get breast cancer  
It wouldn't be linked to these red dots  
Skin cancer maybe  
But even that is a low probability  
But the connections we make as children are profound  
And lasting  
And perhaps  
Knowing

These little red dots

When I see the snow melting through mining sludge  
I think of these red dots  
When I drive past entire forests turning brown  
I feel the red dots  
When I encounter maps of industrial pollution superimposed with  
maps of brown, black, indigenous and anything but upper-class white  
communities

I see the red dots

Red  
Signs of burning  
Of bleeding  
Of something hurting  
Blood rushing to a wound  
To swell  
Swelling

I see the red dots across the landscape  
Scattered  
Saturated  
Sometimes  
Mostly  
They're not even red

Perhaps it's like when you look into the sun accidentally  
and your vision is glittered for a moment  
Only this glitter represents a dismissed violence  
A long violence  
A slow violence

These sprinkles, these dustings, these marks  
Of seeing something that isn't there

Or is it?

## Work Analysis: Red Dots

Medium: Text, Photography, Video, and Performance

Red Dots: Full Text

I remember my dad telling me to stay inside  
Because a crop duster was coming that afternoon  
He was in a rush  
I'm sure he had a million things to do  
45 minutes later, I could go back outside  
At some point  
Or more likely a collection of points  
Before or after this  
I'm not sure  
I would crawl into my mom's bed after she got home from a  
night shift  
I remember seeing the red dots across her chest and poking at  
them  
Cherry angiomas  
Bright red mole-like bumps where blood vessels have erupted  
They're benign in most cases  
Almost all cases  
And common I've come to learn  
But I remember, at the age of five, worrying that  
My mom would get breast cancer because of these dots  
That they were a sign of something wrong.

I now have these red dots

They appeared slowly  
First, one on my breast, then another  
Now six  
One on my upper eyelid a few years ago  
One on my bottom lip last year  
One near my belly button this week  
A slow appearance  
Spreading across my body  
I give myself a mammogram after a shower

Nothing  
I think?







The climate crisis is a similarly imperceptible and lurking danger. Several scholars posit theories about why we can't conceive of the climate crisis. Psychiatrists argue that if you're thinking about climate change, you're experiencing cognitive dissonance.<sup>21</sup> Ecological philosopher Timothy Morton conceptualizes our inability to grasp the complexities of the climate crisis as a *Hypereobject*; Amitav Ghosh calls it the *Great Derangement*. George Marshall's book *Don't Even Think About It*, is dedicated to exploring our collective ability (or need) to ignore the many testmonies to this ongoing crisis. All point to the ways that climate change is beyond modern Western perception. Researchers are continually uncovering how we are not well equipped psychologically to comprehend and respond to the climate crisis. Marshall's book opens with a chilling recount of a Polish resistance fighter testifying about the systematic murder of Polish Jews. Supreme Court Justice Felix Frankfurter replied to the courtroom "I must be frank. I am unable to believe him." He added: "I did not say this young man is lying. I said I am unable to believe him. There is a difference"(1). In this case, the implications were too horrifying, too awful to comprehend. This did not make them any less true.

Today, I woke up to reporters in Ukraine after the Russian invasion saying, "It all felt so surreal."<sup>22</sup> I certainly do not fully perceive or understand the scope of the danger we face; still, I have spent enough time listening, watching, and attempting to look at this peril that is climate change to say that it is indeed dangerous, unjust, and here.

We've got to find a way to perceive (and believe) the danger.

21  
22

For one example of this see the following article: <https://www.wmbc.com/future/article/20190304-human-evolution-means-we-can-tackle-climate-change>

The Ukrainian war is indeed another tentacle of the climate crisis as fossil fuel industries not only fuel the war, benefit from the war, but also scuffed Putin's power within the Euro-western paradigm. This thinking is informed by Amy Westervelt and other journalists tracing fossil fuel influence globally.

Because truths we don't suspect have a hard time making themselves felt, as when thirteen species of whiptail lizards composed entirely of females stay undiscovered due to bias against such things existing, we have to meet the universe halfway. Nothing will unfold for us unless we move toward what looks to us like nothing: faith is a cascade.

-Alice Fulton, *Shy One*

I remember walking in the Amazon jungle, following as close as possible to Andreas, my machete swinging guide. A native Peruvian, Andreas saw spiders, snakes, and shades of red that I had never conceived of. Where I saw merely a leaf, he saw many beings, including baby tarantulas. He moved swiftly and gracefully through the shoulder high vegetation while I stumbled, and worried, and tried to control my surroundings using visual classification, like identifying plants I'd seen in a textbook.<sup>19</sup>

I have come to understand this experience as indicative of the knowledge systems I have inherited. What we\* perceive is linked directly to inherited ontologies and epistemologies, like my inability to perceive the multiplicities of life present in what I saw as a single leaf. My Peruvian guide had spent time in the jungle, training his eyes to make out the difference between a vine and snake. Time was his teacher, not only through *his* life, but through the generations of knowledge that were accrued through lifetimes of relations with these ecosystems *before* him. I had to follow closely, knowing that I couldn't see or sense the dangers all around me.<sup>20</sup>

19 I'm thinking here about Linnaeus' method of classification that created arbitrary hierarchies and categories amongst the natural world.

20 I tell this story not to highlight my voyeuristic and privileged eco-tourism, but rather to point to the ways in which that experience illustrates yet another loss of the colonial project.

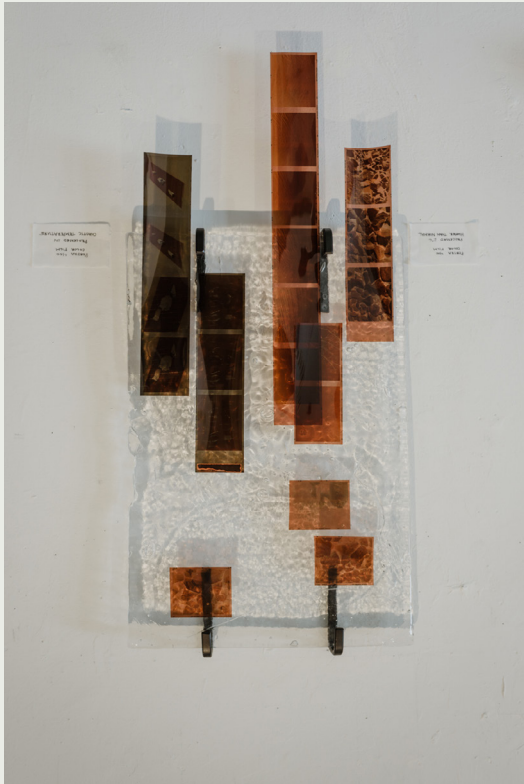
For this project, I wanted to understand what a 4 degree shift could mean physically as I wrestle with my own understanding of what a mere matter of degrees would entail. Taking color negative film, I processed the film at 4 degrees Celsius above the recommended 37.7 degrees Celsius, resulting in dramatic color shifts in the resulting images. Color negative film has a small margin of error of only 1 degree Celsius to render colors correctly. It is, thus, a powerful visual metaphor for the earth's relatively small temperature range required for a stable climate.<sup>17</sup> In the above example, the red rocks become grey, the grey floor becomes blue. In other images, the sky becomes red and water appears toxic. When we look at the sky now, we cannot perceive the accumulation of greenhouse gases or feel the shift in global temperature. These images are a materialization and visualization of climate data, making the invisible threat visible.

Furthermore, these images visualize the uncanny. As I walk around the world while reading climate science, there is a creepy and disturbing knowledge that what is seen is not reality. For example, as I read about ocean acidification and the rising water temperature that will result in massive death within a matter of years, I no longer trust my sight to tell me that something is wrong. The ocean appears as it always has from my perspective. The uncanny, becomes my everyday experience as I walk through the physical world, grappling with this perceptual gap.<sup>18</sup>

This visual data encounter on its own may or may not compel action, but coupled with other work, other conversations, or other experiences, it provides another experience and avenue to grapple with what these data sets mean.

- 17 For a discussion on how the earth's current stable climate has led to many important markers within human history such as writing, agriculture, the formation of cities, etc see Elizabeth Kolbert's book *Filled Notes from a Catastrophe*.
- 18 Environmental philosopher Glenn Albrecht's term "solastalgia", or the homesickness you feel when you're already home due to ecological destruction, is also apt here. See *Earth Emotions* for a description of solastalgia and other proposed terms.

Beth Johnston, *Matter of Degrees*, 2021, photographic prints, rocks, glass slab and film, installation view.



Scientists tell us that 344 billion tons of Arctic ice has melted. But 344 billion tons is magical counting. The problem is not precision. The problem is perception.

-Anne McClintock, *Too Big to See with the Naked Eye*

To know about the climate crisis is to know it partially; it is too complicated, too stratified, and too multiple a problem to be totally perceived by the modern subject. Alexis Shotwell describes it as a "problem we can't know the full shape of" and that is "impossible for any one knower to understand."<sup>15</sup> The climate crisis's scale alone, as planetary, is beyond human scaled perceptions of space and time. In her book, *Animate Planet*, Kath Weston argues that the age of high-tech ecologies has forced us into a realm where our visceral senses, including sight and touch, no longer point to current realities. For example, achy joints might still tell us when rain is coming, but they give no clue to the increase in global temperature or rising carbon dioxide concentrations. The climate crisis is too planetary, too entangled, too complex for us to sense and comprehend at the human scale. We don't sense the danger.

In *Matter of Degrees* I attempt to visualize climate data using photographic film; it is my effort at making the invisible visible through material manipulation. Current climate models predict that there will be a 4-degree Celsius rise in global temperature by the year 2100. While climate models have trouble agreeing on exactly what a 4-degree change might entail (due to the various factors at play), scientists do agree that the global climate would be radically altered, so much so that it would be unrecognizable from anything human beings have ever experienced. The last time the earth's temperature was that high was 15 million years ago during the Miocene epoch when volcanic activity saturated the earth in CO2 emissions. I've read more than a few times that 4 degrees Celsius is so terrifying that most scientists would rather not contemplate it and would rather put their efforts into figuring out what to do now.<sup>16</sup>

15 From a lecture with Heather Houser at Rice University. See Shotwell et al. "Cultures and Media of Environmental Health."  
16 One example can be found halfway through The Guardian's essay "The heat is on over the climate crisis."

Beth Johnston, *Matter of Degrees*, 2021, digital scan of film that was processed at altered temperatures.



is within a Euro-western framework such as academic journals, which assimilates and radically alters that knowledge in the process.<sup>14</sup> Climate data specifically, Houser argues, has a way of pointing out systemic failures as the data continues to reveal its own limitations, what it cannot show, and its entanglements with colonial legacies and spheres beyond climate science. Ironically, Houser posits, this knowledge, one that simultaneously looks at the realities of climate science, and the realities beyond climate science.

The accumulation of data encounters can create tipping points for action. I speak here from personal experience. As I've encountered list after list of extinct species, examples of environmental racism and impacts of natural disasters, as just a few examples, I've experienced my own personal tipping points, ones that have compelled me to action and to consider the limits of my inherited perspectives and epistemologies. The data has now come to represent realities in the past, present and future that are entangled with colonial and capital legacies (among others). One such example is that as I encounter the global temperature rise thresholds, I think about proposed solutions such as renewable energy that is containing on more extractive practices that harm global South communities and ecologies. I get overwhelmed with how complex the problem is, knowing that this is just one thread of a giant knot. Rather than ending in paralysis though, these *Infowhelsm* encounters, through their accumulation and repetition, illustrate a need to invite radical imagination for how to live differently. This, for me, is a productive and activating encounter.

By using climate data as a raw material in my artwork, I hope to enlighten data and support it while looking critically at what it might not be showing or doing. I use repeated data encounters not to produce paralysis, but to make the data move, to re-ground the data through embodied and emotional experience that can propel action. Data, through affect, becomes nerves, becomes matter both within and outside of the porous body as the data encounter enacts different forms of living, being, and knowing. The accumulation of data encounters can be a catalyst, a tipping point, a world-making strategy and if nothing else, the start to an informed conversation.

See Gregory Cajete's book *Native Science* which highlights how native epistemologies don't isolate an object or phenomenon in relation order to understand it, but perceives all elements in relation to one another. Cajete explains that extracting knowledge for academic journals alters the relational and contextual knowledge that is essential.



state that this is not to "argue that danger points do not exist," but rather they are just more complicated than the 1.5 degree Celsius summary might indicate. Thus, while there is some caution about the unintended consequences about using this exact number as a rallying cry, there is no disagreement about the need to keep global warming as low as possible and that the 1.5 degree threshold is a necessary baseline for conversation, education, awareness and action.<sup>11</sup>

The Data Encounter as a Tipping Point

In much of my artwork, including *Dear Reader, Matter of Degrees*, *Red Dots*, and *The Great Delusion*, all discussed below, I incorporate or point towards climate data to provide a shared baseline of knowledge and a means of communicating the data *differentially* through embodied and emotional experience. Following Heather Houser's work, I'm interested in how the data encounter, or *intowhelm* as she calls it, can be an effective strategy to build knowledge about the climate crisis *beyond* the current boundaries of modern disciplines like climate science, not to dismiss these disciplines but to critically build upon them.<sup>12</sup>

As German philosophers Walter Benjamin and Theodor Adorno have attested, the continual state of shock of modern life has atrophied the human sensory experience. The climate crisis and its never ending, always changing, lists upon lists of figures and data, seems to be a continuation of the onslaught of shock. Heather Houser, building off Benjamin's work, argues that the experience of *intowhelm* might actually break through this numbed body experience, and be a necessary impetus to rethink systems, including current knowledge systems, at the scale and entanglement necessary.<sup>13</sup>

Houser, like many others, argues that the ecological crisis is a knowledge crisis. This epistemological crisis is one that highlights not only the problem of public education about climate science, especially in the United States, but also of those knowledge systems that produce said data. Houser argues that we must look at how Euro-western technologies of data collection are implicated in various histories of surveillance, control, and colonialism that have embedded blind spots and biases. An example of this is how indigenous knowledge of ecological degradation is not considered valid unless it

11 Another important factor in my desire to name this climate data is that many in the United States don't know these facts. Fossil fuel corporations are still fueling climate denial campaigns in various forms including the lie that we\* now have plenty of time to reduce emissions. Climate data is already entangled beyond perception, and seemingly opaque, without the onslaught of misinformation. Thus, this scientific data deserves to be stated clearly as a form of activism whenever possible and appropriate in my opinion.

12 *Intowhelm* is also the name of Heather Houser's book.

13 See *Intowhelm*, page 21.

Amplifying the conversation and providing education about the climate crisis is at the heart of my artwork, including the above collection titled *Dear Reader*. In the first section, accumulated fragments, stutters, and attempts to address an absent and temporally ambiguous audience represents both the multiple voices within myself as I grapple with the climate crisis as well as various persons I have been in conversation with, including friends, family members, theorists, and artists.<sup>7</sup> The audience here is both individual and collective. The full letter, which introduces the list of global temperature change thresholds, was written with friends and family members in mind, who may or may not know this specific data. Roughly 10 years ago, I encountered a similar set of figures that forever changed the course of my life. I ultimately came to graduate school to study and make artwork about climate change because of this encounter; thus, this letter is also written to a temporally dislocated self.

*Dear Reader*, introduces the ways in which the climate crisis discourse has embedded conflicts, complexities, and contradictions. For example, the climate data provided, a seemingly straightforward set of lists and statements is a multifaceted topic. While there is widespread agreement that we need to keep global warming below 1.5°C to reduce the risk of runaway climate change,<sup>8</sup> there is also a fear that stating this presumably unattainable goal results in paralysis and despair.<sup>9</sup> Furthermore, by stating this number as a goal, it seems to indicate a tipping point at exactly 1.5 degrees Celsius which oversimplifies climate science and systems, erasing the fact that global warming is already having catastrophic impacts around the world and implies that beyond this point, there is no hope. A recent article published by Yale Climate Connections summarizes this argument with the statement that the "1.5 degree goal can be a useful spur to action, but it's not a make or break point. Importantly, each 0.1-degree increase avoided is cause for celebration and hope."<sup>10</sup> The article quickly goes on to

7

I owe much of this phrasing to Nicole Merola.

8

The International Panel on Climate Change (IPCC), the leading authority on climate science, put out a report in 2018 called "The Special Report on Global Warming of 1.5°C" in which 1.5°C was highlighted as the threshold to keep catastrophic warming and tipping points at bay. For an in-depth analysis of the report and the difference between 1.5 degrees and 2 degrees of warming, see Yale's Climate Connections website.

9

Kyle Powys Whyte's essay titled "Time as Kinship" offers yet another important consideration as he highlights how this kind of data can create an urgency that reproduces and perpetuates the same neoliberal systems that produce climate injustices. Instead, he calls for thinking about time in terms of relationships or kinship.

10

See Richels et al. "The 1.5 degree goal: beware of unintended consequences."

The "chorus of Cassandra" refers to the Greek myth of Cassandra who had the gift of prophecy. When Cassandra rejected Apollo's love, he cast a curse so that nobody would believe her concerns or warnings of the future. The Cassandra syndrome or phenomena now refers to those who have a valid warning but aren't believed.

6

I hope I'm being dramatic and theatrical. I really do. But when you hear scientist after scientist say... no this is actually worse and more complex and more immediate than we can describe, I have to join in on the chorus of Cassandras.

Dear reader,

-Peter Kalnus,  
climate scientist at NASA

"If everyone could see what I see coming, society would switch into climate emergency mode and end fossil fuels in just a few years."

"What we do over the next three to four years... is going to determine the future of humanity. We are in a very desperate situation."  
-David King,  
one of Australia's top public scientists

January 27th, 2022

Dear Reader,

I have no idea what your beliefs are, what your background is, or what your education about the climate crisis looks like. I am not interested in assuming that I have something new to tell you. So let's start there. What drives me to make this work is that somehow in 2022 we're still not talking about the climate crisis, at least not in the capacity and complexity it requires. It is still contained in a neat box- over there- to be opened occasionally. When in actuality... it is the air we breathe.

2 degrees Celsius above pre-industrial global temperature has been stated as the disaster threshold. Newer studies find that things are *unexpectedly* accelerating quicker than predicted and that 1.5 degrees Celsius should be the goal. We're at 1.18 of that 1.5 now. We're heading towards a 4-degree Celsius increase by 2100- something scientists say is truly beyond comprehension. A mere matter of degrees is the difference between life and death as we know it on this planet. This isn't hyperbole or a metaphor. We are living within the sixth mass extinction. Currently.

In order to stay below the 1.5-degree critical threshold, we must cut emissions dramatically in the next seven years. By the time you read this, less. We do have the means to reach this goal, but it requires the collective entering the conversation. Now.

So, yes, I will repeat these things until they need to not be repeated.

With sincerity,

Beth



Dear Reader:

Dear reader,

You might not yet be convinced.<sup>5</sup>

Dear reader,

You might feel apathetic and powerless.

Dear reader,

You know all the facts, you've been moved by them a few times, but they're just there - in a box over there - spilling out over your carpet occasionally when it isn't as cold as it used to be.

Dear reader,

Politics are getting in the way of hearing.

Dear reader,

This conversation needs you.

Dear reader,

10, 20, 30, 100 years from now...

I hope this is a small chapter in history books. I hope we're called alarmists.

Dear reader,

I won't bombard you with catastrophic data, you've been through that already. It resides in your body.

Dear reader,

You might have already survived an apocalypse.

5

According to a study released in 2021 by Yale Climate Connections and George Mason University, 15% of Americans still don't believe in global warming, 25% indicate that they are alarmed, and 60% remain apathetic for various reasons. See Leiserowitz et al. "Climate Change in the American Mind."

I hope this is a small chapter in history books. I hope  
we're called alarmists.

100 years from now...

30  
20  
10

Dear reader

Dust: an Accumulation





I have great respect for empirical and intellectual forms of knowledge. What I'm attempting to highlight here is working beyond these discrete categories. Climate science, for example, is a very needed and important form of making climate change known. I'm interested in honoring climate science, while also seeing its biases and limitations to enact political and social change. There are unknowns, potentials, and incongruities that lie beyond scientific categorization and what it perceives.

4

This essay is a collection of macro-essays, or particles, that explore several themes, the most prominent of which are non-linear time, affectuating data, and concepts of nature as they relate to the climate crisis. Many other elements float through these pages as ideas about perception, entanglement, and more-than-human worlds. These essays provide multiple entry points into my practice and can be read in any order. They have porous boundaries and are meant to cross-pollinate. It is in their current gathering, in their accumulation over time, that something else is formed(ing).

The suffix "-action" signifies action. It transforms verbs into nouns. I'm interested in the act of making, in the process, in the embedded verb of making new forms. This is not as an act of arrival, but as active, unfinished participation in making new realities: in making new form-ations.

Finally, there is a fragmented, accumulated, and oscillating way in which climate crisis knowledge is formed. In her book *Inflow/Outflow*, Heather Houser states that "juxtaposition, contradiction, and temporal layering" (4) are needed strategies for affective and embodied understanding of the climate crisis. I use these tools in my artwork as well as in this essay to embrace a different kind of knowing, one that is formed through non-linear accumulation.

I look to the scholarship of Indigenous, Black, Latinx, Queer, and epistemologies. Native scientist, scholar, and author Robin Wall Kimmerer (and many others) maintain that Indigenous forms of knowledge extend beyond western containers of the empirical and intellectual, to include the emotional and spiritual as legitimate and necessary ways of knowing. Katherine McKittick's book *Dear Science and Other Stories* illustrates how "narrations of imperfection, and relationality interrupt knowledge systems that seek to observe, know, and discipline lackness." By interjecting lists, poetry, and personal reflections in addition to my academic writing, I attempt to extend beyond, add to, and blur the boundaries between discrete western categories of knowledge.<sup>4</sup>

Introduction: Notes on Form(ation)

Simple problems... have defined causes, objectives, and outputs. Wicked problems, though, are multifaceted in every respect- they are incomplete, contradictory, and constantly changing. As a result, there is no point at which one has enough information to make decisions. Instead, wicked problems demand a continuous process of evaluation and redefinition.

-George Marshall, *Don't Even Think About It*

The climate crisis is a wicked problem. It requires creative communication, wrestling with contradictions, active re-working of systems, and employing multiplicities of knowledge. Michelle Murphy calls "alter-modes of collaboration." This thesis essay is an extension of my scholarship, artwork, and personal ethos; I'm interested in how this essay form can also be an alter-mode of collaboration.

My research on the climate crisis compels me to rethink systems on every level: to rethink "life" and what constitutes "life" as we know it, and how we know it, while also trying to not lose our grounding, to not get lost in paralyzations.<sup>2</sup> This need to rethink systems arises not out of a desire to merely think differently, but precisely because the climate crisis is an existential crisis and demands it. As I engage with this scholarship and reality, I find myself wrestling with how I can join this movement to rethink current power structures and systems.<sup>3</sup>

1

Alter-concepts and alter-modes are part of Michelle Murphy's working concept of alter-life which "names life already altered" in reference to the colonial chemical pollution that is a shared, yet differentiated, reality. This extends to social and political structures that are colonialist. See "Alter-life and Decolonial Chemical Relations," 496.

2

See the essay "The Problem with We\* And the Limits of I\*" for a look at the term "we". I use the asterisk symbol behind "we" to visually remind first myself but also a potential reader, that speaking of "we" here is not a universal "we" which erases specific responsibility.

3

This wrestling is informed by many scholars including E. Tuck and K.W. Yang's essay "Decolonization is a Not a Metaphor". The article asks us within academia "to consider how the pursuit of critical consciousness, the pursuit of social justice through a critical enlightenment, can also be settler moves or innocence of guilt or responsibility, and conceal the need to give up land or power or privilege," 21.





Abstract:

The climate crisis is a wicked problem that poses many obstacles for action and understanding. This thesis is a non-linear accumulation of academic essays, interpolated with lists, anecdotal observations, data, and artwork that together explore the entanglements and complications of the climate crisis and my journey in making artwork as a response to these complications. The thesis surveys six bodies of artwork created over the course of graduate school, which use photography, sculptural installation, performance, and video to illustrate various topics and methodologies. Grounded in research on environmental justice, this essay explores temporal disjunctions, climate data encounters, the decolonization of nature, and how to visualize the imperceptible.



Contents:	9
Abstract	9
For Consideration: What is Climate Change?	10
Introduction: Notes on Form(ation)	12
Dust: an Accumulation	15
Dear Reader	16
Work Analysis: Dear Reader	21
Work Analysis: Matter of Degrees	24
Perception of Danger	28
For Consideration: A Memory	31
Work Analysis: Red Dots	32
For Consideration: Modalities of Time	40
Temporal Disjunctures	41
Work Analysis: The Slow Approach of Twilight	42
Time as Material: Artist Case Studies	52
The Problem with We* and the Limits of I*	60
Work Analysis: The Tumbleweed, For Example	64
Decolonizing Nature	70
For Consideration: The Colonial House	75
Work Analysis: The Great Delusion	76
Research as Material: Artist Case Studies	82
An Entangled Transform(ation)	88
Towards Another Form(ation)	90
For Consideration: Global Carbon Dioxide	93
Acknowledgements	95
Works Cited	96
The Great Delusion	100





For my nieces and nephews.



The Form(action) of Loess

A thesis presented in partial fulfillment of the requirements for the degree Master of Fine Art in Photography in the Department of Photography of the Rhode Island School of Design, Providence, Rhode Island.

By Beth Johnston, 2022

Approved by Master's Examination Committee:

---

Laine Rettmer  
Assistant Professor in Residence  
Photography Department  
Rhode Island School of Design  
Thesis Chair

---

Anne West, PhD  
Senior Critic  
Division of Architecture and Design  
Faculty Mentor, Center for Arts and Language  
Rhode Island School of Design  
Thesis Advisor

---

Dr. Nicole M. Merola  
Professor of Environmental Humanities & American Literatures  
Department of Literary Arts and Studies  
Rhode Island School of Design  
Thesis Advisor



