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Lily Fife Schaeufele
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Letters to a Glacier; An Experiment and Critique of M. Jackson's
Glacier-Ruins Narrative

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Independent Study Project
11.18.2021



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*The Penumbra
surrounding our fear
is the unknown, the undefined, the greyness,
the paralyzation not of complete darkness but of ambiguity
in between action and inaction.*

Abstract

“Words are events, they do things, change things. They transform both speaker and hearer; they feed energy back and forth and amplify it. They feed understanding or emotion back and forth and amplify it.”¹

Ursula K. Le Guin

Letters to a Glacier; The Buoy Project Isafjordur is an ongoing invitation to the people of Isafjordur to write a letter to a specific glacier in Iceland onto a collection of discarded buoys gathered from the Isafjordur and Bolungarvik junk yards. Over a period of two days on November 9th and 10th, I actively invited customers in the local cafe Heimabyggð to take part in the project. The project was advertised in various locations around Isafjordur in both English and Icelandic. Places with posters included: The University Center, the hallway between the dance studio and Edinborg, Hamraborg, and Heimabyggð. The event was also advertised on Facebook and Instagram by Heimabyggð. A total of 24 letters were written by the public during this time. The transcript of those letters are included at the bottom of this document. The buoys will be returned to the Isafjordur junkyard, so they might be used as buoys at a future date.

I chose buoys as a medium for glacial letter writing because they are widely available objects often seen in fishing or seaport towns. Their natural buoyancy is uplifting. The colors are both fun and alarming. And in the predicted scenario where many Icelandic glaciers will melt, they might meet the water of a glacier, and the glacier can meet the words.

In this essay I will critique M. Jackson’s glacier-ruins narrative, and make a case that the role of art in climate discourse is not to make predictive statements, or imagine alternative futures. But instead, it’s role is to reflect and question both its subject matter and the structures that contextualize the art, and provide a space for people to experience and conceptualise our realities through alternative mediums.

¹ Ursula K. Le Guinn. *The Wave in the Mind: Talks and Essays on the Writer, the Reader and the Imagination*. 2004.

Preface to Question

In science we approach things in a very orderly manner. Drawing from Fudge and Turko's approach to the scientific method (ie: the hypothetico deductive method) we must first make a puzzling observation. And from that we form either a constrained or open ended question. Fudge and Turko define an open ended question as a question "for which the range of possible answers is not constrained and it is not obvious how they should be answered."² It is the answers from open ended questions that "often form the basis of general theory". Fudge and Turko decide to focus on open ended questions in their commentary about the power of predictions in forming well thought out experiments because such questions are immensely difficult to answer due to the sheer amount of possible answers. It is also for this reason that I chose to use an open ended question in my project or 'experiment'. Open ended questions are often the basis from which conversations elicited from art develop. However, the processes in which we get there may differ from the scientific method.

Continuing down the line of the hypothetico deductive methods, from this open ended question we form a hypothesis, and from that hypothesis we form a detailed prediction that is both critical and persuasive.³ Good science will have multiple hypotheses and predictions.⁴ This is so we don't get emotionally invested in one scenario, for scientists know that the mind has an immense power to imagine - to make up worlds, realities. So we must insert methods that will trick us into being objective - in a reality where objectivity may not even be possible.

After predictions have been made, we can begin to test them. If the prediction is a good one, it will be easy to prove or disprove it. And we go down the long line of predictions until we find one that provides us with a little bit of *truth* - an answer to our open ended question. I believe artists can attempt to do the same with their work, provide puzzling observations, or present questions, in which we the viewer might derive a little bit of truth.

² Fudge DS, Turko AJ. "The best predictions in experimental biology are critical and persuasive." page 1.

³ A critical prediction will prove a hypothesis to be false. A persuasive prediction will provide convincing evidence that a hypothesis is true. Since 'being convinced' is subject to subjectivity, a body of persuasive predictions will instill more faith that the hypothesis is true. (Fudge and Turko)

⁴ John R. Platt. "Strong Inference" page 1

Between asking the *question* and finding an *answer* we must assemble our methods. These will inform the tangibility of the study, and provide a roadmap for others to execute our means, and meander their way through our modes of thought. Sometimes, our brains don't present in this orderly fashion. Sometimes you may make a puzzling observation and from that comes a question that your subconscious takes and stores until you have thoroughly worked through the gears. Your brain however, will give you clues. My clue was the methods. I suddenly had an impulse to write letters to glaciers. However, the questions were not clear. What would the letters be about? Who even would be writing these letters? Where would they go? A glacier does not have a postbox and an address, at least in the way we usually conceptualize these things. And finally, Why write a letter to a glacier? Thus **my question for this study is, *Why write a letter to a glacier?*** The *why* if figured out, could lead the way to the *what*, the *who*, and the *where*.

And as a professor once told me, *you can form an excellent well thought out experimental plan. But there are times, in which the best mode of action is to just start, and see what happens.*

Objectives

When presented with completing a project on climate change and climate change solutions: a topic that's broadness and scale can be both paralyzing and intensely generative, I turned to glaciers. I turned to glaciers because of their scale, their fragments of past climates and worlds kept frozen in their ice cores. For their role as sculptors of our current landscapes. In general, for the curious ways they move through time.

So as a method of attempting to understand *change* on a climatic and personal level, I have invited the public to write letters to glaciers. I realize that writing to a glacier is no easy feat. Because you are talking to an entity that in a very real sense cannot hear you. Yet you grieve for her. You relate to her. You share histories. You share a home. But the communication between you is varied; and often, flies under the radar of

words. So you are putting yourself in the position of writing and talking to someone who cannot hear you, but for whom you care for deeply.

Justification

Letter writing is a delayed confrontation. You talk to the person you are writing a letter to by first, confronting yourself on what *you* intend to communicate. In the process of letter writing you are forced to *think* of what you want to say, then *write* it down on paper or screen, and then furthermore *look* at the words you have put down as stand alone ideas, and *imagine* even further that these ideas will be delivered to a person or an entity in the very concrete form of a letter. A letter: in other words is the process of congealing thoughts into objects of communication, that move through time distinctly different from a contemporaneous conversation.

Methods

For the physical project I collected buoys from the Isafjordur and Bolungarvik Junkyards. I used Sharpies and off brand permanent markers to write on the buoys. I used Oddur Sigurðsson's book on Geographic Names of Iceland's Glaciers as a database.⁵ I advertised the buoy project via posters, instagram, facebook, and word of mouth. During the event at Hemmabyggd, I approached cafe goers in real life to discuss my project goals and how they could participate. For the paper, I researched and analysed the literature surrounding climate change in the arts, and how literature and narratives overlap onto landscapes.

⁵ Oddur Sigurðsson, Richard S. Williams, *Geographic Names of Iceland's Glaciers: Historic and Modern*.

Context and Literature Review

The Glacier-Ruins Narrative

M. Jackson is a glaciologist who has written such works as *The Secret Lives of Glaciers* and *While Glaciers Slept: Being Human in a Time of Climate Change*. Her paper “Glaciers and climate change: narratives of ruined futures” introduces her theory of the *glacier-ruins narrative*. A glacier-ruins narrative positions glaciers as a symbol for climate change, stripping it of any other history and role it might have played or still plays in past and current realities. Jackson argues that “narrating glaciers as climate change ruins normalizes and predetermines a glacier free world not yet in existence while reducing the range of imaginable climate change-influenced futures.”⁶ Jackson chooses five examples in the ‘humanities’ in which she believes embodies the glacier-ruins narrative. Three of these examples are art, one is a documentary, and the last is an educational display.

While Jackson is arguing here to combat a reductionist narrative, I will argue that the examples of art she has given do not narrate and determine a future state of loss, but merely comment on the loss that has happened, and the loss that is projected to happen.⁷ Jackson “finds that the glacier-ruins narrative normalizes landscapes without glaciers and dominates the ice with metaphors of loss and ruin over previous narratives such as wild and sublime.” I recognize here that Jackson is talking about normalizing landscapes that are *currently* housing glaciers, however it is important to recognize that our landscapes today are in fact *normalized* glacier ruins. Glacial moraines shape the landscape in front Bruarjokull in South Iceland,⁸ and Martha’s Vineyard in Cape Cod.⁹ New York City is one small island filled with millions of people living on glacial till, boulders or ‘glacial erratics’ left behind when a glacier melts pepper Central Park, and Brooklyn, Queens, and Staten Island are marked by the highground of a terminal glacial moraine.¹⁰

⁶ M. Jackson, “Glaciers and climate change: narratives of ruined futures”. Page 479

⁷ Helgi Björnsson and Finnur Pálsson. “Icelandic Glaciers”.

⁸ Vatnajokull National Park. “Glacier Geomorphology”

⁹ United States Geological Survey, “Geologic History of Cape Cod”.

¹⁰ William J. Broad. “How the Ice Age Shaped New York”. 2018.

Many of our landscapes today were carved by glaciers and are now empty of those glaciers. Yet they are not viewed as ruins per se, but as our homes, physically and narratively home to our mythologies. The crater above Isafjordur in the Westfjords of Iceland for example in local folklore is said to have been caused by a giant who sat down in the mountain, making a seat for themselves.¹¹ Furthermore, the formation narrative of the giant's sitting does not necessarily contradict the formation narrative of the cirque glacier. It merely adds to its *stratigraphy*, a cornerstone to Bertrand Westphal's¹² theory of geocriticism. The stratigraphy of a place in this context, is when "over time, one layer of interpretation is added to another, forming strata of memories, meanings, and dreams that throw a place into an ever-changing relief."¹³ So while Jackson fears that imagining our future glacial landscapes without ice is drowning out narratives of glaciers as *wild* and *sublime*, a landscape does not have to be monolithic, and has the potential to hold multiple narratives in one time, as well as the ability for dominant narratives of a landscape to change with social relevance. I could argue further that "imagined states of loss" do not "overlook the existing state of a glacier and/or glacier systems" but highlight the fear we have of this future loss, and the value that we still hold on to that glaciers are something 'wild and sublime'.

Jackson identifies glaciers retreat as a result of the process of ruination¹⁴, and by the undergoing of ruination the glacier becomes itself a ruin. Jackson goes on to further say that a glacier-ruins narrative can itself ruinate depending on the actor perpetrating the narrative "It may be employed to exert pressure on behalf of climate activists as much as it might be used to buttress arguments that the planet is too far gone"¹⁵. However, if more warming were to take place, more glaciers would melt, which means more of the ocean will rise, crippling more coastal cities, communities, and nations to a greater degree. Saying that the glaciers are "too far gone" is an illogical argument. Thus

¹¹ Maria Wilke. "A study of community involvement in the Westfjords of Iceland and Southern New Zealand"

¹² Bertrand Westphal is a French essayist born in 1962 and author of "Geocriticism: Real and Fictional Spaces" and "The Plausible World: A Geocritical Approach to Space, Place, and Maps". His theory and on geocriticism highlights the intertextuality of texts and the places they interact with, calling to question how our fictions manifest in our physical realities.

¹³ Eggeler, Gropper. page 23. "*Dreaming of a glacier Snæfellsjökull in a geocritical perspective.*"

¹⁴ Ann Stoler. Page 195. "Imperial debris: reflections on ruins and ruination." Ruination is described by anthropologist Ann Laura Stoler as "both an act of ruining, a condition of being ruined, and a cause of it."

¹⁵ M. Jackson, "Glaciers and climate change: narratives of ruined futures". Page 483.

presenting a glacier-ruins narrative as equal game to climate denialists and climate activists is not applicable.

I think it is important to remember here what a narrative is exactly. According to the Oxford English Dictionary a narrative is “An account of a series of events, facts, etc., given in order and with the establishing of connections between them; a narration, a story.”¹⁶ Jackson posits that at its barebone, a glacier-ruins narrative “understands glaciers through presupposed future extinctions as opposed to what glaciers’ individual and collective statuses are experienced in present day”. However, understanding that many glaciers *are* receding *is* how we experience them in the present day.

Is the narrative of imagining future glaciers as completely erased from the landscape completing its own prophecy? No. Using fossil fuels is ruining the existence of glaciers. The narrative of this *ruination* is not actively doing the ruining but participating in the dialogue, identifying a series of events, facts, and drawing connections between them to foresee into the future. It is simple, emitting greenhouse gases into the atmosphere is raising the global average temperature resulting in ice melting.¹⁷

¹⁶ Oxford English Dictionary definition 2a : narrative.

¹⁷ UCAR Center for Science Education. “Climate and Ice”. 2019.



Figure 1. Olafur Eliasson and Minik Rosing's first iteration of Ice Watch. Copenhagen 2014.

Jackson's first example of a glacier-ruins narrative is Olafur Eliasson and Minik Rosing's series Ice Watch, specifically their first installment in which they placed 100 tonnes of glacial ice, ethically sourced from free floating icebergs, in the central city square of Copenhagen in the shape of a clock (see Figure 1.) Jackson condemns this installation into her glacier-ruins narrative, which are in her words "inherently deterministic and reductionist." Deterministic in that the one possible future for glaciers is to melt, and reductionist by insinuating that this is the only role of a glacier. Jackson fails to mention that the Copenhagen installation was opened "to mark the publication of the UN Fifth Assessment Report on Climate Change by the IPCC."¹⁸ Jackson reasons that "By taking the ice out of its own individual settings, its own context, in result, such displays normalized glacier melt and subtly furthered its inability to trouble citizens of

¹⁸ Ice Watch Website: History.

Denmark.”¹⁹ With this reasoning one could also argue that taking the ice outside its own context does the opposite of normalizing glacial melt for the simple fact that large hunks of glacial ice in city squares is not a normal occurrence. Jackson also takes issue that “the everyday cobblestones of Copenhagen were not affected by the melting Greenlandic artifacts; in reality, no Danish citizens were interrupted nor inconvenienced by such a display.” Here, Jackson wishes that the Ice Watch installation would operate synonymous to the consequences of climate change that would flood the cobblestones and trouble its citizens. However, her theory that the installation did not trouble the citizens of Copenhagen is flimsy and does not account or provide evidence that the installation didn’t interrupt or inconvenience the minds of people walking by, interacting on whatever scale with the unusual presence of glacial ice in their city square.

Although Jackson’s paper was published in 2015, Eliasson and Rosing have continued installations of Ice Watch in different cities in congruence with major events in climate change discourse. In 2015, Ice Watch was installed at the Place du Pantheon in Paris while the COP 21 conference that brought about the Paris Agreement took place. The project has taken place in Katowice Poland when the city hosted COP 24, outside the Tate Modern, and outside Bloomberg’s European headquarters in London.

Today the Ice Watch website has a plethora of resources for viewers to browse including an article by Rebecca Solnit “Don’t Despair: The Climate Fight Is Only Over If You Think It Is”, Mary Robinson on “Feeling “This Is Too Big for Me” Is No Use to Anybody”, Daniel Aldana Cohen on how ‘Apocalyptic Climate Reporting Completely Misses the Point’, and a link to 350.org an organization dedicated to taking action against climate change. These resources were not available on Elisasson’s website in early 2015.²⁰ However, the 2015 website did contextualize the piece as a response to the IPCC Fifth Assessment Report, and states that “Ice Watch was a physical wake-up call: the ice is melting. Sea levels are rising. Temperatures are increasing. Climate change is a fact.” This to me does not seem like a message where “resignation has traded place with problem solving” but a warning. A warning that if action is not done, ice will melt.

¹⁹ Jackson, “Glaciers and climate change: narratives of ruined futures”. Page 485

²⁰ Wayback Machine Olafur Eliason.net/Ice Watch. Accessed February 2015.

Predicting the future with less ice than it has now, is not a prediction that this is our determined future, but a future that is likely if industrialisation continues and countries do not work to curb their emissions. Jackson is questioning the very role of climate change art, suggesting that it should do exactly what climate change does, to interrupt, to inconvenience, to be a symbol. Jackson looks to artists' work which process and open dialogues around climate change, identifies them as dealing with the subject and thus places them in her glacier-ruins narrative reducing the multiplicity of narratives a single work has the possibility weave, gather, and inspire.

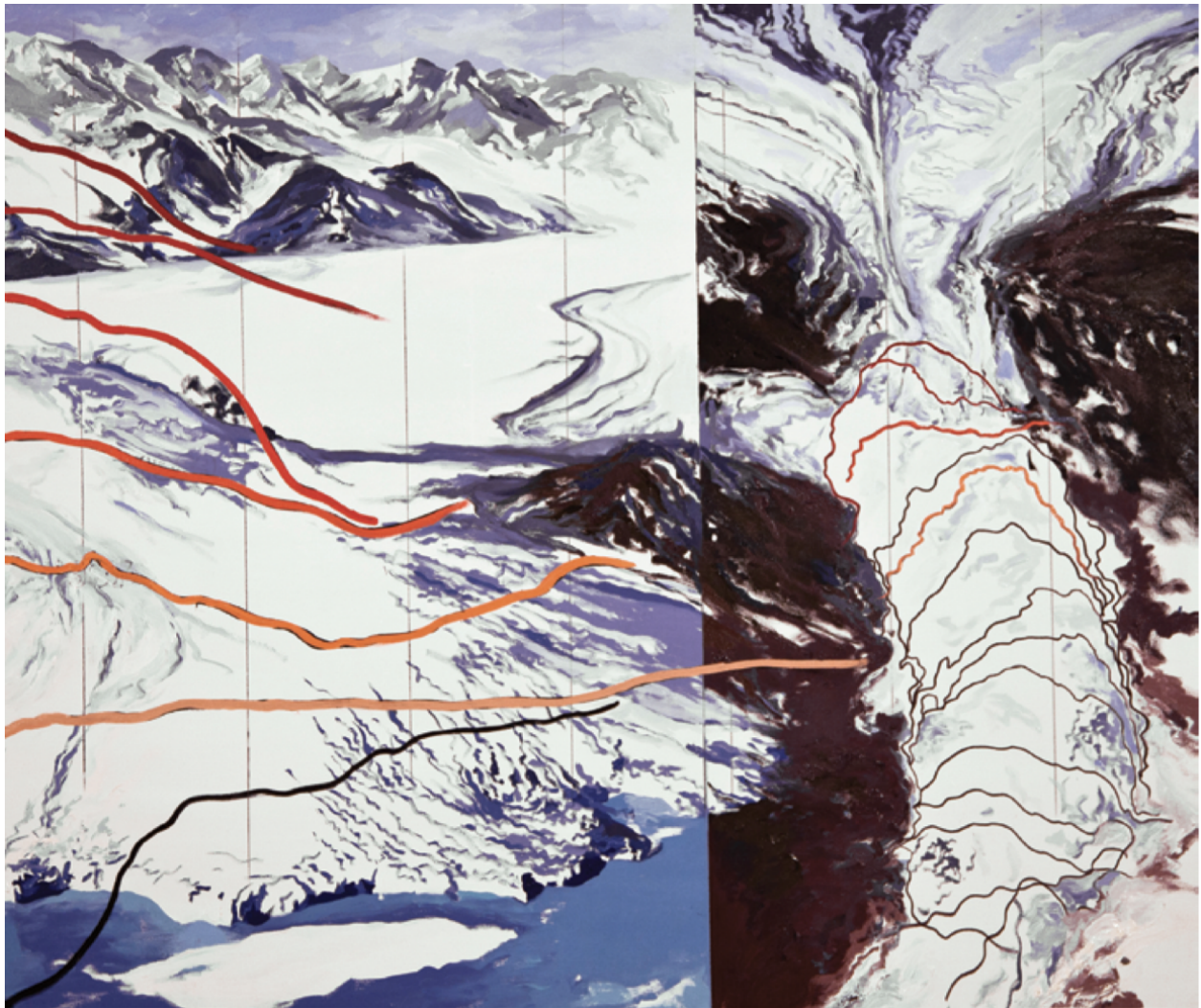


Figure 2. Columbia Glacier Lines of Recession 1980 - 2005. Oil on canvas, 51 x 60 inches, 2011.

American landscape painter Diane Burko's 2011 series *Politics of Snow* is another of M. Jackson's examples of a glacier-ruins narrative. Specifically the oil painting *Columbia Glacier Lines of Recession 1980 - 2005* (see above). In this painting Burko uses 'recessional lines', a scientific method of marking glacial retreat over time. Mark A. Cheetham, a professor of art history at the University of Toronto and Guughenheim fellow, admires how "Burko deploys several strategies to suggest that human temporal frames are a primary issue in the measurement and comprehension of climate disruption."²¹ Climate disruption here is synonymous to what is colloquially understood as climate change - taking into account that change is always occurring in our climate and earth systems.

Jackson takes issue with Burko dealing with the subject of climate change and glaciers at all. Lamenting that "Rarely do modern painters portray glacial ice as it exists, without the undercurrents of loss or climate change. Emotions toward ice, such singular understandings and subsequent depictions may limit the range of ways to experience the world's remaining glaciers." (Jackson, 485) However, loss of ice does not necessarily erase what a glacier is. Look to Denise Riley's concept of "temporal abundance". What she describes in her essay *Time Lived Without its Flow*, written after the sudden death of her son, as an "elaborate, dynamic, silent temporal abundance, even as this is also an abundance in loss". She begins the essay by plainly stating: "I'll not be writing about death, but an altered condition of life." Perhaps this is how we might think of glaciers today, part of a system, rapidly changing.

The glacier-ruins narrative posits that art that deals with glacial loss in our future is caving to a mono-narrative and participating in a narrative that Jackson believes is prophetic. However, placing art into boxes and stripping it of its context is creating the mono-narrative that Jackson finds so troubling. If we allow art to breathe, recognizing that an artist's decision to reckon with glacial loss as part of the broader diminishing of biodiversity and an un-wilding we have seen in our recent past²² is firstly the artist's pergotative, and secondly a sliver of hope that people themselves have a

²¹Mark A. Cheetham. "Diane Burko: Vast and Vanishing".

²² David Attenborough: A Life on Our Planet. 2020.

consciousness in tune with the harm we are and have been conflicting on the natural world.

On 'Dropping the Storyline' - Conceptualising Climate in Unconventional Temporalities

Interestingly, Jackson hits a chord which she deems detrimental to the cause, but what other thinkers have identified as the very essence of understanding climate change. While commenting on the Ice Watch installation Jackson remarks that “While they intended to raise awareness about climate change, what occurred instead was the folding of time and scale.”²³ *Folded time* is what writer Maggie Nelson²⁴ describes in the fourth quadrant of her book concerning climate change, as a more “palpable” variation of how we perceive time when we *drop the storyline*. On this Nelson looks to Chödrön who says:

*All story lines, including 'progressive' ones, which pin their hopes on the arc of history moving towards justice. For at some point in our lives, if we live long enough, we begin to feel in a visceral fashion what we've always known intellectually to be true: our life spans will not allow us to take in the whole story. Indeed, there may be no whole story. Maybe there's no story at all. Our brains may be hardwired to produce story as a means of organizing space and time, but that doesn't mean that story is the only mode available to us in experiencing our lives.*²⁵

Jackson too, essentially wishes for us to “drop the storyline” that our future holds no ice. She recognized the power of narrative, its ability to “significantly influence our capacity to imagine tomorrow, next year, the future.”²⁶ However, gives it too much

²³ Jackson. “Glaciers and climate change: narratives of ruined futures”. Page 485

²⁴ Maggie Nelson is a writer of books such as *Argonauts*, *Bluets*, *The Art of Cruelty*. Referenced here is her most recent book *On Freedom*, an essay in four parts - art, sex, drugs, and climate. Published August 31, 2021.

²⁵ Pema Chödrön cited by Maggie Nelson on page 208 of *On Freedom*.

²⁶ Jackson, “Glaciers and climate change: narratives of ruined futures”. Page 480

power, demonizing how people interact with glacial loss as a current reality and predicted future, instead of placing the blame on the actual perpetrators of anthropogenic induced climate change, such as the fossil fuel companies and governments that endorse them.

Jackson uses Joan Didion's famous line "We tell ourselves stories in order to live"²⁷ to denote the power of narrative. This quote comes right before Didion says "I am talking here about a time when I began to doubt the premises of all the stories I had ever told myself, a common condition but one I found troubling." Chödrön, Nelson, Jackson, and Didion are all questioning *narrative* as a method of experiencing time.

Didion elaborates on this idea that the story is a social construct made for ourselves, by ourselves, separate from our *actual experience*.

We interpret what we see, select the most workable of the multiple choices. We live entirely, especially if we are writers, by the imposition of a narrative line upon disparate images, by the "ideas" with which we have learned to freeze the shifting phantasmagoria which is our actual experience. Or at least we do for a while.

Jackson, Nelson, and Didion recognize the power of narrative, but ask us to question the storyline as a tool to interpreting experience, and as a limitation to imagining the future. We can pause here to think about how stories might embrace a multiplicity of narratives; that by entertaining a diversity of beings, stories can have the ability to span a variety of timescales. That a story does not need to have one narrative. That a story can be complex. However, this does not mean that all stories are true, or equal in the truths they refer to.

²⁷ Joan Didion. *The White Album*. 1979.

Geocriticism: Narratives in the Landscape

Geocriticism is an approach coined by essayist Bertrand Westphal and extensively elaborated on in his book *Geocriticism: Real and Fictional Spaces*. The premise of geocriticism is to instead of studying the intertextuality between a single author's life works, to study a *place* through the texts that have engaged with it. It is, however, not strictly bound to the written word, but also aims to examine how the written word influences the *place* and people's perceptions of said place. As Eggeler points out in his geocritical analysis of Snæfellsjökull: "Westphal never tires to emphasise the interconnectedness between fiction and reality, how the literary treatments of places are never completely separable from their physical reality but at the same time influence our perception of this reality so much that they in turn constitute a major factor in the way that perceived ›reality‹ is Constructed." In more simpler terms, "How we see a place always is coloured by what we have read or heard about it."²⁸

Postmodernism and Climate Change

Westphal defines geocriticism as in part, a postmodern study of space-time. On defining postmodernism he turns to geographers Dear and Flutsy:

"In sum, postmodernism undermines the modernist belief that theory can mirror reality, and replaces it with a partial, relativistic viewpoint emphasizing the contingent, mediated nature of theory building. Metatheories and foundational thoughts are rejected in favor of micro-explanations and undecidability. More than most thinkers, post modernists learn to contextualize, to tolerate relativism, and to be conscious always of difference."²⁹

Postmodernism in climate change discourse today is varied. In the realms of climate fiction, Adeline Johns-Putra argues that Alexis Wright's *The Swan Book* (2013)

²⁸ Matthias Eggeler. "Dreaming of a Glacier; Snæfellsjökull in a Geocritical Perspective". 2019.

²⁹ Michael Dear, Steven Flutsy. "The Space of Postmodernism: Readings in Human Geography".

and Chang-rae Lee's *On Such a Full Sea* (2014), "show a postmodern self-awareness that constitutes a promising new direction for fiction in the Anthropocene."³⁰ Here Johns-Putra is using Jean-Francois Lyotard's punchline definition of postmodernism as "incredulity towards metanarratives".³¹

Others argue that postmodernism is dead. Alan Kirby gives evidence to this by pointing to the outdated curriculum being fed to students: *The French Lieutenant's Woman, Nights at the Circus, If on a Winter's Night a Traveller, Do Androids Dream of Electric Sheep?*. None of these represent a world which students today would recognize, a world of super-speed technology, the information age that started in the mid 20th century, but mutated with the introduction of the pocket size smartphone. Kirby theorizes that "somewhere in the late 1990s or early 2000s, the emergence of new technologies re-structured, violently and forever, the nature of the author, the reader and the text, and the relationships between them."³² By doing so "The terms by which authority, knowledge, selfhood, reality and time are conceived have been altered, suddenly and forever."

However, just because postmodernist literature taught in schools is 'old' does not mean that iterations of postmodernism don't exist in today's social discourse. If we are talking about postmodernism where in its essence, truth is viewed as relative, "Facts exist, but their interpretation is determined as much by society, culture, politics, and economics as by scientific objectivity", Kenneth L. Verosub argues that this is an all too familiar rhetoric used by climate denialists, who in his words "are applying a postmodern interpretation to the question of global climate".³³ He points to pseudo-science and the manipulation of scientific data from corporations and governments invested in their own economic and political advances as a propellant, pushing the validity of science to the fringes of believability. For example, Verosub sites mishaps such as the one by the IPCC in 2010 which reported that the Himalayan glaciers would disappear by 2035 instead of its original estimate of 2350; a typo of human error snatched up by climate

³⁰ Adeline Johns-Putra. "The Rest Is Silence: Postmodern and Postcolonial Possibilities in Climate Change Fiction."

³¹ "incredulity towards metanarratives" phrase by Lyotard also cited in Stanford Encyclopedia of Philosophy. Jean François Lyotard. Article Published 2018.

³² Alan Kirby "The Death of Postmodernism and Beyond".

³³ Kenneth L. Verosub Ph.d. "Climate Science in a PostModern World".

denialists as proof that scientists are capable of interpreting data to fit their own personal beliefs.

Verosub sums up by providing two simple paths forward. One, for scientists to communicate comprehensible explanations of their work and how they achieve that work as individuals. Verosub appeals for this communication work to “extend all the way to how science functions and what kinds of questions it can and cannot be expected to answer”. Secondly, he anticipates that scientists will need to recognize they are working in a postmodern world, and use the rhetoric to reason with skeptics whose own reasoning stems from postmodernism theory.

The same steps forward could be said for artists working with climate as subject matter. M. Jackson seems to expect artists’ to imagine new possible futures that aren’t the doom and gloom of the reality we see today, and expect to see if major shifts in how we use and distribute power are not changed to support a warming world.

Like Verosub argues for scientists, I believe artists could do better at “communicating comprehensible explanations of their work and how they achieve that work as individuals”. This is not to say, artists should dum down their work to fit one explanation - to fit any ‘explanation’. But more of communicating what artist’s do, why they do it, and “what kind of questions (art) can and cannot be expected to answer”. Artists are not policy makers or engineers. They are not the ones who are building us a more sustainable and equitable future. They are the ones reflecting our world in mediums we are not accustomed to experiencing our world through. They are the ones questioning the foundations we take for granted, questioning the methods we use to build our future cities, questioning our routines, the way we generate knowledge, the ways we experience time.

Space and Place - Y Fu Tuan, A Letter, and A glacier

In Y Fu Tuan's methodology, we must first identify the sites as 'space' or 'place' or perhaps a mixture of both and from there we might attempt to navigate within and between them. Tuan begins by saying that "space and place are basic components of the lived world;" Space then becomes place when it is given cultural value, meaning, or memory. We can think of glaciers in this way as well. In a letter to Leirufjarðarjökull, a participant in the buoy project remembered how she interacted with glaciers as a child and in reflecting how she sees that childhood glacier today wrote that "You are the same but with a different face, a different place, but you are a spaceless thing - so impossibly existing that sometimes I think you must be alive." This calls to mind Tuan's "place is security, space is freedom" theory. It also contradicts M.Jackson's theory that a glacier's sublimity and wildness is retracted by an acknowledgment in our narratives that glaciers are changing, in other words by the presence of her glacier-ruins narrative.

This letter written to Leirufjarðarjökull shows that just because a glacier's security is changing, does not cancel out the freedom that it instills, and the spacelessness that it encompasses in people's minds. *Spaceless* can be defined as "having no limits: boundless" or it can be defined as "occupying no space"³⁴. Arguably, something that is boundless is occupying boundless amounts of space. That is if we think of space not as something contained with edges, but as Y Fu Tuan defines it: that if "space is that which allows movement, then place is pause; each pause in movement makes it possible for location to be transformed into place"³⁵ The letter to Leirufjarðarjökull sums up this paradox when it says that in this way the glacier is "so impossibly existing". And as a glacier changes our conceptions of a glacier as "places" change with it, as well as the narratives that we draw between ourselves and these changing landscapes.

³⁴ Merriam-Webster Dictionary of "spaceless"

³⁵ Y Fu Tuan. "Space and Place: The Perspective of Experience".

Ethics

The participants were informed about the project, and willingly chose to participate. I presented the event as an interactive art project, of which any documentation resulting from participation would be public. All sources for this paper were cited in the bibliography.

On the topic of consciousness and writing to unconscious beings.

Thought experiment: If we imagine a glacier to be alive, imagine its curiosities, its disappointments, its desires. Is the glacier alive in our imagination? We have created a narrative where the glacier is alive - where it has personality and therefore personhood.

Does it really matter if the glacier has consciousness or not? If we do not know for sure, what in the first place a consciousness is or isn't, how can we then assign or detract it from living things, or even things we do not perceive as living. We do not even know if a consciousness exists as a binary; that is to say, it either exists or doesn't exist.

We may think of consciousness as the ability to think things, to feel things, to imagine things - but also as something that we do not fully comprehend and cannot ourselves imagine the scope and nuances of consciousness - of aliveness.

This idea of consciousness is socially constructed into our mythologies. In our mythologies foxes are clever and muskrats are heroic, winds speak and creatures erected from our imaginations dramatically transform the landscape with the initiative of their desires, that can only come from something we call consciousness. Here, consciousness lies somewhere between fiction and reality. They are the fictions we give to our realities, and the reality we assign to our fictions.

Presentation of Results/Findings

If I were to throw the buoys in the ocean with the intention of sending them as if they were a postcard to the future glaciers melted by increased global temperatures, the project would embody a glacier-ruins narrative. This is because in this scenario, throwing a buoy letter into the ocean is a concrete action based on the idea that the glacier the letter is written to will melt. Remember here, that for something to be a glacier-ruins narrative it has to 1. Act as if a future without ice is inevitable. 2. Talk about glaciers only in relation to their current or future melt. However, If I were to throw a buoy letter into the ocean with the intention of it reaching the glacier in question by means of the ocean telling the fishes, and the fishes telling the land, and the land giving the glacier my letter. Would this qualify as a glacier-ruins narrative? No. If however, I were to mention its future demise by the hands of humanity as many of the participants in the buoy project did, this would place the project back into a glacier-ruins narrative.

None of this, however, really matters. Because this is an art project. And in all realness the glacier is not going to 'read' the letter, so how, or where the letter is sent, or if it is sent at all is irrelevant. What matters most is that you have written the letter. That you have gone through the exercise of imagining the glacier can hear you, has the consciousness and personhood associated with consciousness to understand you. This is for the most part how I gave directions to participants of the project. Yet most, if not all letters mentioned how glaciers as a whole are or will be affected by climate change. One letter expressed the strong hope that their glacier might not melt, even though scientists have determined that this glacier is doomed.³⁶ This is not evidence that we view glaciers as a lost cause, as Jackson suggests. Neither does acknowledging that glaciers are in fact melting. Of course one letter cannot be used to insinuate the views of a collective people. However this is art, a process by which individuals can process and interpret the world in unorthodox and sometimes, illogical ways. Art that embodies a glacier-ruins narrative is not prophetic, but a tool in which we might use to understand the reality we live in.

³⁶ LS Anderson et al. "Holocene Glacier and Climate Variations in Vestfirðir, Iceland, from the Modeling from Drangajökull Ice Cap".

Conclusions

Ice can be as old as our oldest grandmothers, and become ephemeral to the slightest change in temperature - shifting into a substance that is transitory itself - moving through space by completely different rules.

Letters to a glacier is an experiment in dropping the storyline. A letter is only a fragment of a narrative. Stringed together, the buoys can embrace multitudes of these fragmented narratives written to specific Icelandic glaciers as if they were alive. Letters to a glacier is an experiment in making the wide brush scope of climate change personal, both to yourself and the glacier you are writing. In this dialogue you might find something new, strange, something you have been thinking, something you would only say to a glacier. A letter to a glacier is a correspondence where we might stray from the linear narrative of daily routines, of one thing leading to another, it is a place where we might experiment with time - by writing to something moving, something not quite alive, something so alive, something dying, something dead. It is a place to go where we might understand sadness, absurdism, and love. A method of interacting with stories that exceed our own.

Appendix

What a Letter is

Letters are not stories. They are fragments of a life, meandering thoughts, mundane details of a day.

Their one unifying trait is that in a letter there is usually an intended reader.

A letter is
a slice of a conversation, paused on a plate
waiting to be eaten.

A letter is
an appeal to an interaction
a form
of stalled
patient communication.

A letter may request a great many deal of things.

- substantive action on climate change
- justice for the black lives taken

from this world by the systems this world was built from
from the hate embedded into the bodily systems of
our neighbors
our police, our so called protectors.

or a letter may simply request your yearly taxes
but that is really not so simple at all.

A letter may apologise

ask nothing more of its reader - than to read it.

A letter may be boring
redundant

or

A letter may hold the excitement of someone
bouncing their eyeballs on the pavement
because the slowness of time has suddenly speeded up
or because
time has finally slowed down enough to catch a mouthful.

When thinking about what a letter is - the essence - the bones of a letter
it does not really matter what is in this letter.

What a letter is
is a thread of contact
proof that we are thinking of the person
on the other side.

enough to address them in a letter at least.

Address to a Glacier

Dear reader,

These letters are for the fishes to catch in their mouths and bring to where the sea meets the land. And it is from the mouths of the fishes for the sand to take until the waves cast them far up the bluff where earth and rock and moss might grow. And this is where the sand is to give the moss, and for the moss to take the words deep underground into chthonic mycorrhizal webs, and back up to where earth meets ice. And it is here that I send these letters to; a place and a being, where they might be slowly and gracefully consumed.

*If the center will not hold*³⁷

If the glaciers melt. the letters will melt with them.

and they will meet the moss

who will meet the sand who will remember - and toss the words and ice back into the sea.

and the fish will eat the words

scattered, disassembled. And their bodies will remember
and swim the shape of *jöklar* in the sea.

and the ocean will remember what it was when it was glaciers

When ocean was sky touching ice touching sky

breaching time

³⁷ Title of 2017 Documentary "Joan Didion: The Center Will Not Hold". Derived from the Joan Didion quote in *Slouching Towards Bethlehem* "The center was not holding. It was a country of bankruptcy notices and public-auction announcements and commonplace reports of casual killings and misplaced children and abandoned homes and vandals who misplaced even the four-letter words they scrawled.."

Letters to Glaciers: November 9th + 10th 2021 Hemmabyggð Editions

Dear Breiðamerkurjökull,

You are dirty but still beautiful.

Dear Jökulhálsjökull,

Ég veitað þà
Grætur meira með
Hverju àri nu sem
Lið.. hjà og ég vildi
Að allt væri öðruvísi.

En vonandi veistu að
Mannfólleið er eins eg
Börnini nà Hùrunni,
Hafa ekki þroskann till
Að breyta mistökunum
Eins mikið og þan
Skilja hvað fur ùrskkidis.
En þroskimm
Ætti að vera à Leiðinni
Og vonandi verður það
Til þess að sàrin grða
Og þu dafnar à ný. :) <3

Dear Hoffelsjökull,

Eg var að
Byrja að læra
Ízlensku!

Eg vona að
Jöklar nir
Komi aftur
Einn daginn

Sad i vise nikad!!
Lítið er nú landið vort
Og létt um það að streyma
Á fjórum tímum fór-og kort-
Fram í Jokulheima

Ekki Fara
Koru Jöklar

Berjst Afram

Dear Drangajökull,

You are my champion! Of the 269 glaciers in Iceland, you are the only one that hasn't shrunk in recent years. That gives me a lot of hope for the time being. But, given the fate of your fellow glaciers - here in Iceland and globally - I'm also, sadly, sure it's only a matter of time. I am so sorry for what we have done to your "species" if we can label glaciers as such. And I'm so sorry that the terrible fate of melting is in your future. Thankyou for being the wonder that you are and bravely facing warming temperatures in recent years. I wish we had more time. Here's to hoping we will, and that humanity will combat climate change, for the sake of all of us. Thinking of you always.

Lots of love,
Sylvie.

Dear Hólatindajökull,

They say the water has a memory. She remembers all the rocks she touched streaming as a wild river, all the whales she hugged in the depths of the ocean, all human's hands that washed its sweat in her crystal clear surface. So when the time comes and you receive this postcard from a stranger named Greta, dare to catch a ball full of hope, joy, support, trust, pure human laugh and honest belief, that a life full of scars and cracks is beautiful and flawless in it's own way.*

*P.S. Allyson says hi! <3

Dear Ljóturjökull,

Ég veit að við. Mennirnir
Höfum ógnað tilveru ykkar
Med ábyrgðarlausir hegðun.
Þui bið ég ykkur afsökunar, og
Skora á ykkur að þrauka í þeirri
Von að mannkynið taki sig saman í
Andlitinu.

Dear Þaralátursjökull,

Jhríti jökulskalli, heill þér höfðingi.

Dear Reykjarfjarðarjökull,

Puff, puff you smokey glacier. Drift off into the sea. Drifting off lines to shores, to me, sleep deprived and soon spicy tingles in the mouth. Kimchi, you fermented beauty. Will the flight leave on time, or will your sublimation come early? Who knows? Robin? Nick? Melte? Polymers can figure this out.

Dear Kviárkjökull

Ambient fluidity at O'celcius. Flowing forever,
Never the same. Movement and recession layers upon
Layers like the baked Earth you flow over, covering
Immense vast land. Pure zero at the center with a
Coating of hot ash and radioactive dust from Russia. The
Grayest landscape and the most beautiful. The most
Beautiful flowing mass with daughters falling down like ghosts. You are the mother of mothers.

Love always, Bianca.

Dear Dyngjujökull,

Dear Glacier,

I hope my kids get to see you. I hope we can save you. I hope you survive this mess. I'm sorry
for everything humans have done to this world.

You are beautiful and powerful

You remind me of a sleeping dragon

I love your colors

Dear Leirufjarðarjökull,

You don't know me but I know you. I have known you all of my life, since before I could walk. My
mother would carry me on her back, wrapped in coats and windbreakers all the way to the ice. I
knew your cold with my little hand pressed against your blue body. I knew you on the water, my
face burnt from the wind and a coffee-gone-cold in my hand. I've watched you pressed against
the tideline, tidewater, your seracs against the sky, something sharp cracking in the noiseless
day. You are the same but with a different face, a different place, but you are a spaceless thing -
so impossibly existing that sometimes I think you must be alive. You have moved and changed
as I have. You have breathed - my father's fingers in mine, my hair around my face - katabatic
wind, he says, is the breath of the glacier. You have lived on this earth with me, river of ice,
ephemeral in your existence. Maybe you'll be here when I'm gone, maybe not. I have known
you & not known you. Loved you & missed you & lived on this earth with you, and I am sure I
will see you on the other side of it too.

Xoxo, Robin.

Dear Sótajokull

I ate peanut butter yesterday. It was delicious. And I was sneaking around, you know. Which I shouldn't do. But just so good. Já já you don't really need that much cream anyway.

Dear Kvíahnúksjökull,

Defy the sun, shrinking ozone, trash. Stay cold, blue, jagged, unmoved.
Refuse to change, melt or be broken. You were perfect before, and can be again.
I hope that you never have to touch these words.

Vanessa <3

Stay true to your purpose!
If humans are truly accelerating your
demise we are making strides to
protect you! I love the earth
And will keep doing what
I can to protect you
Too!

David

Dear Kaldalónsjökull,

Hey, yo!

Chill out, dawg!

Love, Sam

Dear Snæfellsjökull,

Pack List:

- Dishes
- Add songs

- Potato toppings
- Grapefruit
- Bagel x3
- Potato?

I've been listening to a lot of Bon Iver lately. I guess it's cause the music makes me feel like the landscape around here does - an insignificant observer but somehow a necessary part of something greater, something beautiful. Did you know he filmed one of his music videos in Iceland? It's for the song "Holocene", on his eponymous album, right after "Minnesota, WI." Degrees of separation. Maybe we're not so separate after all.

When I was a kid one of my goals in life was to see a glacier. With an implied “before I die”. Although I didn’t say that because I was ten. You don’t think about your own death when you’re ten. At least not like that. You have all the time in the world.

It’s a funny concept, wanting to see things before you die. At the glacial lagoon Jokulsárlon, they’re advertising kayak trips to see the icebergs before they’re gone. “Last chance tourism” it’s called. They used to be hiking trips.

There’s something captivating about death. Something that draws us to the spectacle, a burning building right there in front of us. Is it the sense of powerlessness? Knowing that we are unable to help and that all we can do is watch as beams fall down, icebergs cave, and the lake gets deeper? Or is it the knowledge that it’s our fault? That we saw the arsonist on his way in and wished him a very lovely morning? Or maybe we, too, are the arsonist, setting fire to the building just to watch it as it twists and tumbles in on itself. Unaware that we are stuck inside as it burns. Or maybe we are aware and just enjoying the show.

Lily says this is just an exercise in writing a letter to something that can’t hear me. That’s probably for the best. What can you say to something dying a death you are responsible for?

Hell, I’m still a kid. I want to see a glacier before I die.

Dear Blagilsjökull,

I want you baby angel, stay Sunday night.

Dear Hagajokull (Innri)

Hey, Buddy -

You’ve had a pretty good run. Innri is a weird modifier to put on a glacier. Innri means inner. You’re not inner; you’re outside. Your innards are nougat and caramel. Innri. The Romans hung a sign above Jesus that said INRI. He deserved better. You deserved better. Are we the Romans? Choosing a Barabbas of cheap energy and sentencing you to a slow painful death? I’m not religious, and I’m not a Bible scholar. Maybe it’s not analogous. Maybe that’s not how it all went down. You were around back then. Perhaps you could tell us if you could talk. Would you tell us? Would you hold it all innri? I once read that the 40 days and 40 nights of rain may have been a Jökulhlaup. I will die before you, but I’m still sorry for your death. I love you.

Dear Hagajökull (fremri)

I’m so sorry. I’m not sure there’s much more to say. An apology without action is cheap. I feel like shit writing empty words. Some days I hope that what I can contribute is enough. Most days it feels like a drop in the ocean. Who am I to believe I can impact the entire world? Who am I not to try? What is trying without faith it’s going somewhere? What was I saying? Damn, sometimes I take myself way too seriously. Sometimes I think of myself as a joke. Sorry to be writing about my own crisis of faith when you are on death’s door. Maybe that’s the entire problem. We’re all so preoccupied with our own bullshit. I don’t know. This feels very high school angst. There’s no

way out of this without sounding like a whiny asshole. Sorry I've started this all wrong. This all boils down to a shitty apology, so guess I'll lean into it.

I'M SO SORRY!!

Dear Hyrningsjökull,

Ekki Hopa. OK?

Dear Austurungnajökull,

Ast frá Emma + Mimi <3

Dear Lambatungnajökull,

Ójala que puede encontrar paz. Es algo que todos Merecen, y sería la primera cosa en su eternidad Que usted merecen. Que usted tenga una vida Más larga que yo y con tanto amor.

- Taylor

Dear Fjallsjökull,

Dan says Isafjordur is sinking. I wonder if this is true. I could not find anything on google scholar about it. Don't take it personally. It may not even be from your melt. Dan says Isafjordur was built on a landfill. Gunnar says this is true. One time, Gunnar says, they tugged a whole bulldozer from what they thought was earth. That's why we can't build a new pool, says Gunnar. So maybe Isafjordur is sinking. Maybe it is the weight of our stuff, our buildings, the old pool collecting mass over time. Collecting mass each time someone closes their eyes in the water and let their limbs float and sink and turn. Each time they let something heavy go. And the heaviness stays, while you walk up the pool stairs - while I walk up the pool stairs, leaving behind a layer that laps up to the edges and sticks to the walls. Maybe it's the hamburgers and blizzards and stews burgeoning into our bodies and our bodies burgeoning down into the ground. This ground we call earth, this earth we've made ourselves. If you do melt so great that you make the oceans rise, I hope you'll visit Isafjordur. Not in a self sabotage sort of way. But I think we'll miss you - need to hear from you - in some sort of way. And yea, I know. All this heaviness that couldn't be made into ground, we've put in the air. And the heaviness in the air will eventually eat the ground. The ground we stand on, put our pools on, this ground we call earth. I have a question. Is the ground we have manufactured out of waste, is this ground also earth? Can earth be bulldozers? Blizzard cups? Plastic one inch spoons in every color there is an M&M of? Tires and cars, and old containers that could hold something but don't. Isn't there also something magical about that? Fishing nets on fishing nets on buoys. And buckets, loads of buckets. But they all have holes coming in them the wrong way. So they sit there, waiting. Waiting to become earth. Waiting for the glaciers to become oceans, and the oceans that were glaciers to move through them until they become oceans too. Will an ocean be an ocean if it is made of buckets? Dan says Isafjordur is sinking. Yes, I'd say definitely in a self sabotage sort of way.

Dear Glúfursárjökull,

I was looking at a fish bowl the other day. It got me thinking about bowls, and fish, and fish in bowls. Usually I get sad when I look at fish in bowls. But this one was beautiful, green, active, blue, alive. It makes your brain quiet like the ocean sometimes does when it laps up at the edges of land. The lumpfish guy says that fish could have consciousness. The hagfish guy says that we probably shouldn't talk about it. In the bowl, the fish go back and forth, up and down. I do this also in my bowl. In the bowl, fish are fed - kept alive by some outside hand - and prey that they are willing to descend. When I was 6 I got two fish. Their names were Sneaky and Creepy. I slept by their tank the first few nights they were there. One time, we went away for the weekend and when we came back the cat had eaten Creepy. A time later we got more fish. These I don't think I named, or I don't remember their names. There was a day I forgot to feed them. They didn't die. I wondered how long they could survive without fish flakes. Turns out a very long time. At first glance, a tank seems like a closed system - an entire world. But a closed system is self sufficient, no descending hands. For ourselves, we imagine the hands are inside the tank. The hands inside the tank must be willing to feed themselves, to keep the water circulating so it doesn't go stale. *You must be willing to make your world breathable.* Something you might say. Economists say that the greed that kills us will one day flip - from oil to renewables - flip into a greed for life. But this is not without cost. In a fish tank, if the water were to stop moving it would become anoxic, oxygen deprived. Guppies would be the first to go, then the Beta, then the Angelfish, until all who are left are the suckers who survive from the scum on the walls. I made all that up. I don't know which fish will die first, maybe a fishologist does. I think my point - if you care about points - is that there is an order to system breakdown. Perhaps this is the scariest of it all.

Dear Morsárkökull,

Love for Glacier.

<3 Fjóla

List of Glaciers used in the Buoy project

Drangajökull Group

Drangajökull
Kaldalónsjökull
Leirufjarðarjökull
Ljótarjökull
Reykjarfjarðarjökull
Paralátursjökull

Snæfellsjökull Group

snæfellsjökull
Blágilsjökull
Hólatindajökull
Hyrningsjökull
Jökullhálsjökull
Kviahnúksjökull

Vatnajökull Group

Austurungnajökull
Dyngjujökull



Figure 3. Name variations of Tungnafellsjökull

Fjallsjökull
Gljúfursárjökull
Hoffelsjökull
Lambatungnajökull
Morsárökull
Breiðamerkurjökull
Hagajökull (innri)
Hagajökull (fremri)

Snæfell Group in Vatnajökull

Sótajökull

Tungnafellsjökull - Vatnajökull group = no letter, green buoy Figure 3.

- Fljótsjökull - spelling variation
- Sprengisandsjökull - historic name
- Sandjökull - historic name
- Tungnajökull - historic name
- Blánýpujökull - historic name

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