Children in Absentia: Reproductive Futurism in the Era of Climate Change

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Preamble

Careful the things you say/ Children will listen/ Careful the things you do/ Children will see/ And learn/ Children may not obey/ But children will listen/ Children will look to you/ For which way to turn/ To learn what to be/ Careful before you say/ "Listen to me"

- *Into the Woods*, Sondheim, 1986

Welcome. To: *Children in Absentia: Reproductive Futurism in the Era of Climate Change*.

Please silence your phones. This is the beginning. Or is it the end?

The sections of this dissertation can be read in any order. A series of stand-alone piece that, when read together, share multiple stories and ideas. Glimmering across this dissertation are tales of absence and labor, of growing up and settling down, of temporality and media. This dissertation is for academics, educators, activists, my dissertation committee, and me.

I'd like to thank husband, wife, child, daughter, son, boyfriend, girlfriend, brother, cousin, sister, auntie, uncle, niece, nephew, mother, father, ancestors, grandmother, grandfather, elder, guru, friend, neighbor, tutor, mentor, adviser, teacher, boss, supervisor, and colleague.

And most of all, I want to thank the children.

Introduction:

Overview.

As climate change becomes an organizing frame that stories the lives of those who encounter the concepts and consequences, the connection between thinking about climate change and thinking about children becomes increasingly obvious. In tandem, as people grow aware of and react to climate change it transforms how they see themselves in relation to the environment and shifts the stories they tell themselves about their future and the future of humanity. In this dissertation, the stories focus on Anglospheric publics who have been pushed to re-think their generational roles in relation to climate change.

Across the globe, climate activists echo the same sentiment: we do it for our children and for their children's children. As logical necessities to extend species survival, particular figurations of the child serve as a symbol for humanity—an "anchoring point" which collects desires and holds potential for action. From the 19th and 20th century Western childhood became viewed as a time of innocence before adulthood. Following Carolyn Steedman (1998), the idea of the child became a cipher for the future adult and the future of the species. Ideations of the child collide with ideations of the climate crisis; and in doing so, these ideations enter into a co-constitutive relationship in which each orients understandings and actions on the other. In the face of environmental catastrophe, children, both real and imagined, have come to represent what Rebekah Sheldon (2016) calls a safe passage into the future through the promise of another generation. At the same time, the view of children as key political actors is becoming central to climate narratives as young activists gain prominence.

This dissertation focuses on child-centered contemporary climate activism—both activism that features children as the motive for action and that which features children as

political protagonists. Contributing to scholarship in curriculum studies and environmental humanities, I examine how children are positioned in the political project of addressing climate change and how social actions around climate change affect ideas about children. My central question is: *What does it look like when "the child" is politicized in climate activism?* I ground this far-reaching question in two cases of climate activism deliberately chosen to contrast different ways of positioning "the child": one case treats the *absence* of children as political action, while the other focuses on their *presence* as political actors. The first case explores how movements such as "BirthStrike " explicitly position the decision to not have children as a political response to climate change, calling on women to 'strike' from childbearing and childrearing. The second case examines the worldwide climate focused school strikes that began in 2018, organized and carried out by youth activists. In both cases, activists advertise their withdrawal from institutional pillars of normalcy—parenting, schooling—to highlight the abnormality of climate change. By examining these two cases, I aim to highlight complex arrangements between present and future generations, in which children are both subjects and objects, capable of making change yet objectified by their predetermined purpose.

Across these articles, I aim to rethink fundamental assumptions and examine how oppressive logics (e.g., capitalism, colonialism, and sexism) drive environmental crises. Children, in thought and practice, form a critical nexus for assumptions and oppressive logics. In response, my dissertation aims to reconceptualize children and reconfigure hierarchies of perceived knowledge and superiority. In particular, focusing on the mutually constitutive ideas of "children" and "climate crisis" offers a rich intellectual space to enrich the narratives of climate change, question core assumptions, and inform new strategies that re-frame children and the reproductive and educational discourses through which they are often defined.

Significance.

The ongoing scholarly debates across environmental humanities about re-naming the Anthropocene (a geological epoch marked by human impact) have elucidated how climate change is not only a problem of carbon in the atmosphere, but also the product of multiple extractive, proprietary relationships. In this milieu, the universal figure of "the child" appears to lead us out of the ruins into a purer future. For climate activists in the global north influenced by mainstream U.S. environmentalism and reliant upon futuristic rhetoric, the contemporary figure of the child can be both the 'child in need of salvation' and the 'child who saves.' This commingling creates a potent brew in which "the child" can become an easy political tool, impacting the lives of real children. This image of the child competes with the temporality of childhood as an always-incomplete state; when childhood is complete it is no longer conceived of as childhood. Its impermanence, as Cindi Katz (2008) explains, "opens it up as a tremendously fertile figuration" (p. 7). No one is ever in the state of childhood for long, and during that time it is difficult to articulate and organize opposition and resistance to adult fantasies. This has led to oppressive relations undergirded by conceptions of children as non-political actors, receivers of knowledge, and emblems of innocence. In this study, these clashing ideals about what children *are* and what children *represent* are visible in climate activism, and in a social order structured around particular constructions of nature, reproduction, and futurity.

How does climate activism offer openings to re-story "the child?" In the U.S., the categorization of children as lesser-than entities in need of protection and management is foundational to the arrangement of society. As Robin Bernstein (2011) and Anna Mae Duane (2010) argue, from the seventeenth century on, racialized notions of childhood shaped democracy in the United States; the child came to epitomize "all that should exclude a subject

from citizenship." Establishing children as incapable of full citizenship paved way towards infantilizing others, such as people of color, queer people, and other marginalized communities, to disqualify them and subject them to regulation and policing. Yet as far back as 1897, John Dewey observed that societies reconceptualize children in times of crisis. Arguably, climate change is the largest crisis in human history, and activists, including child activists, are now deliberately deploying these 'mythical norms' of childhood, to borrow from Audre Lorde (1984). Rather than becoming more ever more reliant on the myths that prop up our unsustainable environmental relations, I argue that climate activism affords an opportunity to dismantle the status of the child, which is fundamental towards disrupting the categorical oppression of children and untangling the extractive and developmental logics fueling the crisis.

Contributions.

As the final requirement towards a Ph.D. in Curriculum & Instruction and Environment & Resources, I intend this dissertation to contribute to both fields as they grapple with climate crises and their impacts on earth's living creatures. To support this endeavor, I engage multiple disciplines, drawing on relevant scholarship from areas such as gender studies, kinship studies, and childhood studies. Synthesizing these divergent disciplines can help deepen climate conversations in both fields regarding how human relations in the present, and perceptions about the future, lie at the crux of the crisis. I offer a thoughtful approach to empirical analysis infused with relevant scholarly theories presented in multiple forms of writing geared towards scholars, environmentalists, and teachers.

Historically, formal education and mainstream environmental studies in the United States are fueled by ongoing settler colonial and anti-black myths as people seek to protect "pristine" lands and "innocent" children. To echo scholar Robin Bernstein (2011), notions of childhood

innocence in the U.S. prop up a much-desired fantasy of a racially neutral time and space. Yet, often maintained through raced and gendered ideals of "the child" that justify cultural understandings of obedience and immaturity, Indigenous and Black populations continue to be denied adult claims to property, legal kinship, and familial succession (see Thomas, 2015; Zaborskis, 2016). In contemporary educational systems, these ideals come into focus as young people, denied the "inalienable rights" of U.S. citizenship, "protected" by adult guardians who discipline them for transgressions. This categorical oppression extends to the more-than-human world seen as separate and lesser than, nuances to be eradicated or resources to be managed. Thus, this work aims to challenge a mainstream fixation on protecting imagined "natural" and "innocent" lands and bodies. Through empirical case studies of climate activists seeking to make change, I hope to shine light on the ways these idealized arguments can detract from the needs of people, and the lands that ensure their existence.

In this study, I aim to untangle contemporary discourses at work across education and environmental studies that reinforce ties between the figure of the child and the species. To again draw from the work of Carolyn Steedman (1998), this dissertation highlights how this linkage, between the child and species, is relatively new. As Steedman proposes, the notion of scientific growth and development are central components of the construction of the 19th and 20th century child as well as of evolutionary thought. In the early 1900s, informed by Victorian notions of sexuality, Freudian psychoanalysis propelled a vision of individual identity rooted in childhood experiences. Building on Steedman's work, Sheldon (2016) has reinforced that the connections between child and species were forged when notion that the "self" arises from within the body became prominent. This logic that humans have unique interior selves, distinct from other-animals, put children on a developmental path that measured them against a norm and thus made

the figure of the child "a mode of timekeeping" (Sheldon, 2016, p. 3). Climate change, framed by technocratic expertise, calculations, and predictions, is often presented in a globalized planetary view that implicitly frames issues as beyond the realities of race, nation, and previous understandings of time. This view allies well with contemporary ideals of the universal child as a developmental figure that moves towards a future in need of management—what Sheldon (2016) calls "a piece of the future lodged in and under the controlling influence of the present." Increasing understanding about these connections can underscore the newness and contingency of this child-figuration. This opens space to shift practices built upon assumptions that the species and the self are contained and bounded units, which disregards the porousness of the environment, and that people are never fully formed and always becoming, regardless of age.

Additionally, my unique and multidisciplinary approach serves as a contribution, demonstrating one way to bring seemingly disparate fields together. This multidisciplinary work is possible thanks to numerous activist scholars who came before me, creating multidisciplinary academic spaces (for instance the numerous U.S. students and faculty in the 1960s and 70s who staged protests and changed policy to create Gender Studies, Black Studies, American Indian Studies, etc.). These scholars, activists, and departments have, as Cindi Katz (2001) has argued, "reconfigured the contours of knowledge" (p. 520). The creation of such multidisciplinary departments expanded the boundaries of legitimation to include new and exciting objects and methods inquiry. Building on this lineage, I draw from various literatures to expand discussions around reproduction and climate. A multidisciplinary approach enables me to see the assumptions that continue to circulate *within* fields and make arguments *across* fields while remaining legible and relevant. To identify and dispel the notions of innocence and nature at the heart of education and environmental studies, it is necessary to engage different perspectives and

disciplines to gain familiarity with how these issues manifest and transmit in idiosyncratic and often inconspicuous ways.

Underscoring these contributions and serving its own contribution, to answer questions as sprawling as the ones proposed here, I deployed a multidisciplinary approach to inform my use of the diverse range of qualitative methods in conducting this expansive analysis. I followed 'lines of interest'[2] germane to my overarching topic and chose methods grounded in open-ended processes to drive the values behind this study. I brought in specific methodological tools to conduct my case studies, considering the fluidity of the objects of inquiry, the complex socio-historical contexts, and the multimodal nature of the data. The methods I utilized helped me maintain a place of exploration that accounted for my aesthetic preferences and imbrication in these topics. This dissertation embraces an artisanal approach to methods and thereby demonstrates an intentionally creative approach to empirical analysis. These methods are outlined in greater detail in the Methods Appendix.

In addition to scholarly contributions, this dissertation includes writing geared towards environmentalists and teachers to support their critical thinking about the historical contingency of present-day notions of the child and climate change and to help them reflect on how these notions might shape their thoughts and actions. First, teachers in the U.S. work within systems that are deeply informed by contemporary views of the child; yet it appears few are given space to critically reflect on the figuration of the child that informs their assumptions about teaching and their treatment of young people. I hope this work enables teachers to question the presumed roles of teacher/learner and the boundaries between child/adult. As Sarah Chinn and Anna Mae Duane postulate (2015), "the child" can estrange us both from children as well as "from the belief that we know when childhood begins, how it operates, and where it ends" (p.24).

Introducing these concepts to teachers might offer both sides of the adult/child divide some respite from constraining assumptions around what childhood entails and adulthood demands. Second, and in tandem, the rise of mainstream environmentalist movements in the mid 20th century propagated many of the myths about the child and the environment addressed in this study. Thus, I aim to reach environmentalist audiences to remind readers of this history and demonstrate the value of locating overlapping spaces between children and climate activism. By focusing on these intertwined associations, I hope to support environmental stewards and activists in expanding their visions of the future through a re-examining of their present-day assumptions. As environmentalists and teachers' bear some responsibility for propping up similar myths, critically, addressing both audiences with these multidisciplinary topics can support a reconsideration of how they advocate and support young people and the environment in which they live.

Lastly, as I wrestle with diverse feminist commitments to fertility and population, to children and family, I aim to support continual shifts away from oppressive fantasies. As this is an ongoing endeavor, I intend to use this project as a beacon, seeking out new collaborators and mentors interested in intersecting subfield such as reproductive sociology, cuteness studies, Scandinavian studies, and social media studies. For me, these lines of inquiry have only just begun. In the following sections, I first propose my conceptual framework and then build upon this framework through two case studies.

Article Synopsis.

This first article, titled *Future Child: Pedagogy and the Post-Anthropocene* and co-authored with Chessa Adsit-Morris, has been published in a special issue of the *Journal of Childhood Studies* on Interdisciplinary Dialogues in Early Childhood Environmental Education,

edited by Dr. Fikile Nxumalo and Dr. Nikki Rotas. This article builds the conceptual and theoretical foundations for the dissertation, aiming to reconceptualize the climate crisis by engaging with the literature on the Anthropocene, drawing inspiration from those working to imagine qualities of possible eras for the post-Anthropocene—imaginaries that do not deny the material histories and urgencies of the present in the service of an "after." For many, the Anthropocene foreshadows the apocalypse: a fertile terrain to speculate about the future, which can displace the now. In response, this article seeks to transform the ways children are figured in this epoch by exploring how figurations of the child tap into environmental futurism. We, Lakind & Adsit-Morris, call for a pedagogy of the post-Anthropocene which rejects future-orientations that negate children as bearers of their own experience and agents of their own purpose.

The first case study shifts gears from focusing on children to focusing on 'the childbearing woman.' In the article presented here, *"I'm Petro-fied!" Climate Activists and the Politics of Make Kin Not Babies*, I explore abstaining from childbirth as an environmentalist tactic to galvanize people to combat climate change. Drawing on a multi-year comparative case study of two climate activist organizations centering their work on the threat climate change poses to their reproductive futures —Conceivable Future and BirthStrike—this article looks at the discursive limits of reproductive futurism. These activists' grievances are formed around visions of the future that constrain how they make claims in the now. Due to the unimaginability of being legible without refencing this reproductive order, fueled by ongoing structures propelling family and population control frameworks, I argue that these activists uphold the economic systems and settler colonial property relations undergirding the climate crisis. In their calls to save the family, they invoke a future as deadly as the present. To

think at the limits of these arguments, I analyze the representation of these groups through Donna Haraway's provocation to *Make Kin Not Babies*.

In the second case study, I present two articles written for the general public. Taken together, these pieces illuminate the sophisticated nature of youth climate activism. Drawing on an analysis of Instagram, driven by the fact that social media is a primary mode of communication for youth activists, I gained insight into the ways youth are proposing a more justice-driven and relational approach to environmental activism. In the first essay, "Remixing Environmental Icons for a Better Future," published in the magazine *Edge Effects* for Earth Day 2020, I examine existing idioms from environmental visual rhetoric to demonstrate how icons of the *Innocent Child* and the *Ecological Indian* have been used by mainstream campaigns and corporations to place environmental responsibility on the individual and consumer. I read the residues of these icons in a recent image (found on Instagram) of celebrity activist Greta Thunberg in the Standing Rock Reservation. I describe this image as a remix of Romantic Euro-Western conceptions of childhood and colonialist notions of Native Americans as peaceful, wise, and closer to nature.

The second piece from this case study takes the form of a book chapter. "Reading the Youth Climate Movement" will be published in a forthcoming collection edited by Rebecca Young called *Literature for Change: How Educators Can Prepare the Next Generation for a Climate-Challenged World.* In this chapter, I suggest that there is a new canon of literature created by youth; this canon shows the vast interconnectedness between issues of climate change and social justice emerging thanks to countless new texts they publish and share through social media. I highlight how youth activists proffer a view of climate change as a crisis of intersecting unsustainable systems that cannot be addressed with a narrow focus on carbon in the

atmosphere. To engage with this canon, I offer a literary composition activity to incorporate social media and spoken word into classrooms. Throughout this chapter, I aim to position educators as allies of the youth climate movements' efforts to advance intersectional visions of climate justice.

Aims.

The climate crisis is not one thing, not a universal problem of some imminent, singular apocalyptic event. It is a name for myriad interwoven consequences arising from fossil fuel dependency and deeply unjust ways of relating to humans and more-than-humans alike. Across these articles, I argue that attending to children in the here-and-now is essential to the pursuit of a just and livable future, and requires dismantling problematic assumptions about age, agency, and reproduction. To achieve this, I consider what it might it look like to refuse "the child" as a stand-in for the normative fantasy of futurity that organizes communal relations.

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Conceptual Framework:

Future Child: Pedagogy and the Post-Anthropocene[1]

There's something uncanny about the very word Anthropocene. Perhaps it is in the way it seems to arrive too early and too late.... Perhaps it is that it seems to implicate something about the "human" but from a vantage point where the human would be over and done with, or never really existed in the first place. ~ McKenzie Wark, *Molecular Red*

At the UN-convened Rio+20 Conference on Sustainable Development, hosted in Rio de Janeiro, Brazil, in 2012, a short film was screened for all 45,000 participants: *Welcome to the Anthropocene*.[2] The film opens with the iconic image of earth-from-space snapped by members of NASA's Apollo 17 mission in 1972, spurring the beginnings of the mainstream environmental movement. Yet the image in the video is overlaid with a graph—a straight line constantly moving upwards, soon to be out of frame, off the charts, unpredictable. The line follows the linear trajectory of Man's increasing impact on earth, from the invention of the steam engine, to the Great Acceleration, to the capitalistic globalization of material processes and technological networks. The image morphs into a digital illustration of the earth as a vast, interconnected technological system,[3] and the narrative shifts to one of hope for future generations, concluding with the statement "We have shaped our past, we are shaping our present, we can shape our future" (Gaffney & Pharand-Deschenes, 2012, n.p.). The globe: a singular shape floating in the dark, vast uncertainty of space, now conceived as a unified network of relations, illustrating a

[1] Lakind, A. & Adsit-Morris, C. (2018). "Future Child: Pedagogy and the Post-Anthropocene". *Journal of Childhood Studies*, 43(1), 30-43. The text here has been minorly revised and updated.

[2] The film *Welcome to the Anthropocene* (2012) was commissioned by the Planet Under Pressure conference. The film is "part of the world's first educational web portal on the Anthropocene," developed and sponsored by anthropocene.info.

[3] This visual shift is also described by T. J. Demos (2015) in his blog post "Welcome to the Anthropocene!" in which he describes how the film "offers an authoritative voice-over commentary that narrates a shifting data visualization of the globe, showing schematic networks of light trajectories that reference energy, transportation and communication systems" (https://www.fotomuseum.ch/en/explore/still-searching/articles/27011_welcome_to_the_anthropocene). The schematic network image of the globe used in the video is also the same as the image Demos uses on the cover of his new book *Against the Anthropocene: Visual Culture and Environment Today* (2017).

unifying global perspective—we are in this together—one planet, one species, one Anthropocene. This icon, and the accompanying voiceover in the video, uses this "all one" universality to flatten and dissolve difference: It is hard to be all one without being the same.

The Anthropocene, a geological epoch defined by human impact on earth, may be a productive concept; however, it may (as we and others argue) function as an all-encompassing ideology—what Jedediah Purdy (2015, para. 12) describes as an "all-purpose projection screen" amplifying preferred (capitalistic and techno-scientific) narratives of human exceptionalism, provoking heroic thinking and high stakes rhetoric "of the human mind pressed up against the wall of apocalypse." The Anthropocene is a universal call to humanity, rather than a focused critique of the vast inequalities regarding who uses resources, who is most at risk, and who is privy to this concept. The Anthropocene comes from the Global North, a geographical designation disproportionately responsible for both the creation and exacerbation of environmental issues and their framing, affecting how we come to know the crisis, imagine it, and respond to it. The Anthropocene, akin to mainstream environmentalism in the United States, invokes visions of universal risk and vulnerability wherein *everyone* is implicated. Yet *everyone* is too often depicted as white and middle class, erasing the complex and intertwined histories of colonialism and capitalism that manifest in present-day issues of inequality and social/environmental injustice (Dunaway, 2008, p. 69). As Rob Nixon (2014, p. 3) reminds us: "We may all be in the Anthropocene, but we're not all in it in the same way." The concept of the Anthropocene has taken hold in academic and popular culture (Schneiderman, 2015), but for those who fear a universalizing species narrative or Eurocentrically framed conversation, the term has given pause (see, for example, Demos, 2015, 2017; Haraway, 2016; Moore, 2015, among others). Bruno Latour (2013, n.p.) remarks that there is no "global globe," no unified

container to hold the multitude of concerns that have assembled to replace the politics of nature. In response, then, we must start asking what Métis scholar Zoe Todd (2015, p. 244) asks: "Whose space is this and who is not here?"

The following pages invite a reconceptualization of this era, drawing inspiration from those working to imagine possible eras for the post-Anthropocene—imaginaries that do not deny the material histories and urgencies of the present. To cease our continued culture of environmental destruction, this paper argues for a reconceptualization of childhood and a transformation of childhood pedagogy. We begin by unpacking our figurative methodological approach. Subsequently, we probe the *child-as-idea* to examine how our conceptions of child[4] are tied to understandings of nature, normativity, and futures premised on unsustainable and unjust expectations. We aim to challenge the complex and contradictory conceptions of *child in the Anthropocene*, the *child-in-need-of-saving* and the *child-who-saves*. Second, we probe conceptions of childhood pedagogy in order to shift long-held assumptions about nature, culture, and development to open unrealized possibilities and nonlinear trajectories. The resulting conception of a post-Anthropocene pedagogy resists certain discourses of responsibility and the linearity of growth to combat an over emphasis on predetermined ends conceived of in advance. This requires dismantling the allegedly clear boundaries between children and adults (Halberstam, 2011), unchaining normative connections between nature/culture and past/present/future to envision a pedagogy that obliges everybody to "take a detour, find a limit, lose our way," as Halberstam (2011, p. 121) advises. In other words, this post-Anthropocene pedagogy is not about what we do with/to children; rather, it hinges on (re)conceptualizing

[4] Following Murris (2017, p. 16) we have written "child" as opposed to "the child" to write about the concept of child while distancing ourselves from writing about the child as a contained "bounded entity in space and time with a set of essential and universal characteristics (often resulting in the marginalization of children)."

childhood and the associated norms we uphold or dismantle. It is about, as Hesoon Bai (2009, p. 147) explains, the logics with which we approach and enact whatever we are doing or not doing.

Response-able Methods of Inquiry for "After" the Anthropocene

We engage Isabelle Stengers' (2010) appeal to slow down by using a concept-as-method approach (St. Pierre, 2014, p. 7)—that is, using concepts to slow and reorient one's thinking. The Anthropocene, as a theoretical concept and as a representation of material urgencies, calls into question our most fundamental, "most cherished" structures: nature, time, reproduction, child. It brings to light what Kathryn Stockton (2009, p. 3) has described as "child-as-idea" signifying a host of contradictions, including reproductive futures, purity, revolution, incapacity, and becoming (Meiners, 2016). This paper argues that imagined environmental futures are fused with reproductive futures, intricately connected to heterofutures, based on underexamined assumptions that instrumentalize children toward the perpetuation of a selfsame future. We move from the concept-as-method, utilizing the concept of *child in the Anthropocene*, toward the figuration of child.[5] We follow lines of interest (or, in Deleuze and Guattari's [1987] terms, lines of flight) rather than a territory partitioned into domains of study (Ingold, 2013)—drawing on interdisciplinary postcolonial, poststructural, and feminist understandings—taking us to figurations of *child* and the pedagogical implications therein. Following Donna Haraway, we utilize figurations—tropes or figurative metaphorical beings found within specific cultural traditions—to challenge existing taken-for-granted notions and habitual practices of thought. As opposed to concepts, figurations are where the imaginary meets the ordinary everyday; figurations are not "didactic illustrations, but rather material-semiotic nodes or knots in which

[5] Haraway (2004, 2008a) creates new powerful figurations (e.g., cyborg, dogs, OncoMouse™, and other companion species) to work/think/play with in order to challenge existing taken-for-granted notions and habitual practices of thought. The conception of Child we critique in this article is prominent in the West, drawing on culturally situated tropes that do not represent the multiplicity of notions within and across geographical and temporal boundaries.

diverse bodies and meaning co-shape one another" (Haraway, 2008, p. 4). Figurations have agency, history, and a life of their own.

The Anthropocene narrative has also spurred what Mark Grief, in his study *The Age of the Crisis of Man* (2015), calls a "discourse of responsibility"—which Purdy (2015, para. 13) defines as a strain of language that responds to geopolitical and environmental threats "with a blend of urgent language and concepts (or pseudo-concepts): responsibility, the fate of man." Yet, this responsibility is displaced *onto* future generations, which justifies actions that take responsibility *from* and *for* future generations. Thus, this paper is calling for a shift from an overemphasis on responsibility, to encourage *response-ability*. In *Staying with the Trouble* (2016), Haraway writes of *response-ability* as a call to be responsive and directed toward justice and sustainable belonging. For many, the Anthropocene foreshadows the apocalypse: a fertile terrain to speculate about the future, propelling predictions of an emergency in the making. Contrasting this, we argue for an energizing *urgency*, which Haraway (2016, p. 37) contends has different temporalities than emergency, because it no longer connotes narratives of oncoming apocalypse or crisis. In an emergency, we rush to secure what we have deemed important: We aim to preserve our health, protect our property, determine safe passage for women and children. However, as Haraway (2016, p. 1) extrapolates, crisis "does not require a relationship to times called the future." Drawing on these understandings, we began to speculate a post-Anthropocene pedagogy, inspired by Haraway's notion of *response-ability* envisioned in her first explicit references to education, specifically in her book chapter "The Camille Stories." We hope to inspire, as Haraway (2016, p. 149) imagines, the circumstances under which children might foster the creation of complex subjectivities, become response-able multispecies collaborators,

and initiate creative interdisciplinary practices aimed, not only at learning to live (and die) on a damaged planet, but at imagining and creating spaces of refuge for a future we cannot predict.

Reproductive Futurism, Nature, and Child

Children are enmeshed in our conceptions of time. Childhood (for adults) is at once future oriented and nostalgic, composed of imaginaries replete with underexamined assumptions, as adult anxieties—*ontological insecurities*—fixate on creating determinable pasts and futures. Childhood is already an always-incomplete state (Castañeda, 2000). Children are perceived as not fully formed (pre-adults) outside the normative (adult) subject, which is perceived as complete and fixed. Its indeterminacy and plasticity, as Cindi Katz (2008, p. 7) explains, "opens it as a tremendously fertile figuration." To adults, children are repositories for adult fantasies (James et al., 1998; Steedman, 1985). Intensified via Anthropocene narratives of past, present, and future loss, adults cope with anxiety by "securing children's futures and producing perfect childhoods" (Katz, 2008, p. 6). Adult desires to protect children (from adulthood) or prepare children (for adulthood) employ notions of childhood as it *should* be to protect authentic nature in the lives of real children (Taylor, 2011). Yet, notions of nature are historically situated and unsettled.

By the end of the 18th century, Rousseau had inspired the notion that children were representatives of a nature that was true, neutral, and universal: "the locus of essential goodness" (Taylor, 2011, p. 422). While pagans saw nature and the divine as united with the human and not necessarily as purely or innately good, the rise of urban society sparked new moral concerns which justified the separation of nature and the divine from humans, and reimagined nature as good, absolute, and pure (Bell, 2018). In contrast to Puritanical notions of children as sinful, for the Romantics, children offered a way back to this version of nature. Importantly, these

influential Aristotelian and neo-Aristotelian perspectives saw children as qualitatively different from adults. According to Andrew Stables, differentiating children from adults shifted the way *child* is included, excluded, and implicated in the all-encompassing categorical. Child came to mean not yet ready, or classified by an age when rights are not conferred. Within this distinction, as Stables (2008, p. 89) writes, child is understood to be "insufficiently developed for immersion in society, or (on the Romantic account, still popular among child-centred educators), as too good for it."

Throughout the 19th and 20th centuries, children became an important political site submerged within the term natural (Baker, 2001; Fausto-Sterling, 2000). The presumed separation between nature and culture reconfigured childhood as something that could be influenced by the outside environment. As Carolyn Merchant asserts, capitalism wrought newfound hopes of controlling destiny. Nature became conceived of in mechanistic terms, as resources to assemble and dominate (Merchant, 1980). Children represented another natural resource: empty vessels waiting to be filled, resilient yet innocent, like virgin soil yet to be corrupted, polluted, or sexualized. They were no longer smaller versions of adults, but *future* adults (Baker, 2001). Contemporary scholarship across disciplines has challenged notions of the natural as absolute, ongoing, and sublime, elucidating ways in which humans perceive the natural environment to erode the categorical distinction of nature/culture (see Cronon, 1995; Denevan, 1992). Yet, the legacies of complex and often contradictory beliefs remain. As questions of modification, labour, and activity collide with materiality, so too does the nature/culture divide, yet the *Wilderness Debate Rages On* (2008), and 19th- and 20th-century notions of childhood linger in ideas of "human control over the future" (Baker, 2001, p. 64).

In the 21st century, tethered to a future that we cannot predict, children are a resource to rescue us from the "future we (adults) threaten" by functioning as "the connection to nature we (adults) have corrupted" (Sheldon, 2016, p. 39). To envision (or make) an imagined future safe, children are figured as denizens of nature—and more so of *naturalization*—naturalizing futurism to provide an uncertain future with orderliness and meaning. Entangled with views of reproduction as the basis for life, children symbolize the natural order, normalizing (and regulating) the boundaries of personhood, as Judith Butler (2014, p. 426) reasons, "making persons according to abstract norms that at once condition and exceed the lives they make—and break."

Drawing on Lee Edelman's (2004) *No Future: Queer Theory and the Death Drive* and Rebekah Sheldon's (2016) *The Child to Come: Life After the Human Catastrophe*, this paper extends from Edelman's critique of the universal politics of "reproductive futurism" and Sheldon's analysis of child as a symbol (and tool) for humanity, framed as the answer to environmental catastrophe, the force that will "coordinate our safe passage into the future" (Sheldon, 2016, p. vii). Children, linked to species survival, might be conceived of as the mechanism to overcome planetary threat—a shift in perspective historically coincides with the Anthropocene's first articulation, as Sheldon (2016) asserts. Edelman's invective against heterofuturity highlights how imaginaries of the sacrosanct child disadvantage the queer, who are framed as antithetical to the essentialist assumptions upholding nature and children as natural and good. Edelman, as a queer person, situates himself outside such supposed social and biological norms upheld as "good," occupying an athwart (Probyn, 2016) vantage point to perceive the political processes that beguile children into maintaining social norms. Thus, while Edelman rejects this figuration of child, he may see himself aligned with actual children who are

also not able to choose for themselves what they represent. For Edelman, futurism itself—the drive to guarantee that our social reality will persist even after we're gone—is the underlying culprit aiming to maintain civilization *as is*.

The Future Is Not for Everyone

Child (like "science" or "nature") is widely understood as "race neutral," concealing how contemporary configurations of childhood are highly racialized. As Robin Bernstein's *Racial Innocence: Performing American Childhood from Slavery to Civil Rights* (2011) details, racialized childhood was central to the 16th- to 19th-century movements that shaped representational democracy in the United States. Child, defined as unable to consent in relation to the rational adult male, came to represent everything that should prohibit a subject from citizenship (Duane, 2010). During this time, child became the embodiment of innocence, distinctly envisioned as white: As Robin Bernstein (2011) writes, "The doctrine of original sin receded, replaced by a doctrine of original innocence" (p. 4). Innocence negates experience, while a figure free of a past undergirds educable heterofutures (Stockton, 2009). Likewise, to sustain a future predicated on the white, able-bodied man of humanism (Braidotti, 2013), environmental futurism often relies on imaginary pasts filled with pure and pristine conceptions of nature, displacing untidy or disordered histories that might conflict with maintaining (Western) civilization. Yet, the United States was not an untouched wilderness, but the result of a violent restructuring of indigenous ways of life (Rifkin, 2011). Natives were assessed as childlike (i.e., incapable and underdeveloped) to justify the United States as "parent" nation in order to normalize, naturalize, and enable claims on land, property, and inheritance (Smith, 2010; Zaborskis, 2016). Moreover, compulsory colonial models of kinship dismantled preexisting collective decision making and multispecies relationships to serve white settler communities.

Indeed, the United States conceptualizes and partitions resources to maintain white heteronormative futures. As a white privilege, innocence is systemically denied to brown bodies (Meiners, 2016). This structure guarantees failure of nonwhite bodies to become part of a desired and/or imposed reproductive future and to transition into civic and economic personhood: to vote, own a home, etc. As Jose Munos (2009) notes, if childhood is countered by an adulthood of white futurity, many children of colour are never able to "grow up."

Goaded by increasing environmentalist calls to forestall catastrophe for the sake of the children, *child in the Anthropocene* relies on prescriptive, unsustainable, and unjust ways of relating to the future. Placed within white supremacist colonial ambitions, reproductive futurism preserves exclusionary ideologies alongside extractive and propriety relationships to the land and one another. Anchored to notions such as "generational shifts" (e.g., father to son), reproductive futurism maintains norms organized around historical (settler) conceptions of progress and change. Adults instill children with stability to carry them into the future through deep-rooted (hetero)normative and racialized logics. As Haraway (2016, p. 1) describes, the present and past are cleared to make futures for coming generations, drawing lines of flight through settler colonialisms' temporal elimination tied to relations of erasure between the past and future, employing what Eve Tuck and Ruben Gaztambide-Fernandez (2013, p. 73) call the "curriculum project of replacement." Tuck and Gaztambide-Fernandez draw on Andrew Baldwin to illustrate how futurity relates to the ways that the "future is rendered knowable through specific practices (i.e., calculation, imagination, and performance) and, in turn, intervenes upon the present through three anticipatory logics (i.e., pre-caution, pre-emption and preparedness)" (Baldwin, 2012, as cited in Tuck & Gaztambide-Fernandez, 2013, p. 80).

Growing Futures

In the field of education, particularly early childhood and environmental education, the garden as a metaphor for growth has been widely and historically used to foster practices that manage, nurture, cultivate, tend, and plot children's growth into the future. While it is not new to compare children to plants, as Rousseau did, emergent critiques link plant/animal control with human control (Bonnett, 2009) to demonstrate how the desire for "perfection in gardens and people [is] rooted in an ongoing struggle against 'difference'" (Subramaniam, 2014, p. 6). Gardens are employed to maintain civilization: citizens grow food to prepare for survival; national parks uphold empire; wilderness is preserved on behalf of Protestant notions of the pure and pristine; and public and private lawns regulate decency and decorum (see Burns, 2009; Cronon, 1995; Denevan, 1992; Robbins, 2007). As Julia Ostertag (2015) detailed, there has been a long history of gardens being used in colonial, military, and political regimes, including in Nazi Germany, the Canadian residential schooling systems, and so-called victory gardens grown in many countries during World War I and II (also called "war gardens" or "food gardens for defence"). Natasha Myers (2016), through her research on gardens and plant/people involution, discusses how the aesthetics and politics of gardens perpetuates the extractive and colonial logics of capitalism and fosters apocalyptic imaginaries. While there is much to learn from gardening—relating to the material and more-than-human world, including ways to encourage anticolonial resonances (Nxumalo, 2016) and the open embrace of caring, aesthetics, and learning by doing—the history of gardens is tied to domination over land/place/people and an erasure of nomadic/alternative practices.

Landscapes can become the catalyst for activities, challenging the dominant perception that adults must predetermine how and what materials inform learning. The Children's Museum in Santa Fe, New Mexico, has a beautifully designed garden that includes a tree house and an interactive compost heap. A large open pit was located at the edge of the garden. It was full of spare construction parts used around the property, including a pile of spare tires (see image). Several years ago, as the interim director of an outdoor summer camp for children 5–11, author Alexandra Lakind observed how children were drawn to the pit. They would run directly to the pit, bypassing the garden entirely. They loved to bounce tires and watch them tumble. The children were not predesigning a space for play; they were responding to one another and the materials around them. Soon games, characters, and collaborative roles took shape. Intuitively, the children started to answer questions: How tall might a stack of tires get? Could you arrange enough tires to jump along so that you didn't sink into the imaginary ocean? Rather than responding by closing the pit off to the public, the museum embraced the newfound play space and stepped in to support the site. With supervision, children painted the tires, built tunnels encased with adobe, and created paths to carry tires uphill and roll them down.

These designs were created in conversation with the tires, the dirt, and the steep inclines that surrounded the site. This mode of creation as reciprocal and responsive invited objects and histories to the fore. It worked against methods of design that project future (safe and humancentric) imaginaries onto the landscape. The inclines contrasted flattened sites that clear

away their past and present sedimented materializations to build projects for a predestined future. The gardens were landscaped as part of a forward-thinking, progressive curriculum. A carefully tended space to fuel development—what Myers (2016) would describe as designing for the Anthropocene—a space that hides the aestheticized histories of colonialism, labour, and capital. The garden was constructed as a playground, thought through in terms of safety and developmental needs—threats already managed, skills already envisioned. A natural and safe space for children to learn and grow. Yet, as we have already elaborated, perceived risks and perceived outcomes are caught up in predetermined hypotheses. At the museum, such predetermined (predesigned) blueprints were deprivileged, as were the naturalized normative conceptions of beauty. Instead, museum staff valued the aesthetic potential of the tires and the relational activities (games) that emerged from the landscape. The museum took their cue from children and were unconcerned that the garden often remained abandoned because of the lure of the tire pit. “Wild” connotes something lacking direction, unruly (Bekoff, 2014). Yet in this case, by following the interests of the children, a process of rewilding was created; human intervention restored spontaneity emergent from ecological systems (Monbiot, 2013). It entailed the abandonment of conventional justifications that educators place on top of these interactions. This outcome did more than simply train children in engineering, present a safe place to play, or become an example of a collaborative effort. It was a project done in the direction of interest, with materials deemed worthy by the children themselves. The museum didn’t decide what to share with children, but rather allowed children to come to their own conclusions, sharing them with the museum.

A Post-Anthropocene Pedagogy

In a pedagogy for the post-Anthropocene, we reconfigure what is considered under threat, challenging what dictates "emergency" response. In the Unites States, the educational system collapses future threats into present configurations designed to manage, measure, and anticipate risk. Indeed, we manage concerns that America is "falling behind" with STEM education; we create standardized strategies for kindergarten readiness; we implement patriotism by requiring students to repeat The Pledge of Allegiance.[6] In these systems, children become increasingly oriented toward the future, intertwined with the reproduction of social norms. Children are presumed to need training to sync with adult temporal logics. Pedagogies of linearity, to borrow from Tim Ingold (2007), convert "paths along which life is lived into boundaries in which it is contained" (p. 2). Education becomes a cypher for planning, supervision, assessment, and evaluation of predefined objectives (Dahlberg, Moss, & Pence, 2007; Lenz Taguchi, 2009; Masny & Cole, 2009). Time and space are fixed as we teach children to become the adults we want them to be: to marry and reproduce, to attain careers and enlightenment, acquire behaviours, write thank-you cards, recycle, perform chivalry. We educate for a better tomorrow. We do it for the children, for those who will supersede us, overshadowing them with what we want them to be. Toward this end, "teaching" is captured by time: The present becomes a mirage of a fantasized past and dream of a future by sentimentalizing stasis. A pedagogy for the post-Anthropocene does not deny this worrisome future, nor the resultant effects. Rather, it aims to unsettle the constraints placed on children to fulfill, preserve, or save futures *they* have yet to name, imagine, and create.

[6] In 1892, the pledge was written with the hope that it could be used by citizens in any country. In 1923, "the Flag of the United States of America" was added. In 1954, in response to the threat of communism, the words "under God" were added. Public schools require children to stand, face the flag, and put their hand over their heart to recite "I pledge allegiance to the flag of the United States of America, and to the republic for which it stands, one nation under God, indivisible, with liberty and justice for all."

The post-Anthropocene rests on a process of unlearning practices of methodological individualism to relearn practices of collective development. We are not managers, engineers, or stewards of a passive earth, nor are we the unwanted detritus of a morally righteous planet. We are entangled in an assemblage of collective vulnerability. To reorient toward a post-Anthropocene pedagogy, embracing the fluidity of *naturecultures* (see Haraway, 2013) can help problematize humanism's binary divides, such as nature/culture, child/adult, and theory/practice, to trouble child subjectivity, queering the nature of identity and individual existence (Murris, 2017). Instead of being answerable to our norms and pregiven codes, a pedagogy for the post-Anthropocene encourages the ability to ask, openly and in accordance with the complexities and indeterminacies of unpredictable affective conditions. In other words, it is a situated practice of cocreation that invites new ways of relating, a vision of environmental education where, as Lucie Sauvé (2009, p. 325) writes, "being here" is situated "now." This resistance to futurism and a predetermined future is not to follow Edelman down the pessimistic path of "No Future," but to avoid preemptively orienting toward it, and to avoid "the tyranny of a life already represented as 'is'" (Rotas & Springgay 2013, p. 6). The key, pedagogically, is to stay open "to the surprising possibilities that emerge from the constant, undetermined nature of reality" (Pacini-Ketchabaw & Nxumalo, 2013, p. 19). The shapes of desire can be infinite, but if constrained plots dominate the scenes of proper fantasy, children lose agency to follow their desires and orient toward something *they* find meaningful. This pedagogy is not a disavowal of the future, but of future-orientations that negate children as bearers of their own experience and agents of their own purpose.

Emily Beausoleil (2015) succinctly explains the difference between a responsibility embedded in our punitive approaches to accountability and a responsibility of responsiveness—

response-ability. Rather than a system wherein people are "*held* to account" and assessed in relation to fixed terms, response-ability is "enacted in the pulse and pause of attentiveness" (p. 2, emphasis in original). This is about looking to the future without having an answer of what it holds. As Karen Barad (2012, p. 69) says, "responsibility, then, is a matter of the ability to respond"; it is about correspondence with the world: a model of seeing into the future by looking where you are going (Ingold, 2013). Haraway (2015, p. 257) describes response-ability as "that cultivation through which we render each other capable." To render children able, we need to abandon the tropes of "mother nature" needing protection/taming, corresponding to justifications of control over children conceived of as innocent, weak, unpredictable, and/or undisciplined. Sianne Ngai (2012) asks if "cute" is a way to aestheticize powerlessness. The cute object is most fully itself when weak and in need of protection, and is often politicized through propaganda regimes—the helpless starving child, the vulnerable polar bear cub, and the clumsy baby penguin. To render cute as capable, instead of being infantilized (drawing on conceptions of infants and baby animals as incapable beings), we might instead intimate ongoing care and learning together.

In a pedagogy for the post-Anthropocene, preparedness is not the concern; rather the concern is the rigid and fixed way in which we prepare, and for whom we prepare, and toward what end. A post-Anthropocene pedagogy invites postcolonial and postdevelopmental perspectives to reject universal stages of childhood and examine how the effects of colonization are deeply intertwined with our understandings of nature and what's "natural" (Cannella & Viruru, 2004; Pacini-Ketchabaw, 2014). In the pedagogy we're proposing, predictable adulthoods are not the goal, regardless of the approach. Children, whether managed or left alone, refigured for the post-Anthropocene, become response-able collaborators toward living (and

dying) on Earth. Once again, this is a reminder to *learn from children*, whose everyday life is, as Katz (2008, p. 9) describes, "suffused with social relations that can exceed commodification, evade colonization, and recreate the means of existence and subjectivity in new registers." We, like Edelman, make a firm distinction between philanthropy and love, where love is not driven by obligation. We are not obliged to "help" children, but rather to codevise alternative life narratives and new forms of kinship. In the post-Anthropocene, the emphasis is on relationships of reciprocal care, always more than one way, and never self-sufficient, because as Rosi Braidotti (2006, p. 93, emphasis in original) reminds us, "'We' are indeed in *this* together."

Speculative Imaginaries for the Post-Anthropocene

Welcome to the Anthropocene closes with a warning: "We must find a safe operating space for humanity for the sake of future generations." The film's oral and visual narrative deploys a performative imagery of earth that reduces the complexity and urgency of our present moment. The earth appears whole, still, and isolated, making life itself seem fragile, vulnerable, and in need of protection. In this setting, children are reasoned in relation to the future and depicted as the basis for hope, a symbol for humanity. As logical necessities to extend species survival, children (and their reproduction), when conceived (theoretically), become a focal point for planetary futurity. As the film continues, the narrator states: "We are the first generation to realize this new responsibility" (Gaffney & Pharand- Deschenes, 2012, n.p.). It seems that the Anthropocene, following McKenzie Wark (2016), is a term that arrived too early and a warning that arrived too late. Following Myers (2016), we believe we need not wait for the ledge for the after:

> The "after" in this formation does not circumscribe a time-bound era, some later epoch or period on the other side of apocalypse or ruination. Rather the "after" [or "post"] marks what might come in the wake of Anthropocene thinking, once this concept has been set in motion. (p. 5)

This paper engages with thought and theory after the concept of the Anthropocene has done its job of troubling the waters. In the wake of the Anthropocene, we imagine and foster response-ability, encouraging exploration, a chance to "venture off the beaten path to meet the unexpected, non-natal kin, and to strike up conversations, to pose and respond to interesting questions, to propose together something unanticipated" (Haraway, 2016, p. 130).[7] This is an ethical refiguring, not about a *right* way, but about—as Barad (2012, p. 69) extrapolates—"accountability for the lively relationalities of becoming, of which we are part." For, to make a livable world, a backward glance at human impact on earth and a hopeful glance toward future generations is not enough. We need new imaginaries and new collective practices.

We subscribe to an energizing *urgency*, envisioning a pedagogy that obliges everybody to venture off the beaten path to meet the unexpected. In other words, this post-Anthropocene pedagogy is not about what we do with/to children. Rather, it hinges on (re)conceptualizing childhood and the associated norms we uphold or dismantle. We need alternative imaginaries for the near term (i.e., within the next 100–200 years), when humanity will be in the midst of dealing with the effects of climate change and the struggle against capitalism, instead of the postapocalyptic "doom-and-gloom" stories that don't include imaginaries for grappling with these crises. Haraway (2011) illustrates such an imaginary in her SF[8] book chapter "The Camille Stories," through which she explores "oddkin and multispecies reproductive justice." The

[7] Feedback on this article from Dr. Sara Hotchkiss provoked us to wonder whether the Anthropocene as a cultural phenomenon has an earlier end than the geologic Anthropocene. If a cultural shift creates changes in human and more-than-human co-creation, perhaps this would also contribute to the ending of the geologic era.

[8] As Haraway (2011, p. 12) writes, "SF is that potent material-semiotic sign for the riches of speculative fabulation, speculative feminism, science fiction, speculative fiction, science fact, science fantasy—and, I suggest, string figures." Haraway playfully uses multiple meanings of SF games to dismantle the fact/fiction binary, drawing connections through the various practices of creating and imagining reality/stories/worlds, "practices of scholarship, relaying, thinking with, [and] becoming with" (Haraway, 2011, p. 15). Haraway (2011, p. 12) adds: "In looping threads and relays of patterning, this SF practice is a model for worlding. Therefore, SF must also mean 'so far,' opening up what is yet-to-come in protean entangled times' pasts, presents, and futures."

Camille Stories take up the task of addressing multispecies environmental *and* reproductive justice, particularly the challenge of reducing human population levels. She aims to do this without perpetuating the legacies of Malthusian and neo-Darwinian stances—regulation of sexuality through perceived evolutionary truth and overpopulation seen in terms of socio-political conditions—which remain problematic (Gosine, 2010). In the name of population control, people in the United States (particularly poor, disabled, and/or nonwhite women) have been sterilized and denied reproductive and parenting rights (see Roberts, 1997). Furthermore, developmental logic positioning the Global South as immature has storied overpopulation as a problem caused by people in countries that have yet to industrialize who might "push us over the brink" (Sturgeon, 2010, p. 124; Gosine, 2005). Both in the United States and abroad, reproductive nonwhite sex is suspect, embroiled in a complex dance around environmental concerns and evolutionary narratives. Haraway does not propose answers, but attempts to address this taboo territory by imagining one particular possible worlding. The story traces five Camilles from 2025, when human populations reach ten billion, to 2425, when human populations have dropped to three billion and biodiversity on earth has been reduced by half. Each new child born is paired with a species symbiont and genetically modified to take on biological aspects/features of that species.

Haraway's (2016, p. 6) call to address the "Great Acceleration of human numbers," when combined with multispecies reproductive justice, could become a catalyst to reenvision childhood (and life) outside of a reproductive futurism tied to human exceptionalism and support forms of extended kinship networks that care for humans and nonhumans alike. It can resist what Mortimer-Sandilands and Erickson (2010) see as the anti-child stance of mainstream environmentalism that still privileges Western modes and forms of (re)production and family as

normal, natural, and divine (Sturgeon, 2010). The Camille stories function as string figure plots, an elaborate storyboard, a creative provocation for others to develop their own Camille stories, contributing to the collective task of imagining practices of partial flourishing on a damaged planet, practices that involve what Deborah Bird Rose (2014) calls "taking care of country"—not of an abstract future but of what Haraway describes as the "thick present"—a practice of being accountable to the past in order to find ways of living together in partial flourishing and partial healing *now*. The task is to learn to take care of times that don't work as past present-future but require accountability, response-ability, and creative speculation.

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Case Study 1:

"I'm Petro-fied!" Climate Activists and the Politics of Make Kin Not Babies

Officer: "do you understand why you've been arrested?"
Blythe: "Yes, officer, I wanted a future I could imagine having a child in."[9]

College student Stephanie Mills claimed fame the day she graduated college. As a 1969 commencement speaker, she used her platform to make a pronouncement: she vowed to not bear children. Alarmed by Paul Erlich's *Population Bomb* (1968) portending overpopulation pushing the Earth beyond its natural limits, Mills publicly declared herself a "conscientious non-parent." Mills decided to make a sacrifice because she believed individuals would need to alter their choices to avert oncoming ecological catastrophe. For a woman, expected to proceed (or at least to desire to proceed), in what Jack Halberstam (2005) has called "reproductive time," this pronouncement came as a shock to her audience. For many, it was unimaginable that Mills would broadcast a future outside of this paradigmatic life marker, and letters from the public poured in advising her to rescind her mistake, reaffirming a temporal understanding of reproduction that orbits around a "biological clock." The letter writers were under the assumption that such a pretty, intelligent woman would soon realize her misstep and move away from such a "childish" proclamation. Mills, on the other hand, prepared herself for a life answering what Rebecca Solnit (2017) has called the mother of all questions: why did you not have children?

Fifty years after Mills' speech, as increasing numbers of people confront the climate crisis, questions around reproduction (or the lack thereof) have once again taken center stage. In

[9] This text came from a meme, the words overlaying an image of BirthStrike founder Blythe Pepino getting arrested at extinction rebellion protest.

response to what remains an attention-grabbing narrative, this study focuses on self-identified feminist climate activists in the fray of population frameworks and compulsory family formations, including biological childbearing. This chapter draws on a longitudinal comparative case study of climate activists who challenge institutional pillars of normalcy to highlight the abnormalcy of climate change. Often to bring attention to the fact that climate change threatens the status quo, this chapter centers on two groups formed around reproductive decision making in response to climate change including the "choice" abstain from childbearing as a political response to climate change. Through a generative comparison of the groups called "BirthStrike" and "Conceivable Future," I examine the reproductive politics at the heart of their struggle. Lacking new structures and new propositions are efforts to secure a future that mirrors the past: stopping climate change to save "the family." Yet, this family formation is indelible to the crisis they seek to stop. There is an urgent need to re-story, to articulate a way out of the status quo that is driving the climate crisis.

In the following chapter, I explore how Donna Haraway's call to *Make Kin Not Babies* (2015) invites us to interrogate how these aspirations are at play with activists that are currently 'in the muck' as they confront their desires and fears around family and futurity. *Make Kin Not Babies* is not a merely speculative proposition, but an appeal meant to be applied in the now. However, how to enact this call remains uncertain. Haraway connects the need for alternative forms of kinship to goals of depopulation. In response, much of the literature exploring Haraway's proposition centers on both the promise of new familial relations through non-normative kin (e.g., Hoffstattër 2016) and the dangers of population discourse (e.g., Murphy, 2018). In this way, *Make Kin* seems more palatable for scholars than *Not Babies*. Given that this scholarship is still often living in a hypothetical realm: focusing on whether this proposition is

desirable/possible or dangerous/impossible, there is a need to find insights into how *Make Kin Not Babies* might be accomplished in the here and now.

This study assesses the barriers impeding the actualization of this demand through the following: 1) I review Haraway's slogan, connecting the climate crisis to family formations and population frameworks; 2) I introduce the groups "BirthStrike" and "Conceivable Future," which both form the empirical basis of this case study; 3) I analyze how both groups are rhetorically enmeshed in family values discourse and population narratives; 4) I examine how their attachments to populationism and nuclear family narratives are key components in how contemporary climate activists fail to achieve the transformative potential of *Make Kin Not Babies*. In Science & Technology Studies, through the concept of failure, scholars have examined what things do and don't work, proving rich insights into fragility, distributed agency, and the various ways 'failure' plays out in the processes of innovation, infrastructure, or experimentation (e.g., Latour, 1996; Lovell, 2017; Pinch and Bijker, 1987; Star & Ruhleder, 1996). Facing the uncertainties of the climate crisis, this chapter explores contemporary climate activism to examine what it might mean to take up Haraway's slogan and with what intentions.

Haraway's Slogan

Custom Graphic by Sheyam Gheith

In *Staying with the Trouble: Making Kin in the Chthulucene,* Haraway (2016) proposes kin-making not bound to species or normative familial structures. Resonant with ongoing feminist science studies scholarship working to resist the nuclear family (e.g., Brown, 2015; Lewis, 2019; TallBear, 2016a; Willey, 2016), Haraway urges making kin not babies to forge relations outside the narrow constraints of ancestry and genealogy. This call aims towards multispecies thriving by generating and maintaining "kinship and other mutualities that go far beyond the biogenetic" (Clarke, 2018, p.16). Articulated by Niccolini et. al. as active traffic between human and nonhuman (Niccolini et. al., 2018, p. 331), these connections forge relations of care with "air, water, land, and a mesh of life forms into the multigenerational future" (Murphy, 2018, p.110). Glimmers of making kin along these lines can be found in stories of queer, multi-species kin-making (Gundermann, 2017; Yu-Ling & Chia-Ling, 2018). Yet, to enable more human and non-human earthlings to thrive is going to be messy and requires a deeper analysis of which barriers are preventing new ways to engage.

Identifying these barriers can help us actualize kin making that sustains, rather than reproduces what TallBear (2017) calls "the continued domination of the anthropocentric family on private land." As a core apparatus of settler colonial expansion and capitalist logics, this formation erases and forecloses other ways of making kin across species considering 'right relations' and interdependence. The United States, locating Indigenous kinshipping as a threat, violently installed the patriarchal, monogamous, and property-bearing family to restructure and dismantle collective decision making, belonging to land, and relations to the non-human (Rifkin, 2011, p.5-6; Smith, 2010; Zaborskis, 2016). Since, Indigenous dispossession has been fundamental to how "death-dealing displacements" of racial hierarchy (Gilmore, 2007) have

been codified through systems of property that maintain white supremacy (Harris, 2004; Inwood & Bonds; 2016). Following perceived needs of settlement and empire, the family has remained a primary means to organize and control people and land, a major apparatus for seizing and occupying property to ensure generational (white) wealth accumulation. As such, unraveling this particular family formation is at the heart of taking *response-ability*[10] (Haraway, 2016) to other bodies, including baby bodies, water bodies, plant bodies, and animal bodies. This unraveling is not only symbolic, but material and structural.

However, to unravel such all-encompassing formations, we do not need more rules about reproduction. Hence, Haraway's slogan is a proposition not a prescription. In "The Camille Stories," Haraway (2016) speculates a future to address various socio-economic and environmental issues resultant from demographic threats. To Haraway, questions of depopulation are an "inescapable thread in the weave" of *Make Kin Not Babies* for multispecies and reproductive justice (Haraway, 2018, p.99). Thus, to express concerns over human numbering, Haraway has entered what she calls a "booming silence" amongst feminists when it comes to questions of (over)population. Haraway's explicit call to decrease human numbers unsettled many in her feminist circles, who are convinced that population discourse risks reinvigorating colonialist and racist practices and legacies (Subramaniam, 2018; Strathern & Sasser, 2019). In reviewing "The Camille Stories," Sophie Lewis (2017) articulated Haraway's focus on overpopulation as a turn towards "a primitive-tinged, misanthropic populationism." In Adele Clarke and Donna Haraway's edited volume delving deeper into this prickly topic, *Make Kin Not*

[10] Haraway's "response-ability" is an invitation to strengthen one another's capacities to respond to the unpredictable urgencies that grip us, to cultivate an openness when we don't know in advance what is to be done with each other. Following Haraway (see Battistoni, 2019) ethical thinking is often proposed as a list of rules where what is good and bad are known in advance. Responsibility is a sorting of the good from the bad in a series of principled actions that must be taken. Haraway has posited that we are now in a time and place where we don't know in advance what is to be done. Thus, *response-ability*, approaches ethics as an ongoing practice of inquiring with each other about how to respond to the complexities that we non-optionally find ourselves to be part of.

Population, they lament that this issue of too many people on the planet isn't a "*major* feminist concern – both inside and outside the academy" (Clarke, 2018, p.9). Yet, as Michelle Murphy (2018) and others have made clear, there are many reasons to be #AgainstPopulation. In response to Haraway, Murphy has generated propositions for how (and why) to move away from population discourse. Central to *Make Kin Not Babies* is whether population discourse is a taboo to confront *or* danger to avoid due to inextricable entanglements with eugenics and genocide. Regardless of an answer, this slogan has provided an invitation to engage.

At its core, *Make Kin Not Babies* opens space for more ethical decision-making in the face of such uncertain futures. A slogan to replace a list of rules with an inquiry at this expanding center. To confront issues of too many humans and unequal distributions of resources, Haraway sees an urgent need to disentangle nuclear family formations, within which contemporary baby-making reproduces racialized heterofuturities. Haraway connects this work to the "Great Acceleration" after WWII that marked sharp rises in CO_2, surface atmosphere, ocean acidification, biosphere degradation etc. (Steffen et al., 2011). Earth-system-altering precursors to the Great Acceleration, such as the mass death of Native Americans, the mass removal of trees, and the rise of industrial capitalism (Lewis & Maslin, 2015; Moore, 2015), are key to understanding how this resource-intensive regime relies on the normalization of ownership and property to objectify land and bodies from which to extract and exploit. In the post-WWII acceleration, mass production and over consumption of commodities became connected to a particular image of safety and success: material wealth envisaged as a middle-class, white, nuclear family. These particular intersections of race, class, and gender propelled globalist ideals of endless growth veiled as "progress" (Ebron & Tsing, 2017, p. 683). This image of "family" is the symbol of modernity, a privatized space for progress, of going up, and growing up.

Along with attaining this status, or so the myth goes, comes material wealth and capital accumulation. Key to this potent mixture is a particular family formation that has naturalized a separation between "security" and "wasteland" (Ebron & Tsing, 2017). Far from inevitable, this family formation is built on colonialist and capitalist anthropocentrism. This configuration of "security," anchored to fantastical desire for safety from all manner of enemies, enabled the wastelanding of people, flora, and fauna classified as expendable— "sacrifice zones" to create an "imagined good life elsewhere" (Brown, 2015, as cited in Tsing, 2017, p. 673). Scholars reflecting on sacrifice zones have documented devastation as far reaching as the beaches of Ceann Ear, an island off the west coast of Scotland, filled with marine debris (Farrier, 2019); the Southwestern United States, where the impacts of uranium mining have been disproportionally placed in Navajo lands and bodies (Voyles, 2010); to northeastern Brazil, where 46 members of the Guajajara tribe, of only 13,100, have been murdered while trying to protect the forest from logging (Nixon, 2020). These are but a few of the dire consequences of the symbolic morphing into the material, practices that arose because of these constructions of "security" and "wasteland." The family creates and sustains wastelands, encouraging a turn inward that dictates individual identities, desires, and care relations. Once formulated as a place free from harm, it becomes too easy to ignore the dangers within and the dangers that leak outside the bounds of nuclear family. Practices to bolster the nuclear family extract what is deemed valuable and discard the rest. By constraining people's sense of safety within idealized domestic formations such as "home" and "nation," priorities are set at the expense of actual safety for all.

As the most intimate form of reproductive order, gestational reproduction lies at the heart of all nationalisms (Nira Yuval-Davis, 2010). In a capitalist regime, reproductive labor dances around perceptions of shortage and surplus, reliant on making some lives disposable and others

valuable for the 'good of the nation.' National interests justified policies such as the Comstock Act of 1873, which banned information about birth control, aimed to encourage Protestant Americans to give birth and settle the "fertile prairies" (Mohr, 1978, as cited in Brown, 2019, p. 61). This example fits with continuous efforts to control certain women's reproductive options as part of what Loretta Ross of SisterSong has called "an unsubtle campaign of positive eugenics to force heterosexual white women to have more babies" (Brown, 2019, p. 117). Concurrently, through the present day, there have been numerous policies to prevent the reproduction of non-white, disabled, and foreign populations, including tactics such as coercive sterilizations (Hartman, 1995; NPR 1A, 2020). *Not Babies*, for many, is too closely tied to these policies and practices to be carried forward.

By the mid-20th century racialized ideals tied to "multitudes," "crowds," "hoards" commingled with newfound visions of economic futures bound to "population." In turn, concerns that overpopulation threatens prosperity have led to calls to invest in women's education and family planning in order to gain the *perceived* economic benefits from reducing population (Torracinta, 2017). Economic development and rural/urban planning are conceived of vis-à-vis property and population. Problematically, demography categorizes (and values) people differently, giving population vast necropolitical potential (Dow and Lamoreaux, 2020, p. 477; Murphy, 2017). Focusing on the number of humans can shift focus from the quality of relations, providing a fantasy of easy and narrow solutions to what are complex systemic problems (Murphy, 2017, p.137). As Jenny Brown (2019) has outlined, topics as far-reaching as incarceration, child labor, immigration, and women's reproductive health are addressed within discussions of "population." Policymakers justify control of labor using the deployment of technical language—e.g., "age structure" and "dependency ratio." This abstract language takes

demographic trends out of the social contexts of human numbering and distribution (Sasser, 2019, p.162). Population and family are knowns, predetermined outcomes, around which to plan and manage future desires. These formulations provide a false sense of security, overshadowing the uncomfortable work of not knowing.

The imagined eternal perpetuation of "the child" and "the family" propels reproductive futures premised on social and financial predictability in the present. These ideals craft visions of "security," premised on identifiable threats centered on ingroup/outgroup distinctions, and "safety," a concept that drives preventative measures to stay safe from harm (Inderpal, 2017). "Security," the duplet note played at the same time as "wasteland," bounded an image of safety impossible to actualize. Security harnesses the imagined white middle-class nuclear family as a core organizing principle of the political economy. In contemporary Western society, this heteronormative (or homonormative) family is forged with economic structures to maintain this capitalist and colonialist model of property relations and resource distribution. As TallBear (2016b) articulates, narratives of shortcoming held by both whites and natives comprised descriptions of attempts to paint a "white, nationalist, middle class veneer" over the lives of native people creating new categories of failure such as "broken families" or "single mothers." Importantly, through this aspirational ideal of the normative nuclear family, this dream of "security" is mobilized through racialized frameworks in order to depict threats to this imagined "home" and "nation." As such, people without basic needs such as food and shelter are framed as "parasites,"[11] undeserving recipients of support (HoSang & Lowndes, 2019). This depth of

[11] The parasite, deployed as a racializing figure, represents how some bodies expand and crowd out the reproductive futures of others. In the vampiric image of a mosquito feasting on blood (required for reproduction), the small body becomes a predator (Freccero, 2011). In HoSang and Lowndes *Producers, Parasites, and Patriots: Race and the New Right-Wing Politics of Precarity* (2019) they track how effectively parasitic frameworks have been used across the U.S. political landscape to render anyone—from Black mothers to gay men to unionized pubic-sector workers—as dangerous. Huang and Wu (2018), for instance, share how, in late 1990s Japan, a sociologist coined the term "parasite single" to refer to adults who live with their parents into their thirties.

inequality is what is at stake when we reproduce current nuclear familial frameworks and discourses.

In Melinda Cooper's (2017) description of the economic histories that led to the current (over)reliance on familial solidarities and inherited status, she outlines how economists justified shifts from the welfare state to the family as the ultimate guarantor of economic security and care through moral arguments about 'family values' deployed to transfer responsibility. As Cooper demonstrates, contrary to the belief that neoliberalism affords individual self-sufficiency and liberation, vital to this economic order of privatized care are structures that marshal everyone, even queer people and people without children towards these "family style care relations" (Cooper, 2017, p. 213). Subjects are folded into this neoliberal rationality via abandonment of public good and interdependence. As Margaret Thatcher (1987) said, "there is no society. There are individual men and women and there are families." Subjects are folded into this rationality, which can be easily seen in the capture of numerous activists' movements that fight for the right to be included in these narrow care relations rather than extend care relations outward. This economic structure blocks redistributive justice using the normative nuclear family as an incontestable tactic to naturalize the hoarding of energy and resources within 'private' spaces. Concomitantly, the expansion of consumer credit and cuts to public spending in health and education have forced many into precarious family-reliant forms of care, and sites of intergenerational debt accumulation. Thus, as Sasser asserts (2019), a complete unraveling of the family as a unit of welfare is essential to actualize Haraway's slogan as a vision of multi-species justice.

The 21st century is a time of expanding wastelands. Contaminated waters carrying PFAS into our bodies, deforestation leading to pandemics, and agricultural impacts from the decline of

honeybees are clear illustrations of interconnectedness and the porousness of boundaries. Unfortunately, as more people shift into the "category of the discarded and destined for death" (HoSang & Lowndes, 2019), there are increased attempts to hold onto mythical ideals aimed at "keeping out the riffraff"— often unsubtly framed as borders from surrounding "color, chaos, and communism" (Ebron & Tsing, 2017, p. 667). Threats are perceived as outside the domestic while the truth is fit for a horror movie: 'the calls are coming from inside the house.' Even crusaders against racism too often frame it as a problem of *someone else's* bias or an issue relegated to the past. Likewise, climate change is often framed as a technical/scientific issue of future threats. These modes that externalize threats place the problems outside the here and now, which enables people and institutions to deny complicity and avoid addressing the very problems they purport to solve.

Nowhere is this displacement more evident than in 'family values' discourse. Positioned towards an enormous range of political projects, concerns that the family is falling apart are harnessed via a view of the family-in-perpetual-crisis, which gives energy to policies aiming "to inject new life into that unit, always at the expense of others" (Lewis, 2019; Meiners, 2016; Renfro, 2020). Perceptible in the plight to *save the children*, contemporary moral panics centered on family values and imagined child safety have led to guiding legislation on topics as far ranging as victims' rights, adoption, abortion, gestational surrogacy, genetic testing, human trafficking, and pedophilia (Cohen, 1973; Jenkins, 1998; Lepore, 2018). Meanwhile, in the shadow of the family, actual threats to children's health and safety fall behind as mothers are blamed and children abandoned. As Lee Edelman's (2004) polemic against the politics of reproductive futurism argues, the imaged child, symbolic of futurity, can organize and administer an "apparently self-regulating economy of sentimentality" (p. 134). In this arrangement,

protecting the child (that binds the nuclear family) symbolically stands-in for preserving the nation, the status quo, and a gendered and racial hierarchy tied to present social structures, including those that merge sexual alliance to decent to create a given order of genealogy (Balibar and Wallerstein, 2011). As a political project, multispecies kin making can get disregarded in the face of these future-oriented goals centered on this vision of "the child."

Looking for issues *over there,* it is easy to get caught up in the spectacle of disaster elsewhere, and to ignore the urgent need to turn our attention to the *here and now*. It's hard to avoid the dynamism of spectacle that holds our attention away from the ongoing and the ordinary. The biogenetic family, reliant on the procreative child as the most legitimate form of kin making, and contemporary environmental crises are mutually constitutive. As Marilyn Strathern (2019) posits, while kinship is widely viewed as the inescapable outcome of "procreating couples having babies," a primary strength in Haraway's slogan lies in the possibility that new conceptions of kin might "dislodge babies from the center for reproduction" (p. 160). Population and family frameworks both mystify present conditions and reproductive orders, providing rationale for political projects to "secure, in the form of the future, the order of the same" (Edelman, 2004, p. 151). In response, *Make Kin Not Babies* solicits alternative kinships and alternative demographies that require halting the reproductive orders that legitimize and maintain the divisions of labor and regimes of accumulation that undergird the climate crisis.

To cultivate *response-ability* demands uncomfortable modes of inquiry and refusal that do not fall back on these predesignated safety zones. Towards this end, this chapter extends from Melinda Cooper's (2017) call for a re-examination of activist attempts that fall back on this family formation, and the corresponding moral logics that maintain capitalism. Indeed, to

achieve an anti-racist, decolonial politics for multispecies thriving, following Murphy (2018), necessitates dismantling and refusing "the proprietary heterosexual family form that the storm of capitalism, racism, colonialism, and liberalism demands as the container for reproductive choice" (p. 112). We need propositions "beyond babies, birth and bodies and out into struggles of survival that are not just personal survival but struggles over what more-than-life relations might persist into the future of collectivities" (Murphy, 2018, p. 110). Simply put, to care for babies we need to give up the family.

Comparative Case Study: Conceivable Future and BirthStrike

This study centers on activists confronting the unbearability of refusing this reproductive order while propping up the image of the family as a counter tool. To explore this tension, *Make Kin Not Babies* provides a provocative analytic for untangling how population and family frameworks impede systemic change. We do not have to agree with Haraway; however, due to the dominance of family values and population discourse, engaging in the discussion she has invited is well worthwhile. In order to explore this provocation, this chapter examines two activist groups as potential sites of *Make Kin Not Babies*.[12]

Conceivable Future was founded in 2015 to demand an end to fossil fuel subsidies, claiming that the climate crisis is a reproductive crisis. Climate activists Josephine Ferorelli and Meghan Kallman began by hosting structured 'house parties' for people to share how their ideas and understandings of climate change were impacting their reproductive decisions. I attended local events, studying their 'how-to' guides for hosting events, connecting with founders and

[12] Neither group in this study reference Haraway's *Make Kin Not Babies*. They are not explicitly attempting to achieve Haraway's aims, and their stated goals do not map neatly onto this slogan. I am placing it on them as an analytical framework to better understand how these sites relate to both the celebrations and critiques of *Make Kin Not Babies*.

group members, and following their social media, email list, and newsletter. At their house parties, they ask people to come "meet, talk, testify, and take action" (Conceivable Future, 2020). People gather around a presentation that contains some facts and statistics about climate change and messages about the core values informing the event. Conceivable Future makes clear that they are not advocating for a particular decision about having children nor not. Rather, they are instigating a "highly personal and deeply political conversation" around the negative impact climate change is having on participants' reproductive desires, perspectives about the future, and their "basic political right" to have children free from harm (Podolsky, 2016). Participants are invited to share testimonials that are filmed, written, or audio-recorded and added to a growing collection on the Conceivable Future website. They ask participants to also share testimonials with their own networks. Rooted in feminist activist theories, they see these testimonials as a key tactic in changing public discourse and creating more emotionally connected climate activist communities.

In 2019, Conceivable Future was gaining international press coverage, often appearing alongside a group called BirthStrike. BirthStrike was a U.K. based media campaign launched in 2018 by Blythe Pepino to publicize her decision to not have children as a political response to climate change, calling on others to sign a pledge and 'strike' from pregnancy. Using their status as potential parents, claiming a particular stake in the future, BirthStrikers declared a uterine strike until governments act on climate change. Their tactic was to share the psychological toll of this strike on their reproductive desires to underline the urgency of the crisis. Within weeks of the campaign's inception hundreds signed on, saying they'd decided not to have children because of the crisis (Timsit, 2019). Using this platform, Blythe also led activist demonstrations with other BirthStrikers, such as throwing 200 liters of red paint on the British Prime Minister's

residence to protest the "death of our children" (Mohdin & Carrell, 2019). In addition to following their social media accounts, I examined media appearances with Blythe (and often other group leaders, Alice and Jessica), including podcasts, documentaries, news shows, and magazine articles. On their Tumblr, Facebook, Twitter, and Instagram, there were numerous testimonials of people sharing their reasons for not having children and joining the strike.

By following both BirthStrike and Conceivable Future I was able to engage with a generative comparison. The two groups relate differently to Haraway's proposition, but by intermingling with conversations around procreative reproduction they quickly found themselves enmeshed in problematic family values and population discourses that go against the stated aims of both the activists and Haraway. To investigate these entanglements, I amassed a pile of information containing the many notable similarities and differences between them. The groups' overlapping, yet distinct approaches helped illuminate the ways these self-proclaimed feminists waded into the muddy waters of reproductive futures and populationism. To organize and examine the many disparate pieces of information I archived over the years, I descriptively coded various documents (e.g., event flyers, fieldnotes, and screen capture of tweets) (Saldaña, 2009). It became evident that these groups' founders frame these topics most clearly in activist terms, and much of the coverage of these activities featured the founders. Thus, it made sense to include more information on Blythe, Josephine, and Meghan. I looked for the discourses of kin-making and population, and wrote analytical memos to further consider certain emails, posts, images, etc.

At the start, I tried to use non-gendered language in my notes. However, in reflecting on the discourse of the group leaders and participants, it became clear that gendered understandings of roles (e.g., women-led, mother, feminist) and gendered assumptions (e.g., women face greater

pressures to procreate) were important aspects of their arguments and testimonials. Thus, I shifted to incorporating more of this gendered language to continue to examine the accompanying socio-political histories and assumptions.

After coding, I engaged Adele Clarke's (2005) concept of "situational mapping" to re-examine data from these varied ethnographic gathering methods. This technique brought these documents, jottings, field notes, and memos back into the complex situations that produced them. Following Clarke, I considered what 'made a difference' in a given situation (Clarke, 2005, p.561). This process is expansive, as new maps are routinely created and new linkages are formed across a wide range of topics. Through this mapping practice, I examined the nonhuman elements; movement figureheads; rhetorical strategies; controversies; technologies, organizations; temporalities (e.g., repro-time, generational time, "biological clock"); and emotional displays, such as grief and anger. By contemplating how *Make Kin Not Babies* played out across these groups, it became easier to see how the problematic frameworks of the biogenetic nuclear family and population presented barriers to achieving new kinship networks and approaches to confronting the climate crisis. Following scholars in feminist Science & Technology Studies, this chapter examines these cases of failure to illuminate obstacles towards activating what is useful about this slogan.

BirthStrike's Campaign: Fueling the Fossilized Family

Founder of BirthStrike, Blythe Pepino, is a British pop singer turned activist. Ironically, during her time in the band Vaults, Blythe was openly polyamorous and conducted several interviews about her non-monogamous lifestyle. According to her, transformation into a climate activist occurred when she fell in love with her current partner and became more aware of the urgency of the climate crisis through the Intergovernmental Panel on Climate Change (VPRO,

2020). Blythe began to grapple with what it would mean to have a child when facing such dangerous uncertainty. Her public-facing story shifted to her re-commitment to heteronormativity; were it not for the climate crisis, Blythe would have found happiness in monogamous romance and childrearing. Blythe's story became a fundamental component of the BirthStrike media campaign she started, alongside a pledge signed by other activists refusing to 'make babies' until the climate crisis is addressed.

Interestingly, Blythe is not naïve about the deployment of heteronormative family conceptions as a strategic move to galvanize action on climate change. Blythe has been candid about her reliance on mainstream Western values. In a blog post on their Tumblr, she articulated BirthStrike tactics: "especially the protection of one's own family - may be one of the last bastions of 'greater purpose' left in the individualistic Global North cultures" (BirthStrike, 2019). She elaborates on the effectiveness of this rhetorical tactic, suggesting that depicting her heteronormative nuclear family as unable to have children "presses a lot of buttons and has allowed us into arenas usually averse to talking on the topic" (BirthStrike, 2019).[13] BirthStrike wrote that the purpose of centering on this struggle with, and decision against, having biological children in light of the climate crisis was meant to appeal to mainstream Western "sensitivities" using the "human themes" of fertility rates, family and parenthood, and gender politics (BirthStrike, 2019). The hope was to attract "a wider audience than your traditional 'greeners.'" (BirthStrike, 2019). While this angle might have expanded their audience of spectators, it did so

[13] There is more to be done theorizing the connections to race in this context. Why have these activists internalized their own reproductive capacities as valuable, attention grabbing, and a power upon which they can strike? What are the connections between the "buttons" pressed and positive eugenics? How does whiteness operate as a default, obfuscating the histories and dynamics of race? Furthermore, how are these dynamics both perpetuated and complicated by BirthStrike activists that are also Black, Indigenous, or People of Color?

by feeding this deeper commitment to normative gender politics, family formations, and population panics.

Blythe's rhetoric, however unintentionally, implies that biological progeny are at the core of a safer future, and that we must *save the planet to save the family*. Importantly, making the rhetorical move to demand action on the basis of this reproductive order makes it easy to avoid meaningful systemic critiques and orients possible solutions. When climate change is framed as problem *because* it threatens this reproductive order, it is harder to leverage demands to halt unjust systems because the logical next step is to make claims to the state (or to the general public) to sustain and protect this reproductive order, and the corresponding hierarchy that exists within and around it.

Media depictions of Blythe are persistent in forging linkages between 'falling in' heteronormative love and 'nature' (e.g., something outside the human, organic, uncontrollable, the way things are supposed to be). Of Blythe's numerous appearances, a 2019 German documentary called *BirthStrike: Staying Childless to Save the Planet* (Berlin-Brandenburg, 2019) shows how the climate crisis is framed as the enemy of the "natural," "normal," and "good." In one scene, Blythe is standing in an open field in Scotland with her mother. The wind blows through this picturesque nature-scape showing the past (in the form of her mother), the present (in the form of Blythe), and a deep longing for a different future (captured in their mournful looks as they gaze into the distance). In the following scene Blythe's mom asks and answers, "What is the most natural thing? Falling in love and having a child." This quote highlights how dominant views of nature are used to conflate "natural" with "good" and to tie kin-making to a process of Western romance anchored by biogenetic procreation.[14] As part of

[14] For more on the connections between Western ideas of nature and gender, see scholars like Carolyn Merchant (1990) & Donna Haraway (1985) & Noel Sturgeon (1997).

this construction of ‘nature, children (and their childbearing mothers) can be been seen as innocent, without agency, acting in ways that are organic and beyond their control. Within the context of the climate crisis, a certain narrative here is naturalized that these activists are victims going against their ‘natural’ calling. By positioning climate change as a threat to their reproductive futures, BirthStrike framed climate change as a catastrophe so abnormal that even the most normal progressions of biological kin and nuclear family could no longer be assumed. This media campaign furthers this assumed inseparability; a threat to the family is a threat to nature. Unfortunately, this family values narrative, and the framing of Blythe’s identity as a victimized woman unable to fulfill her “natural” purpose, often takes focus over her political agency.

Building on the common narrative of confronting the climate crisis *for* future children provides BirthStike a morally righteous argument. As seen in one social media post where activists have written their names on popsicle sticks piled together. The text reads, “so many potential families that are depending on us turning this huge old ship around to exist” (BirthStrike, n.d.). Presenting that they are committed to fighting for future families demonstrates both the magnitude of the crisis and the depth of their commitment. For them, a better future is a future where these types of families are safe from harm and able to reproduce.

Conceivable Futures, Calcified Futures

While Conceivable Future operates and articulates their work differently from BirthStrike, both groups are enmeshed in notions of making kin constrained within this family formation. Looking across Conceivable Future’s testimonials, media appearances, and organizational materials (e.g., as newsletters, house party worksheets, and social media posts), there is an overarching narrative that the climate crisis is interfering with many people’s plans to

"start a family" – a desirable formation made possible via biological childbirth. Akin to Blythe, Conceivable Future arose from the founders, Josephine and Meghan, realizing that they could not imagine having children in the face of climate change. They saw this at the "heart of the reasons" for their climate activism and wondered if it would be similarly motivating for others (Cranage & Rosalind, 2020).

Conceivable Future takes a grassroots approach, organizing conversations about the reproductive stakes of the climate crisis. There is a fundamental distinction between BirthStrike and Conceivable Future. Whereas BirthStrike mobilized around an answer, Conceivable Future organized around the question: how are your reproductive decisions negatively affected by the climate crisis? As articulated by Josephine, "the call to action is in asking the question. There is no right answer." (Cranage & Rosalind, 2020). As Josephine and Megan remain 'undecided' about whether to have a child, they've articulated that organizing from a place of uncertainty and vulnerability— starting by saying "I don't have the answer to this question"— has been really fruitful (Podolsky, 2016). This approach opens the conversation inviting people in to *stay with the trouble*[15] without having to agree with one another or determine an answer. In promotional materials, they are explicitly welcoming to anyone interested in joining the conversation, as seen in this invite to an early NYC house party in August 2015, "all ages, genders welcome. Parents, non-parents welcome" (Conceivable Future, 2015). Rather than asking for people to rally around a decision (a strike for example), their invitations simply ask, "Have you ever wanted to talk about it with other people?" (Conceivable Future, 2015).

[15] "Staying with the trouble" is a Harawayan provocation and the title of her 2016 book *Staying with the Trouble: Making Kin in the Chthulucene*. To *stay with the trouble* is to confront unanswerable questions of how to navigate our densely webbed network of multispecies relations. This is a call to resist technofixes promising to save us from doom *and* to avoid the idea that it is too late to make the world more livable. Importantly, *staying with the trouble* requires grappling with the fact that we are not innocent, but part of a messy and contradictory world where all earthlings are kin, entangled and at stake with one another.

Central to the design of their activities is the notion that bringing often private conversations about reproduction into a shared space can create the needed environment to shift from personal feelings to systemic critiques. In a newsletter from 2019 on "Why host your own Houseparty," they write that "getting together is the 1st step toward transformative change" (Conceivable Future, 2019). A core strategy of theirs is to solicit video and written testimonials. Following several of the tactics of 21st century feminist activists, Josephine and Meghan see the testimonials as an "intimate reveal" that can bring the climate crisis "closer to the center of people's lives." They are eager to show people that they are not alone, to connect the climate crisis to reproductive injustices in order to move people to take collective action.[16]

Predominantly, testimonials center on fears that an unpredictable, apocalyptic future will not be safe for children; guilt that having an affluent child in the West would use too much carbon; and people who believe it is important to dedicate their time to climate activism (rather than to childrearing) for the sake of all present and future children. Participants talk about anger and sadness, critical thought and hope, extinctions and grief, about the futures they anticipated. These findings parallel what Meghan and Josephine have heard. In a radio interview, they narrow participants' thinking down to two primary questions: "What will my child do to the world as a consumer?" and "What will a hotter meaner world do to my child?"[17] (Cranage &

[16] Jill Lepore, writing about the origins and evolutions of these political tactics, has connected testimony to the late 1960s- and 1970s Women's Liberation Group in New York. This group held events for women to share public testimony about their experiences with abortion. They wanted to change the laws restricting abortion and believed that by sharing testimony about their lives they could learn from one another and sway the political elite by teaching the world that women were the real experts on the topic. Inspired by Mao Zedong, the goal was to 'speak bitterness' by describing their oppression and blaming their oppressors. Events for women to "speak their truth" became known as consciousness raising. In many newsletters and online posts Conceivable Future invites participants to "speak truth to power." They articulate assumptions that follow this lineage, hoping that conversations and public testimony will motivate people to take collective action.

[17] Writer and activist Naomi Klein (2014) has argued that climate change is "not just about things getting hotter. It's about things getting meaner." For Klein, we need to transform the capitalist values that will govern this crisis and exacerbate the harshness, violence, and injustices of the world.

Rosalind, 2020). To shift people towards collective action, they help people "sit in the second one" with the goal to abandon common myths that lay blame for societal problems on women and that place the responsibility for environmental change on consumers (Cranage & Rosalind, 2020). By tapping into 'anticipatory grief' about the future, Conceivable Future encourages participants to connect the climate crisis to reproductive injustice caused by climate change. Within the ambiguity of this language, however, participants still often arrive at future-oriented concerns stuck in normative biogenetic visions of family.

While the stated goal of Conceivable Future is to work towards justice, the dominant rhetoric of choice overshadows how embedded reproduction is in systems of capital. This rhetoric of personal choice can be seen via participants sharing their concerns about the loss of a sovereign self in possession of the right to choose, clearly stated in a recent testimonial: "It feels like I do not have a choice. I wanted the CHOICE" (Little, n.d., para 3). In an interview on *Al Jazeera*, Josephine says: "for anyone wanting to start a family, we do so under the shadow of the fossil fuel industry" (Aljazeera, 2019). In this statement, "family" is conceived of as a blameless formation separate from the fossil fuel industry. The industry provides a specter of death outside their innocent goals, a separate, dangerous presence against which they can play the victim. In this framing, they fail to connect how this particular family formation is complicit in driving fossil fuel production, maintaining the world of late carbon liberalism that they inhabit. As they rightfully lay blame on the fossil fuel industry as an external oppressor, they fail to simultaneously connect the institution of the biogenetic family to settler colonialism and white property. Implying that 'starting a (biogenetic) family' is neutral (or even good) also overlooks the reproductive toxicities that accompany hospital stays, baby strollers, bottles, and breast pumps made of plastic; the status of migrant workers essential to maintain systems of agriculture

and domestic care; the coercive practices of animal breeding (seen in the work of scholars such as Gaard, 2010; Hernandez, 2010; Pratt, 2021). The assumptions that undergird this individualizing rhetoric of reproductive decision-making act as a barrier to understanding reproductive interconnectedness and the procreative demands of Western lifestyles.

As participants express their climate anxieties, they demonstrate how intertwined this family formation is with systems of capital. For them, family is often articulated in relation to economic visions, plans, and considerations, as participants speak about their desires, oriented around a future child (or lack thereof), which requires a world of security, predictability, and planning that they cannot foresee. When speaking about their reproductive decisions, participants bring up economic factors such as work instability, ongoing student loans, or the cost of housing. In the neoliberal economic order of "accumulation by dispossession" (Harvey, 2004), ideals like "starting a family" go hand-in-hand with the burden of credit card debt and mortgages. In the West, where the burden of care rests largely on this particular family formation, as Jenny Brown articulates, children are often regarded as a personal indulgence or lifestyle choice for those who have the resources – a project only for the affluent. For everyone else, confined within the "pro-life" anti-child policies of contemporary U.S. society, access to reproductive healthcare and childcare are limited (Briggs, 2020). These neoliberal notions of personal choice and responsibility replace demands for collective care, enabling a system wherein parents without adequate resources are seen as neglectful. Thus, in testimonials, greater financial stability is discussed as a necessary precursor for parenthood.

While many participants consider the personal financial burdens that accompany "having a baby," they articulate this in relation to a vision of family-making that is bound up in desires *for* economic stability. Participants' want to be 'settled' enough to start a family *because* their

image of family is an economically stable settler imaginary wherein the nuclear unit owns property and can provide for one another. In creating spaces for people to "tell their stories" of how climate change has impacted their ability to "start a family," they cousin with BirthStrike: having a baby is framed as desirable *because* it provides entry *into* the family. In today's neoliberal order, where family is held up as the main source of care and protection (economically, legally, socially, and emotionally), refraining from childbirth implies withdrawing from the economic stability family signifies.

The Malthusian Skew: Family Values and Populationism

Where Haraway confronted a "booming silence," the climate activists in this study entered what Sasser describes as "a long-enduring narrative that permeates ecological sciences, international development, and everyday conversations about the environment" (Sasser, 2018, p. 2). In the media, rhetoric around climate change as a driver of the family-in-perpetual crisis, fertility scares, and resource scarcity creates a sense of urgency. For many, this can make "solutions" as outdated and problematic as population control appear to be "a necessary evil" (Sasser, 2018, p. 44-45).

The press featuring both BirthStrike and Conceivable Future frequently frames these groups as indicative of a demographic crisis: "Will Climate Change the American Dream;" "Barometer of despair': Birthrate falls as millennials fear climate apocalypse;" "For some millennials, climate change clock ticks louder than biological one" (Belkin, 2019; Lauer, 2020; Rainey, 2019). In the *Guardian*, the *New Yorker*, and the *New York Times*, articles mention environmentalist concerns of overpopulation alongside the morality of having children in an era of environmental catastrophe (Haner, 2018; Hunt, 2019; Kolbert, 2012). In an *EcoWatch* article (Dapcevich, 2019) about BirthStrike, quotes highlighting activists' desires for "family" are

positioned next to a tweet about another EcoWatch article titled "7.5 Billion and Counting: How Many Humans Can the Earth Support?" (@EcoWatch, 2018). In *ChristianHeadlines.com*, the journalist frets over a "birthrate already on the decline," and concludes that "there will be a lot of rather disappointed cat ladies" (Koslosky, 2019). Demographic framing solicits responses at the population level and homogenizes people into crude categorizations.

In the media of the more extreme political right, population narratives are explicitly connected to xenophobic misogynistic rhetoric, framing the activists as manipulative and manipulated, a product of failed modernity and feminism. The activists are seen as "posterchildren against motherhood" ignoring their duty to support the continuation of the Western White race trying to "drive another nail in the coffin of our people and civilization" (2019[18]). This toxic discourse is also visible in vitriolic trolling online as commenters say, "not even worthy of being raped" and "stupid white women not having babies, they're contributing to the Muslim takeover" (see Wray, 2020 on BirthStrike changing their name to evade these racist affiliations). Ensnared in populationist discourse, these activists have been targeted by violent and corrosive interpretations of their actions.

Amid such overbearing discourse, both groups maintain that they are not making a statement about population. The BirthStrike pledge states that they stand in "compassionate solidarity" with parents and don't endorse population control (BirthStrike, n.d.). Despite this, in every interview, they are asked if their work is about population. Simultaneously, live social media comments regularly celebrate their work as a sensible response to overpopulation. In articles about BirthStrike, taglines read: "activists rely on the fact that the earth's population is growing, as is the risk" and "Do you ever think Earth would be better off if the human race was

[18] I have purposefully deleted this citation to avoid links to this dangerous YouTube channel. Citational details available upon request.

reduced? Now you can join an organisation called BirthStrike and vow not to have children" (Zoe, 2021; rmedcalf, 2019). They are often on the defensive, saying they are against population control, making the argument that population control will not solve the climate crisis, and claiming that viewers and journalists are mispresenting them. However, while both groups attempt to resist populationism, they have been ill-equipped to confront the inseparability of population discourse and reproductive futurism as it relates to their work.

Interlaced global population and climate narratives appear throughout the groups' testimonials, media appearances, and social media feeds. Tags on Conceivable Future's website list certain people as "childless by choice," positioning the testimonials that refer to overpopulation within the Neo-Malthusian history epitomized by Stephanie Mills and *The Population Bomb*. In a recent tweet from Conceivable Future, they articulate their mission as a space for people to "speak freely about the fears and anxieties that arise when family planning in an apocalypse" (@ConceivableFut, 2021). When directly confronted with the question of population, they reiterate that the scale of population is too abstract for human existence, antithetical to their goal of women's reproductive choice, and an unconstructive misdirection. However, this tweet is shared with an article titled "People aren't having kids because of impending climate 'apocalypse,' study suggests" (Lao, 2020). This universalizing and abstract language of the apocalypse suggests something coming to everyone everywhere. Additionally, when placed alongside terms they use like "family planning" and "declining birthrate," despite their efforts, it is hard to view them as 'outside' of population discourse. They may not like the headlines of the articles that feature them, and they may articulate more nuanced views, but they still react and repost. This tweet is firmly situated within Western ideas of futurity, family, and apocalypse: support for those planning to continue this threatened reproductive order.

In the aforementioned article, Conceivable Future and BirthStrike's affective displays of grief and fear are used to signal the oncoming demographic crisis and the need to make "good" choices when it comes to carbon footprints. The article follows the common trend of debating: *what do we think of these women?* Christian climate celebrity Katharine Hayhoe weighs in that she could not possibly advocate for people not having children because children provide hope, and motherhood is the foundational reason to work for a healthy future (Lao, 2020).[19] Time and again, BirthStrike and Conceivable Future are positioned in relation to asking *should* one take this action, which overshadows any conversation about *why* they are taking this action. Debating the moral merit of any person's reproductive decisions directly undermines both groups' stated goals and the concepts of reproductive freedom necessary for resisting population-driven policies that rely upon judgments around who should have babies, why, and where.

For BirthStrike, these dominant population narratives were acutely present. In response, in August 2020, Birthstrike ended as a campaign and deleted their online presence, including their Twitter, Tumblr, Instagram, and their database. In a letter written to supporters, Blythe (and another prominent leader, Jessica) announced the creation of "*Grieving Parenthood in the Climate Crisis': Channeling Loss into Climate Justice*." BirthStrike had been reckoning with the importance of Black Lives Matter during the 2020 uprisings and concluded that BirthStrike no longer seemed tenable as a campaign tool. From their privileged position in the Global North, they worried they had unintentionally provoked white supremacist population discourse that can exacerbate racial injustice. They outlined how they had been humbled and distressed by losing control of their narrative. While they knew this would be a "scandalous" topic, they were

[19] Does the notion of being a "good mother" play into activists' proclamations that they will abstain from childbirth, only procreate when they cannot secure safety for their child? Is being a "good mother" still part of their thinking when they redirect their energies towards activism?

surprised that they were seen as a group working on issues of overpopulation, which they claimed went "directly against our founding principles" (Pepino & Johannesson, 2020). Blythe admits that she first thought BirthStrike could even help combat populationist rhetoric, but then decided that BirthStrike's very existence (the name and emphasis on birth) was "enough to inadvertently fan the flames" (Pepino & Johannesson, 2020). They wrote, "We have to concede that we underestimated the power of overpopulation'" (Pepino & Johannesson, 2020). BirthStrikers rhetorical power relied on the threat of certain women not having babies, connecting them to family values and population discourses as key mechanisms around which people and societies organize and plan. This refusal to procreate disrupted the social imagination's conception of the future as well as their own. Yet, when faced with the intractability of these two discourses, the activists did all they could to avoid being associated with toxic legacies of population leaving them entirely unable to follow Haraway (2018) in asking *has the Great Acceleration left us with more humans than the earth can bear?*

Failing to reproduce justice beyond birth, bodies, and babies

In this last section, I return to Haraway's slogan as an analytic to examine the ways these activists failed to animate its transformative promise in the face of such dominant populationist discourses and assumed formations of family. This study highlights how the concerns raised in the literature about the problematics of populationism are not only theoretical but borne out by empirical data. Activists are caught in the fray of eugenic, xenophobic population discourse; the flip side of the family formation they uphold (unintentionally or not). Even though both groups take entirely different approaches, they are both steadfast in their stances against population control. However, the premise of their organizing inspires others to make the connection. Likewise, even though this is not Haraway's intention, the connection between this slogan and

eugenic populationist discourse has been hard to avoid. As the most directly ensnared, BirthStrike ended their strike and corresponding public proclamations.

Mapping *Make Kin Not Babies* onto these groups demonstrates how challenging it is for many people to escape the imaginaries of the biogenetic nuclear family. When assessed according to *Make Kin Not Babies'* aim to inspire alternative kinship formations, a significant barrier for these activists can be found in the normative conceptions of reproductive failure engulfing them. As the activists seek societal change there is a tension between their actions and the dominant norms that define societal achievements. For women, the binaries of success and failure are stark, easily seen in terminology like "failed marriage" or "failed pregnancy." In Yu-Ling Huang and Chia-Ling Wu's chapter in *Make Kin Not Population*, they reference compulsory motherhood to highlight the pressures many women feel to carry out a reproductive vision of their lives (as well as what they will endure in the form of miscarriages, medical treatment, and spousal abuse) (Huang & Wu, 2018). Failing to meet the ideals of womanhood can take a physical and psychological toll. Categorized as deviant or deficient, many women are depicted in archetypal terms – the 'spinster' or 'single mother' elicits pity, disgust, and suspicion (Ensor, 2012; Fauli, 2006; Kimball, 2019). Furthermore, for the diminishing percentage of people who still stand to gain from this particular family formation[20] through inheritance, property, and care, walking away also comes with profound economic and social obstacles. What this phenomenon is showing is how many people are caught in this 'uncontrollable double bind' (Sedgwick, 2003) of yearning for both a livable fossil fuel free world *and* the lifestyle norms and material comforts that accompany bionormative visions of the future, now disrupted by the threat

[20] In Catherine Liu's book (2021) she speaks to the small percentage of people in the U.S. who still benefit from, and uphold, the nuclear family. Liu argues that the biases of this 'Professional Managerial Class' shift politics away from broad demands for economic redistribution and instead toward individual consumption and inward-looking interpersonal politics, and that holding onto the nuclear family formation plays a key role.

of climate change. In response to Haraway's call, Jennifer Mae Hamilton stresses the immense psychic and physical work necessary to shift from this property-bearing family and confront the perceptions of failure and accompanying shame in trying to abandon such futures (Hamilton, 2019).

Another reason that the promises of *Make Kin Not Babies* are so challenging to actualize can be sensed in how individualized myths of freedom and choice clash with the material world of surplus. As Neel Ahuja argues, if freedom in capitalism means high-energy-input consumption and the dumping of wastes, so-called sovereign subjects are submerged in processes linking the reproduction of the ordinary to the extermination of various life-forms (Ahuja, 2015, p. 367). Thus, visions of freedom predicated on both the reproduction of the nuclear family and the refusal of it are wrapped up in carbon privileges that unevenly distribute precarity (Ahuja, 2015, p. 367). Under the banner of freedom of choice, reproduction is often envisaged *within* the bounds of the bionormative family. Yet, this freedom depends on the reproduction of migrant workers for electronics and animals for medicine. While the activists articulate their aims as reproductive justice, their reliance on personal testimony to explicate their demands often centers the individual over the collective and ignores the way in which reproductive justice is always a multi-sited, multi-species affair. In an increasingly precarious world of toxicity and violence, the climate crisis demands distributed reproductive justice "beyond babies, birth and bodies" (Murphy, 2018, p.110).

The End End

As Tim Etchells and Matthew Goulish of *The Institute of Failure* remind, failure is integral to understanding a concept, system, or action (Etchells, n.d.). These groups have failed to show a picture-perfect example of *Make Kin Not Babies*; yet both groups oscillated between

visions of non-nuclear familial relations and biogenetic, normative visions of family. This theoretical incoherence speaks to the depth of this sticky concept and how difficult it is to challenge, change, or abandon it in contemporary Western society. In December 2020, Conceivable Future re-tweeted Authentic Black Girl's post saying, "My fiancé and I are childless, but I intentionally call us two a "family" to interrogate the myth that "starting a family requires children" (@NatashaMLee, 2020). Likewise, the co-founder of Conceivable Future, Meghan, has begun to ask, "what parenthood and engaging with kids could mean if we don't have a biological child?" (Podolsky, 2016). These statements resonate with Haraway's proposition to interrogate myths and re-story the family. *Make Kin Not Babies* gestures towards a much-needed unsettling of the family as a unit of accumulation and discipline. These examples highlight how, for these groups, the absence of their anticipated futures has opened space to imagine alternative ways to kin.

The fact that even these sophisticated players have been stuck in population and family values discourses demonstrates how difficult it is to avoid thinking with these structures. It is arduous to grieve the loss of cultural institutions when society has not envisioned and supported adequate replacements. At the heart of these activists' discussions is a pronouncement of their profound double bind, their desires to both maintain the status quo and radically transform it. Can the theorizations from feminist Science & Technology Studies (STS), Haraway's and others, be mobilized practically to help people struggling through this double bind?

According to scholars in feminist STS, kinship can be unintentional, unwanted, or unknown entanglements with other beings, chemicals, across lifetimes and between generations (Dow & Lamoreaux, 2020[21]); it can be made through "the food, sweat, care, joy, and sorrow

[21] Dow & Lamoreaux are drawing on the work of scholars such as Heather Davis (2015), Zoe Todd (2017), and Nigel Clark & Kathryn Yusoff (2018).

shared in everyday exchanges" (Dow & Lamoreaux, 2020[22]). For instance, Naomi Klein has written about her own infertility as a slow violence, not some spectacular event, but an "an absence" that led her to forge multispecies kinships with infertile non-human others (Klein, as cited in Davis, 2015). As Ahuja (2015, p. 370) posits, in the face of staggering "reproductive failures" across the human and nonhuman world "exercising a phantasmic 'choice'" to refuse reproduction might be redundant. Instead of reproductive decisions (e.g., childless by choice, childbearing strikes, or conversations about whether not to procreate), feminist STS can provoke greater expansiveness in reproductive justice.

Haraway's concern about the 'booming silence' in feminist scholarship doesn't need to be met with an endorsement of her concerns around human numbering and biogenetic kin. Rather, it can be a call to gather in this silence to offer analysis and make kin with the activists doing the unbearable work of grappling with this double bind and sifting through the noise.

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[22] Dow & Lamoreaux are drawing on the work of scholars such as Saidiya Hartman (2008) and Carol Stack (1983).

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Case Study 2—Part 1:

Remixing Environmental Icons for a Better Future[23]

Greta Thunberg poses for a photo during a visit to the Standing Rock Sioux Reservation. Photo courtesy of Chad Nodland, 2019.

Symbols of environmental precarity have long circulated in the U.S. media landscape. Before images of cooling towers came to represent nuclear danger and starving polar bears global warming, two of the most famous icons of early mainstream environmentalism were the Innocent Child and Ecological Indian. These allegorical figures derived from older, cultural stereotypes—repurposed to shame and educate Americans about waste disposal practices.

In honor of Earth Day's 50th anniversary, it is worthwhile to look back at its early days and examine these influential media references. Doing so allows us to see how these symbols have been deployed, trace how they continue to shape public perceptions of environmentalism, and ask why they have such a hold over our collective imagination.

Keep America Beautiful

[23] Lakind, A. (2020, April 14). Remixing Environmental Icons for a Better Future. *Edge Effects:Center for Culture, History, and Environment: Digital Magazine*. https://edgeeffects.net/remixing-environmental-icons-for-a-better-future/ Minor revisions and updates have been added to this text.

In 1969, Wisconsin Senator Gaylord Nelson hired a team of young activists to organize events nationwide intended to spark a larger, more diverse environmental movement (Hamilton, 2009). On April 22, 1970, they launched the first Earth Day with the hopes of fostering a broad-based coalition for environmental change where an array of problems from "the hungry child in a land of affluence" to issues of inadequate housing might be addressed through an overarching environmental lens.

Earth Day's popularity was also attended by institutional and corporate framing. As Finnis Dunaway (2015) points out, prominent imagery (often deployed through advertising) helped narrow political imagination and constrain environmental action in part through an emphasis on individual behavior such that reusable bags and "tree-planting children" became icons of model environmental citizenship.

A prime example of the corporatization and individualization of environmentalism is the Keep America Beautiful (KAB) campaign. KAB was directed by executives at Coca-Cola, Philip Morris, Anheuser-Busch and other industry leaders in the 1950s to deflect environmental action from packaging producers to consumers. As environmentalists called for "bottle bills" to require reusable containers for soft drinks, the industry fought back by promoting litter cleanup.

Images of the Innocent Child and Ecological Indian were key to KAB's strategy of redirecting environmental action away from production toward personal responsibility. Children have often been used to highlight the threat environmental dangers pose in campaigns ranging

from nuclear fallout[24] to water quality.[25]As logical necessities to extend species survival, children serve as a symbol for futurity—an "anchoring point" which collects desires and holds potential for action. Likewise, the Ecological Indian has become an environmental icon, predicated on entrenched stereotypes of Native Americans as peaceful environmental stewards of the past. Drawing on these symbolic connections, KAB framed litter as a threat to the nation's natural beauty and portrayed environmental degradation as a moral, not a structural, problem.

The Innocent Child

A prime example of Innocent Child iconography is Susan Spotless, a character created by KAB to recruit parents into their cleanup crusade. Susan Spotless tapped into idealizations of the nuclear family and good parenting: if viewers were not committed to litter cleanup for themselves, Susan Spotless urged them to do it for the children. She presented as cute and harmless and scolded grown-ups with a play on words ("little" and "litter"), mocking the speech patterns of young children.

[24] See the "Daisy" Ad, a political commercial for President Lyndon B. Johnson's 1964 campaign against Barry Goldwater showing a three-year old in a meadow picking pedals off a daisy overlaid with the countdown to a missile launch and sounds of a nuclear explosion. Zooming in on the pupil of the girl we see a mushroom cloud and the words: "These are the stakes! To make a world in which all of God's children can live, or to go into the dark. We must either love each other, or we must die." (Library of Congress, 2016). And see Dunaway (2015) for analysis on media depictions of the innocent child.

[25] For an example, you can see the United Nations Children's Fund report, "Thirsting for a Future: Water and Children in a Changing Climate" (UNICEF, 2017).

Keep America Beautiful Campaign character Susan Spotless (Propaganda & Advertising, 2020)

Beyond their capacity for shaming adults, the Susan Spotless ads reveal KAB's intention to advertise to white affluent citizens and promote the message that environmental problems need not be understood in relation to disparities based on place, race, or class. Whiteness pervades the ads—a white child in an all-white costume disposes of garbage against a white background—creating a nonspecific context that seems to signify universality. Yet, the idea that a young white girl could serve as a universal symbol is highly racialized. The white child, undergirded by ideologies of innocence, is seen as sacrosanct and requiring of protection. This stands in contrast to children of color who are often depicted as resilient, unruly, and in need of management. Such exclusionary messaging helped solidify the narrative that environmentalists were uninterested in diversity or systemic injustice. Further, the Innocent Child, as shorthand for morality, was used by KAB to make the claim that picking up litter was an act of virtue.

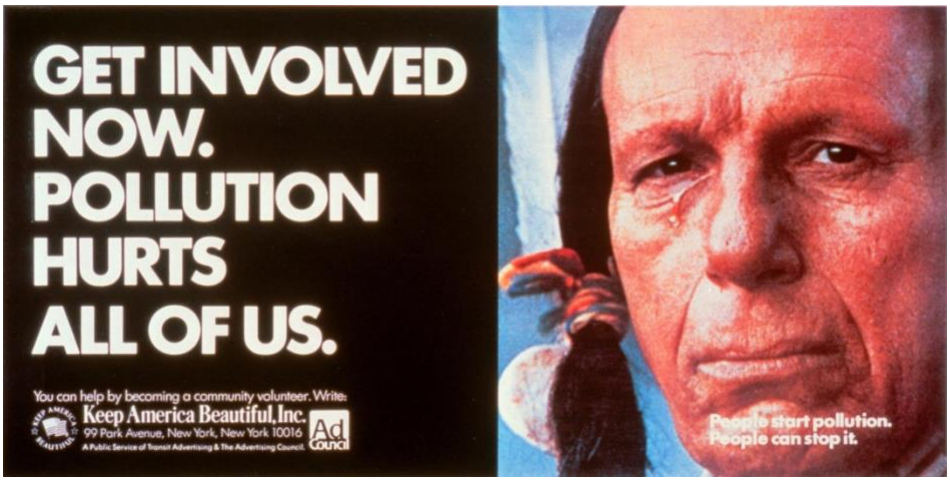
Litter cleanup is no longer the rallying cry of contemporary environmentalists but saving the earth for "our grandchildren" is still a common refrain. Yet, as Rob Nixon (see Dawson, 2011) reasons, "what the grandchild approach obscures is the role of transnational, often imperial economic practices whereby someone else's grandchildren—in a distant land and a distant

decade—will be inheriting the problems that affluent people in the here and now outsource." KAB advanced visions of environmental actions as best practiced in the private sphere; taking care of the home and, by extension, the nation eclipsed a view that could account for geopolitical complexities of multinational corporate capitalism.

This sanitized version of environmentalism has continued to plague the movement; individual acts like biking or purchasing zero-emission vehicles have overshadowed systemic concerns such as underfunded public transit and an oil-driven military industrial complex. Instead of the overarching environmental lens Earth Day hoped to inspire, Susan Spotless depicted litter cleanup as a sufficient way to protect the environment for future generations. But she didn't do it alone.

The Ecological Indian

KAB's 1971 Crying Indian commercial has become a cultural icon, well-known enough to parody on South Park and the Simpsons. The actor, Iron Eyes Cody, dressed in mid-19th-century Plains regalia (beads, buckskins, and braids), travels by canoe to a littered shoreline and sheds a single tear. Uncontaminated by modernity, he appears as a specter of precolonial America, emerging from the past to impart ecological wisdom on the present. Unlike Susan, the Crying Indian is nameless; removed from historical, geographical, and cultural context, he is confined to romantic nostalgia without any visible present or future.



Keep America Beautiful Campaign character Crying Indian (Keep America Beautiful, 2021)[26]

KAB used the Crying Indian as a symbol of national identity to create associative bonds between critiques of overconsumption and litter cleanup. In an emerging Euro-American nation-state, projecting historical myths through an imagined Indian helped create a distinctly Euro-American identity, defined in opposition to a racialized "Other." This colonialist fantasy is still embedded in contemporary U.S. culture: the widespread tradition of "Playing Indian" is at work in the Washington football team's logo (see Belson & Kevin Draper, 2020) and Ke$ha's costumes (see Keene, 2010).

As Shepard Kerch III (1999) details, premised on oversimplified narratives of Europeans destroying unspoiled nature, the Ecological Indian came to represent a time gone by when people lived in harmony with land. Viewing Native Americans as representative of wilderness worked in tandem with perceptions that they impeded progress and didn't participate in modernity. By the 1920s, this imagined Indian was reinvested with ethical and aesthetic values in opposition to rapid industrialization and spiritual decline.

[26] Keep America Beautiful 1971 Ad Campaign, "People Start Pollution, People Can Stop It", featuring Iron Eyes Cody, the "Crying Indian." Image copyright image held by The Ad Council.

In the era surrounding the first Earth Day, the Red Power movement took action to enact and envision decolonial, sustainable futures. This widespread youth-driven Indigenous resistance contradicted mistaken perceptions that Native Americans were at odds with modernity, showing how Indigenous movements are key players in the present and future of North America. Yet, the Ecological Indian gained a foothold in the mainstream U.S. cultural imagination through the Crying Indian commercial.

These preformed perceptions became particularly valuable for 20th-century environmentalism's countercultural critique of industrialization. Susan Spotless and the Crying Indian stand together, two sides of the same coin. On one side, a young white girl is tied to futurity, her innocence premised on the idea that she is free of a past. On the other, a lone Native American serves as the emblem of imperialist nostalgia, a ghost of the past reminding industrialized society what it's lost.

This dyad has been adapted toward a wide array of sentiments communicating what is "good" and "normal." Fused with notions of innocence, as Barbara Baird (2008) argues, the child's best interest becomes "a discursive category with which one cannot disagree." Likewise, the Ecological Indian presents a view of Indigeneity as antithetical to modernity and affirms the myth that settler colonialism is settled. And in certain strains of contemporary environmentalism, the Innocent Child and Ecological Indian continue to naturalize a host of problematic ideologies that depoliticize colonization, promote white futurity, and reduce children and Native Americans to blank slates that can be projected upon.

Beyond the Frame

Despite the persistence of these imagined characters, there have been continual efforts to reconceptualize their legacy. In October 2019, Tokata Iron Eyes, an activist best known for her

role in Standing Rock's fight against the Dakota Access Pipeline, invited her contemporary, Greta Thunberg, to share the stage at a Climate Forum in the Standing Rock Sioux Reservation. During the event, a Sioux leader honored Thunberg with the Lakota name: "maphiyata echiyatan hin win" or "woman who came from the heavens." After, Shane Balkowitsch photographed Thunberg using a collodion wet plate process—a popular technique of 19th-century photography. The photo has since been preserved at the Library of Congress.

Thunberg at the Standing Rock Sioux Reservation, a symbolic site for global climate justice. Thunberg was given a ceremonial necklace and a Lakota name, after which this photo was taken using a 19th-century photographic process by Shane Balkowitsch (2019)

Thunberg's portrait contains traces of the Innocent Child and Ecological Indian. In it, a young girl stares into the distance toward a better future, one void of the colonialist corruption fueling the climate crisis. But the photo also gestures toward a static past. The photographer, whose business is called Nostalgic Glass, wanted to "immortalize" her visit, depicting her as a singular force frozen in time. Reading Thunberg's portrait through stereotypes of the Ecological

Indian, the items she wears from the ceremony seem symbolic of a conferred moral authority. She has been given the stamp of approval from those presumed to be most attuned to the environment. This presumption can tap into a tendency to look at Indigenous relations with the non-human world in an ahistorical or metaphysical way, what Nick Estes identifies as a form of ethno-othering, where Indigenous populations are collapsed into a spiritual connection between land and water (see Denvir, 2019).

Celebrity has the potential to fuel power, but it can also defuse and contain it as its status is usually bestowed upon legible figures. Since her rise to fame, there have been widespread critiques regarding Thunberg's celebrity that question why less attention has been paid to youth activists of color. Yet, the visual legacy of the Innocent Child answers this swiftly: of course, the figurehead of youth climate futures looks like Thunberg. And yet, unlike her predecessors Susan Spotless and Crying Indian, Thunberg is both an icon and an actual person (see Witt, 2020). She has agency to radically reclaim and remix these tropes.

Thunberg's iconic status must also be contextualized within the larger youth climate movement, which demonstrates great media-savvy in its ability to play on the child's assumed role. The premise of School Strikes for Climate prompted slogans like "If you don't act like adults, we will" and "This can't wait 'til I'm bigger." Thunberg's own ability to perform and subvert the assumed role of the Innocent Child is key to the spectacle and the politicization of this movement. By both reinforcing and challenging this role, she complicates the simplified ethical codes of childhood innocence. And unlike the Crying Indian, who is silent, Thunberg has a megaphone with which she attempts to rewrite mainstream narratives. She is not harmlessly scolding but threatening when she says, "The eyes of all future generations are upon you. And if you choose to fail us, I say we will never forgive you." Speaking for youth using "we" instead of

"I" undermines her depiction as a singular leader rather than a member of a movement, and she tries to turn the media toward activists other than herself.

Greta Thunberg and Tokata Iron Eyes Sunday, Oct. 6, 2019 at the Red Cloud Indian School Fieldhouse in the Pine Ridge Reservation. Chynna Lockett / South Dakota Public Broadcasting (Rausch, 2019).

At Earth Day 1970 and 2020, environmental justice is highly visible. To maintain this focus, we need to be wary of the deployment of symbols that can be easily manipulated towards problematic ends. The Innocent Child and the Ecological Indian trap Native Americans in static pasts and children in distant futures. But, today, Native Americans and children practice many forms of activism, ceremony, and solidarity that are anything but fixed and remote. These dynamic practices connect past histories, present actions, and future consequences. By resisting the mechanisms that confine both children and Native Americans to narratives premised on colonialist desires, these movements have a vital role in dismantling stereotypes that constrain political imaginations.

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Case Study 2—Part 2:

Reading the Youth Climate Movement: Social Media, Literary Creation, and Allyship[27]

In recent years youth activism has become a formidable force in the global social and political landscape. Specifically, the School Strikes for Climate (SSC) are reshaping environmental priorities and providing new frameworks, logics, and directions for action on climate change. In so doing, I will suggest, these movements expand and challenge existing approaches and structures to climate education, shifting how and where learning occurs. Using social media as a primary tool to organize and communicate, youth activists proffer a view of climate change as a crisis of intersecting unsustainable systems that cannot be addressed with a narrow focus on carbon in the atmosphere. Even without geographical, ideological, or cultural consensus, these strikes (and the organizing around them) offer the broader climate movements a chance to learn about the power of youth and the interconnected issues of climate change and justice.

As youth activists confront the inadequate ways prior movements have attended to issues of justice, they've scrutinized mainstream Western environmental messages. For example, numerous authors have critiqued slogans such as "think locally, act globally" and "we are all in this together." As environmental studies theorist Rob Nixon reminds,[28] we may be in this together, but not all in the same way. For instance, as the impacts of climate change intensify over time, young people will experience greater consequences than older generations. Further,

[27] Lakind, Alexandra, "Reading the Youth Climate Movement: Social Media, Literary Creation, and Allyship" in Climate Change Education: Reimagining the Future with Alternative Forms of Storytelling, ed. Rebecca Young (Washington DC: Lexington Books of Rowman & Littlefield Publishers, forthcoming 2021)

[28] Rob Nixon, "The Anthropocene: Promise and pitfalls of an epochal idea," Edge Effects, (November 6, 2014). https://edgeeffects.net/anthropocene-promise-and-pitfalls/

contemporary champions of climate justice reject the once-popular vision of the universal "we" wherein *everyone* is implicated, and where the *everyone* is too often depicted as Western, white, and middle class, erasing the complex and intertwined histories of colonialism and capitalism that manifest in present-day issues of environmental injustice.[29] In a sobering analysis, the youth climate movement calls out how adults, who promised to protect them, have burdened them with the impossible task of complete global economic and social restructuring. More than just criticizing adults, the youth climate movement has sought to educate and mobilize in ways that overcome the failures of previous environmental movements.

There is a new canon of literature showing the vast interconnectedness between issues of climate change and social justice emerging, thanks to countless new texts published and shared through social media. This canon is being determined socially and collectively. One post, for example, teaches the reader about Indigenous justice simply by listing accounts that one might follow alongside the text: "make time to learn about the stolen land you're on." This chapter asks educators to consider integrating these texts into their lesson plans. The texts are short, but the form varies widely from 280-character tweets to hashtags written atop images. Below is a post created by Métis artist Kim Stewart of her countermapping practice where she uses beadwork to challenge settler assumptions represented through objects such as economic maps that delineate space based on notions of property. This image was re-shared by youth activists with the accompanying text: #landback, a hashtag popularized in 2019 premised on a movement to return land to Indigenous peoples, protect Indigenous knowledge of environmental stewardship, and advocate for caring relations to the human and non-human world. Social media platforms encourage users to make content quickly, often by re-posting and re-mixing. Combining the

[29] Finis Dunaway, "Gas masks, Pogo, and the ecological Indian: Earth Day and the visual politics of American environmentalism," *American Quarterly, 60,* no.1, (2008).

popular slogan #landback with this image demonstrates the way climate activists are drawing connections between Indigenous rights and climate justice. By using social media to generate poetic responses to one another, activists are able to bring multiple ideas and movements into conversation with one another.

Artist Kim Gullion Stewart, pas finii, 2020[30]

Furthermore, thanks to new public-facing roles, youth activists' position as key figures can question core assumptions that can inform new strategies that re-frame children and the educational discourses through which they are often defined. In alignment with recent scholarship about the political agency of youth, the roles taken up by youth climate activists prompt a reconsideration of the dominant Western views of children. As a large-scale global

[30] Kim, Gullion Stewart @kim.art4life. 2020. "Beadwork is coming along on the 1950's economic map of western Canada." Instagram, September 16, 2020. https://www.instagram.com/p/CFNR60FB1UE/ This piece is titled *pas finii*, which means 'not finished' in Michif and refers to the ongoing negotiation over Canadian economic resources like those listed on the map. The completed piece, titled "They make a well beaten path" uses this Métis style floral beadwork on this economic map from a 1947 Dent's Canadian School Atlas. In 2021, this piece was acquired in the collection of Indigenous Art Centre, Crown-Indigenous Relations and Northern Affairs Canada, Gatineau, Quebec.

movement, SSC effectively challenge obstructive, oppressive relations between children and adults undergirded by conceptions of children as non-political actors, receivers of knowledge, and emblems of innocence. In many educational situations, these underlying assumptions are commonplace and inform adult/child relations, pedagogy, curricula, and educational design. In climate activist circles, adults are either urged to act as political agents on *behalf of* children or to act to prepare youth to be *future* political agents. Yet, as evinced by the youth activists and elucidated in contemporary theorizations on the political agency of children, youth are *already* agents of change. Even at very young ages, children not only accept the roles presented to them by adults, but question, avert, and transform them. The aversion exemplified in SSC has transformative power. Through public action, youth activists highlight their social categorizations as both subjects and objects, capable of making change while still seen as needing to be told what to do. In so doing, youth are teaching adults and the wider public to re-think complex arrangements between the present and future generations.

In this chapter, I first explore the junctures between youth activism and social media. Following the view that people experience the world in relation to broader narratives that shape identities and perspectives, I argue that educational structures must account for this widespread global shift in youth/climate narratives bolstered by communication through platforms such as Instagram, Twitter, and Tik Tok. Further, understanding the social and historical contexts in which youth operate is essential in the ongoing task of determining which narratives are being reproduced as a method of finding sites where new horizons are possible. I then share work by a youth activist spoken-word poet as a lead-in to an activity called the “100s” to examine social media representations of SSC. Akin to the modes of communication youth activists take part in on social media, the 100s encourages brevity, experimentation, and analysis while advancing the

perception that youth activists are the principal authors to read for lessons towards climate justice, hashtags and posts the texts in which they write. Lastly, I argue that educators are uniquely positioned to advance climate justice as envisioned by SSC. SSC have gained traction as activists highlight their status as youth to call attention to the incongruities between climate uncertainties and educational systems designed around assumed and known futures. Educators already reckoning with increasing environmental precarities can act as essential allies in re-imagining schooling by advancing justice-driven reconceptualizations of children and the climate crisis.

Social re-making and social media literacy

As John Dewey (1897) observed,[31] societies turn to new ways of understanding children in times of crisis. In the field of childhood studies, there is a burgeoning canon of work articulating the reconceptualization of children taking place in this new ecological epoch, the Anthropocene. Childhood studies scholars suggest that the climate crisis might offer openings to re-story notions of the child; dismantle educational systems that oppress based on the category of one's age; and reshape educational spaces to honor children and their needs.[32] Dominant Western worldviews often position children as subservient to adults, and in turn, treat them as such in social and political terms. In the U.S., children and adolescents (legally defined as "minors" until the age of 18) are expected to have less economic, political, and social agency. In this worldview children are considered to be less intellectually and emotionally developed, lacking 'reason'

[31] John Dewey, "My pedagogic creed." *School Journal*, 54, no. 8, (1897).

[32] Alexandra Lakind & Chessa Adsit-Morris, "Future Child: Pedagogy and the Post-Anthropocene," *Journal of Childhood Studies*, 43, no.1, (2016); Veronica Pacini-Ketchabaw & Fikile Nxumalo, "Regenerating research partnerships in early childhood education: A non-idealized version" in *Research partnerships in early childhood education: Teachers and researchers in collaboration*, eds Judith Duncan and Lindsey Conner, (New York, NY: Palgrave Macmillan, 2013); Rebekah Sheldon, *The child to come: Life after human catastrophe*, (Minneapolis: University of Minnesota Press, 2016).

which has long been considered necessary to participate in adult society. These are the tenets upon which U.S. educational systems are often designed, leading to top-down hierarchies and pedagogical practices wherein knowledge is presumed to be gained through a unidirectional transference from teacher to student, rather than shared, horizontal structures to support the reciprocal nature of learning. Importantly, towards this end, the youth climate movement is re-setting adult/child hierarchies, re-positioning youth and adults as equally important contributors in efforts towards social and environmental justice. To many, 'childhood' and 'political agency' are antithetical. Therefore, as Ethnic Studies Professor David Alberto Quijada (2009) posits,[33] when youth take political action, they offer a way of rethinking youth within the youths' own paradigm. Social media technologies have contributed to this reorientation, positioning youth as public content creators who can reciprocally engage in global and political dialogues. Contemporary youth activists demonstrate that they are stakeholders ready to make valuable contributions, reconfiguring long-held power relations.[34]

A paradigmatic example of a powerful youth can be seen in celebrity activist Greta Thunberg. Thunberg began her strike with a sign that read "School Strike for Climate" in Swedish, *Skolstrejk för klimatet.* This action garnered attention as youth across the globe joined in to skip school, making headlines by refusing to participate in the primary social institution (besides family) meant to prepare them for their adult futures. Thunberg used social media to encourage other young people to become leaders, rather than followers, inspiring a diverse

[33] David Alberto Quijada, "Youth debriefing diversity workshops: conversational contexts that forge intercultural alliances across differences," *International Journal of Qualitative Studies in Education*, 22, no. 2 (2009).

[34] Jacqueline Kennelly, "Citizen Youth: Culture, Activism, and Agency in a Neoliberal Era Palgrave Macmillan," in *Contemporary Youth Activism: Advancing Social Justice in the United States*, edited by Jerusha Conner & Sonia Rosen (Westport, Connecticut: Praeger Press/ABC-CLIO Books, 2016).

movement as youth expressed their own visions of climate justice relevant to their own communities.

From Thunberg's calls to action, Vanessa Nakate began to protest outside the parliamentary gates in Kampala, Uganda. Nakate used social media to encourage others to join, eventually starting a local strike large enough to gain national attention. She founded Rise Up to amplify Africans' voices and bring attention to The Congo Basin. In Wisconsin, USA, while organizing local SSC protests, Max Prestigiacomo and Stephanie Salgado founded Youth Climate Action Team (YCAT). Prestigiacomo and Salgado claimed that Instagram has been their sole organizing platform saying, "just a few clicks on social media can change hearts and minds." They have since become local leaders advocating for a diverse range of issues. As of 2020, Prestigiacomo has been elected to serve as alderman on the Madison City Council, becoming the youngest elected official in the U.S., and Salgado has been given a seat on the Governor's Task Force on Climate Change.[35] During a fall 2019 climate strike a reporter asked Salgado when the next march would take place, to which she answered, "when Greta Thunberg decides to make it."[36]

Tapping into the emergent youth climate movement, SSC have become central in contemporary climate narratives. Yet, movements do not happen in a vacuum; they exist within the socio-political landscapes of their time. These strikes have been influenced by predecessor Western social movements, including the environmental and labor movements of the 20th and 21st centuries. For example, Thunberg's group Fridays for the Future uses the cartographic globe as their organizational logo. Since NASA's 1968 *Earthrise* photo of Earth from space,

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[35] In the U.S. this focus on electoral politics in the movement has been exemplified by local groups like Youth United 4 Climate Crisis Action and national groups like Sunrise Movement and Justice Democrats, best known for elevating the status of the Green New Deal and recruiting, and supporting, the campaigns of progressives like Alexandria Ocasio-Cortez.

[36] Sam Jones and Tenzin Woser, "Climate Strike Draws Hundreds to Downtown Madison" (Madison Commons, September 25, 2019). https://madisoncommons.org/2019/09/25/climate-strike-draws-hundreds-to-downtown-madison/

environmentalists have latched onto the globe to symbolize the interdependence of life on this planet. Fridays for the Future's logo provides a direct reference to previous generations of environmentalism.

However, one key aspect that distinguishes contemporary social movements from past movements is the use of social media, which has amplified the interconnectedness of social movements. Recent research on youth and social movements has shown the importance of the internet as a defining site for political engagement.[37] Social media has become essential in forming and introducing new political relationships and ideological stances. Thus, for SSC, the rise of momentum-based organizing work, hashtags such as #NoDAPL and #BlackLivesMatter, have proved formative.

For a prominent example of social media use in activism, consider the protests in Standing Rock Reservation to halt the construction of the Dakota Access Pipeline, which began when youth from Standing Rock and surrounding Native American communities launched a social media campaign, ReZpect our Water. In a viral video, Tokata Iron Eyes, AnnaLee Yellow Hammer, Precious Winter Roze Bernie, and Winona Gayton call on intergenerational and international participation to resist the pipeline and defend Indigenous sovereignty. The hashtag #NoDAPL became a shared slogan signifying entanglement between the genocidal and colonizing foundation of U.S. expansion and threats posed to clean water and a livable planet. These issues have stayed front-and-center in continued iterations of youth climate movements across the globe. In addition, the mobilizing hashtag and organization #BlackLivesMatter,

[37] Melvin Delgado and Lee Staples, *Youth-Led Community Organizing: Theory and Action* (New York: Oxford University Press, 2008); Ben Kirshner, "Guided participation in three youth activism organizations: Facilitation, apprenticeship, and joint work," *Journal of the Learning Sciences*, 17, no. 1, (2008); Dana. L. Mitra, Adults advising youth: Leading while getting out of the way. *Educational Administration Quarterly*, 41, no. 3, (2005).

created by Alicia Garza, Patrice Cullers, and Opal Tometi, has clarified the interconnected nature of racial injustice and economic exploitation and the correlation of a violent military system abroad and a militarized police practice at home.[38] Following the shooting at Marjory Stoneman Douglas High School in Parkland, Florida, youth activists used Twitter as a primary venue to organize March for Our Lives.[39] Organizers spoke of their debt to #BlackLivesMatter as young Black activists across the U.S. joined in solidarity with the march to end gun violence. It is March for Our Lives that Thunberg cites as her inspiration to begin her School Strike for Climate.

In recent years, Instagram has become a primary place for young activists to absorb and communicate stories of climate change. Through videos, images, and texts Instagram allows users to share succinct multimodal stories, which are woven into narratives through a networked structure that users navigate through feeds, likes, and hashtags. In September 2019, in an interview on a local radio station, leaders from the Wisconsin-based Youth Climate Action Team urged adults to re-think their prejudices towards Instagram, suggesting that youth "scrolling throughout the day" are being exposed to the climate crisis. They claimed Instagram had been their most powerful organizing platform, speculating that "just a few clicks on social media can change hearts and minds." While these comments highlight the influence of Instagram, they ignore valid concerns regarding the ways social media creates "risky settings" for youth to engage political dialogue,[40] exposing youth to increased misunderstandings and vulnerabilities.

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[38] Bernadine Dohrn & Bill Ayers, "Young, Gifted, and Black: Black Lives Matter!" In *Contemporary Youth Activism: Advancing Social Justice in the United States*, edited by Jerusha Conner & Sonia Rosen, (Westport, Connecticut: Praeger Press/ABC-CLIO Books, 2016).

[39] Carrie James and Megan Cotnam-Kappel, "Doubtful dialogue: how youth navigate the draw (and drawbacks) of online political dialogue," *Learning, Media and Technology*, 45, no. 2, (2019).

[40] Thorson, Kjerstin, "Facing an Uncertain Reception: Young Citizens and Political Interaction on Facebook." *Information, Communication & Society*, 17, no. 2 (2014); Ariadne Vromen, Brian D. Loader, Michael A. Xenos, and Francesco Bailo, "Everyday Making Through Facebook Engagement: Young Citizens' Political Interactions in Australia, the United Kingdom and the United States," *Political Studies*, 64, no. 3 (2016).

Instagram is a photo and video-sharing service owned by Facebook that relies on user-generated content shared as people connect with others on the site. These connections help generate links between disparate data sets based on social interaction. However, the design of Instagram stands in contradiction to the aims of climate justice in that it is predicated on extraction and commodification and encourages screen-time, which can result in users identifying with causes without taking action. The core of the commercial value and activity is premised on captivating attention and instrumentalizing social interaction so online services can collect, process, and synthesize data to profile users and generate targeted advertising and personally relevant suggestions.[41] Many authors have raised concerns about these practices regarding issues of surveillance and privacy,[42] and the way in which the algorithms that dictate our lives are opaque, unregulated, and reinforce discrimination.[43] According to design critic Alexandra Lange, Instagram's form favors bold colors and patterns and few elements and details. This glossy, reductive, and universalist aesthetic fuels the "Instagram gaze" of expensive lifestyles, which can create anxiety for people who look and live differently. Regardless of these drawbacks, as researchers have demonstrated, youth spend a considerable amount of time and effort with social network sites.[44] Thus, to address these concerns, educators cannot avoid social

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[41] Amy Gaeta, "Do Algorithms Know Your Body Better Than You?" *One Zero* October 27, 2019; Tim Wu, *The Attention Merchants: The Epic Scramble to Get Inside Our Heads* (New York: Knopf, 2016).

[42] Shoshana Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (New York: Public Affairs, 2019); David Lyon *Surveillance as Social Sorting: Privacy, Risk, and Digital Discrimination* (New York: Routledge, 2003).

[43] Cathy O'Neil, *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy* (New York: Crown Publishers, 2016).

[44] danah boyd, "Why Youth (Heart) Social Network Sites: The Role of Networked Publics in Teenage Social Life" in *Youth, Identity, and Digital Media*, ed by David Buckingham, (Cambridge: The MIT Press, 2007); danah boyd and Nicole Ellison, Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13, no. 1, (October 2007).; Christine Greenhow, "Youth Learning and Social Media," *Journal of Educational Computing Research*, 45, no. 2, (2011).

media. Supporting media literacy can offer space for youth to explore their identities[45] and respond to limiting mainstream narratives.[46] To empower students to engage proactivity with social media, educators need to foster a critical literacy, systemic thinking, and an awareness of user privacy rights and the impacts media consumption has on their perceptions and behaviors.

Precisely because young people use social media to read and write their world, educators can cultivate media literacy from their practices to promote climate-justice. As posited by Paulo Freire, reading the word is a continuous process of reading the world. Reading cannot occur independently from the world of the reader. Now, readers are enmeshed in new media technologies that are rapidly changing how they read and *write* their worlds. Youth are active in participatory cultures, to borrow from Jenkins,[47] involved in both the production and consumption of media that can be widely and instantaneously shared. Youth voices, previously left in the backyard or on the playground, are now being amplified by social media platforms as part of a larger public discourse. Correspondingly, what counts as literature, and by extension, writing, has expanded beyond print-based texts to include artifacts found in video games, film production, and social media.[48] The social media of social movements offer educators new reading materials as well as new compositional forms. This literature can drive classroom inquiry

[45] Erica Rosenfeld Halverson, "Film as identity exploration: A multimodal analysis of youth-produced films," *Teachers College Record, 112,* no. 9, (2010).
[46] Jen Scott Curwood and Damiana Gibbons, "Just Like I Have Felt": Multimodal Counternarratives in Youth-Produced Digital Media," *International Journal of Learning and Media*, 1, no. 4, (2009); Jeff Duncan-Andrade. "Urban Youth and the Counter-Narration of Inequality." *Transforming Anthropology*, 15, no. 1, (2008).

[47] Henry Jenkins, *Convergence Culture: Where Old and New Media Collide,* (New York: New York University Press, 2006).

[48]Erica Rosenfeld Halverson and Damiana Gibbons, "'Key moments' as pedagogical windows into the digital video production process." *Journal of Computing in Teacher Education, 26*. no. 2, (2010); Mizuko Itō, *Hanging out, messing around, and geeking out: Kids living and learning with new media*. (Cambridge, Mass: MIT Press, 2010).

to enable students to reflect more critically on climate change and thus write a more livable future.

Xiuhtezcatl Martinez: Spoken Word Poet & Youth Climate Activist

Youth activist Xiuhtezcatl Martinez has been in the spotlight since childhood. At 6 years old Martinez lamented at an environmental event how "most kids don't even know the world *is* sacred." By 2019, at age 19, Martinez's Instagram had over 100,000 followers. He uses social media as a primary venue to publish and circulate his beliefs about the non-human world. This section acknowledges Martinez's posts *as* climate literature to reshape assumptions about what "counts" as literary text in alignment with expanding definitions of literacy education beyond print text, as discussed in the previous section. The following paragraphs frame the work of Martinez as an example of an influential youth climate activist author while offering pedagogical guidance on textual analysis.

In alignment with Martinez's Indigenous culture, his posts and practices embrace the oral tradition of sharing knowledge through songs, prayers, and music. As Indigenous peoples increasingly demand their oral traditions be taken more seriously in educational spaces,[49] including authors like Martinez offers an opportunity to affirm non-Western cultures. Further, oral texts can prompt educators to shift literary analysis away from its roots in dominant Western practices towards more generative methods. Indigenous authors have articulated that oral texts are best understood by engaging with messages presented to the listener repeatedly in a dialogic space where conflicting interpretations are welcomed.[50] This process can produce new and

[49] Esther Ilutkik, "Eleven Years of Implementing Traditional Yup'ik Oral Stories in the Elementary Classroom." Paper presented at Orality in the 21st century: Inuit discourse and practices. Proceedings of the 15th Inuit Studies Conference, Paris: INALCO, 2009. http://www.inuitoralityconference.com.

[50] Julie Cruikshank, "Oral Tradition and Oral History: Reviewing Some Issues." *The Canadian Historical Review*, 75, no. 3, (1994).

diverse answers from students treated not as empty vessels, but as cultural beings capable of creating valid responses. In light of the impossible questions posed by the climate crisis, the topic necessitates teaching outside of "right" or "wrong" to engender holistic understandings animated by the thoughts and feelings that arise.

Below is the transcribed text from a video of Martinez reciting a piece of spoken word posted to his Instagram feed April 2020. As a prose poet, Martinez communicates in open-ended ways, passing along knowledge that nature is not separate from humans, about power and resistance, indigenous lifeways, and that climate change encompasses issues of politics and justice. He regularly demonstrates intertwined commitments to The Movement for Black Lives, Indigenous sovereignty, and environmentalism. Throughout Martinez's posts, his poetry pushes the boundaries between mediums and genres to offer a holistic view of climate action as boundless and imaginative, a product of civics, art, protest, and performance. I encourage teachers to engage with this type of material by performing recitations or sharing video rather than using written text. The goal in listening or reading is not to agree or disagree with Martinez, but to engage responsively, asking: *What do you think and how do you feel?*

> We build a legacy and leave it and y'all can't say my name, but you know it's me when you see it. I am indigenous, product of genocide, colonization stole my past, but I refuse to hide. Never alone though we hungry like a pack of wolves, howling at the moon, indigo is runnin through the woods. Tired of bureaucracy, sick of broken democracy, stories of the end fulfilling sinister prophesies. We overthrowin kingdoms, ready to break free from, leaders that lead with barrels of oil that be leaking, and leadership's a beacon. We leadin' ships to freedom.

To elicit poetic responses to poetry, questions might include, *what resonates, what comes to mind, what flickers, what memories are evoked, what colors or images do you see, what connotations are you drawing?* This can look like words or sentences, as fragmented and non-linear as makes sense to the person responding. This chapter makes the argument that the

literature published on social media by youth activists can offer educational settings the chance to engage with new forms of composition that illuminate the intricacies of the climate crisis. In the next section, I provide a lesson plan to engage with social media texts like that of Martinez to generate new poetic responses that can be shared on social media as well as through in-class recitations and oral performance.

The 100s: a pedagogical practice

To integrate the lessons of the SSC into more formal educational contexts, I want to suggest a practice called the 100s. As developed by English Professor Emily Bernard, the 100s comprise a writing activity predicated on the notion that no piece can go over 100 words. With a strict word count and focus on brevity, this writing practice aligns with current youth reading and writing practices on social media. In Bernard's open-ended approach, a writer launches their 100-word piece from anything that resonates or sparks their interest. This unassuming, flexible concept can be applied across numerous settings from classrooms to writing groups. In the "100-Word Collective," a collection of published 100s, Anthropologist Circe Sturm posits that this practice is enticing because the abbreviated format encourages greater dialogue and because writers of the genre tend to feel free to experiment with form and voice.

I learned of this practice while attending a spoken-word event of Kim TallBear, an esteemed Professor of Native Studies at the University of Alberta. TallBear has since applied this practice as a teacher, instructing her students to choose their favorite familiar slogan or hashtag and write 100 words. In this way, the activity mirrors the plurality of perspectives across the decentralized format of social media. For some the word-count is flexible, but for TallBear each piece is exactly 100 words. TallBear has cited a more rigid adherence to word count as a helpful

constraint in a discipline that she finds generative and inspiring.[51] TallBear's students use the 100s to describe Instagram posts as well as to create Instagram posts. With no 'right way' to interpret a post, TallBear's 100s provide her and her students a framework within which they can more freely read, write, and interpret the world.

The 100s offer a means for anyone to engage dialogically with the texts produced on social media: a parent and child, a classroom community, or a group of friends. As such this activity does not serve existing hierarchical structures and can be easily adapted to numerous sites and situations. In a recent workshop for Earth Day on visual idioms of the environmental movement, I used the 100s with 30 participants. Before dividing attendees into breakout groups of 3, I chose 10 prominent symbols such as the globe and the recycling logo. The groups were assigned a symbol and provided a list of guiding questions to discuss the rhetorical underpinnings of the symbol. Then participants were encouraged to find examples of these symbols being deployed on the social media accounts of youth activists. At the end of the session, each person was tasked to choose one social media post to prompt a 100-word piece. I later distributed the 100s to the group, each response below the corresponding chosen symbols. By focusing on existing idioms from environmental visual rhetoric, this activity invited adults into the sophisticated nature of youth climate activism, showing a nuanced perspective of public idealizations of environmentalism. Undermining the notion that teachers *have* knowledge and students *receive* knowledge, this workshop models a more decentralized configuration for participates to learn from one another.

When considering the use of Instagram in a lesson plan, it is important to understand the context and risks of this social media service outlined previously in this chapter. It is also

[51] Kim TallBear, Critical Poly 100s. *The Critical Polyamorist,* (July 14, 2020).

noteworthy that some students do not use social media, for reasons including issues of internet and device access.[52] Considering these factors, educators can ask students to participate as insiders or outsiders depending on their interests and expertise in social media and climate activism. Outside both climate activism and social media, educators and students can use this technique to examine key messages without any expectation of participation or posting. In this way, the 100s can accommodate educator allyship with students without explicit associations to the youth climate movement. On the other hand, for educators and students eager to forge unambiguous ties with climate activism on social media, the 100s can be assigned together with Instagram feeds to create brief, engaging texts that can be posted online and viewed as part of this ever-expanding dialogue.

Personally, I advocate for giving students agency over their own social media posting and profiles. I do not ask students to actually generate posts, just to examine the posts. By doing this, I focus on fostering the ability to navigate social media feeds that are flooded with visual rhetoric, advertisements, and subject to 'micro-targeting' of political messages. For students on and off social media, I believe the 100s can help to animate a desire to write their own stories—to not feel like their lives are determined by narratives they had no part in composing. To accomplish this, there are many alternative empowering ways for people to share their voices during a 100s lesson plan, ranging from the creation of group zines to spoken-word performances.

The 100s: an analytical creation

One of the fluidities of this practice is that it can serve both pedagogical and analytical aims. Below is a selection of ten 100s I've written prompted by slogans and hashtags from SSC.

[52] Katy Pearce, Rice E. Ronald, "Digital Divides from Access to Activities: Comparing Mobile and Personal Computer Internet Users," *Journal of Communication*, 63, no. 4 (2013).

I have adopted the practice as an analytical exploration, a method to reflect upon, and respond to, activist-generated texts I routinely encountered during a case study I conducted as a doctoral student in Education and Environmental Studies. Over the past few years, I attended strikes, panels, meetings, and public events; and followed media representations through social media, news, radio, speeches, and political blogs. Instagram became a primary tool for me to engage with many youth activists, perspectives, and strategies. Thus, to examine how representations of the youth climate movement replay, remix, and transform climate narratives in ways that also shift narratives about adult-youth relations, I analyzed 600 Instagram posts made between August 20, 2018 and December 2, 2020. Phrases repeatedly appeared on Instagram feeds such as "The earth or nowhere," "No one is too small to make a difference," and "I'm sure the dinosaurs thought they had time too." The youth activists' use of Instagram inspired me to explore this writing style rooted in reciprocity. Following TallBear, I offer my 100s as an analytical, poetic, and shareable practice to expand upon significant hashtags and slogans that merit continued attention.

Why Study for a Future that No Longer Exists?

> Adults desire to protect children (from adulthood) or prepare children (for adulthood). But the secret is out. The future will not look the same as the past. Adults, having failed to protect youth from climate change, still implore, go to school and you'll become productive members of society. Yet, maintaining this future relies on imaginary pasts that displace untidy or disordered histories. Configurations of the child, an emblem of innocence distinctly envisioned as white, continue to partition resources to maintain white futures—futures that are now at stake. A faulty premise, a myth exposed. Time to break with the façade.

Stop Shitting on my Future

> In August 2018, Greta Thunberg decided to stop going to school. Instead, she sat quietly on the cobblestones outside of Stockholm's parliament handing out leaflets that read, "stop shitting on my future." This slogan is honest and straightforward, hallmarks of Thunberg's pleas and her unapologetic way of confronting adults. Thunberg's commitment to the status quo is at the core of her persuasion. She'd rather be in school,

would rather a future of careers, comfort, and predictable social order. Her power lies in her ability to articulate that this future is what is under threat as the climate catastrophes barrel on.

Denial is not a policy

Climate denial is a deficit in shared practice. Policy lays out a course of action. As people became aware of the finitude of the planet's recourses, corporations and "elites" did all they could to maintain the status quo and preserve their power. Responsibility redirected to the consumer. Attention diverted away from the earth and its inhabitants. Distraction and delusion obstructive cornerstones of strategy. Radically veering us off course. To reroute, educators can center how to live in the same world, share the same culture, face up to the same stakes, and perceive a landscape that can be explored in concert.

If you don't act like adults, we will

Youth are drawing attention to their role *as* children. "Child" vulnerability lies in opposition to "adult" power. If adults are presumed reasonable and mature, children are reckless and emotional. But we'd lose so much if children acted like adults; we'd lose their risk-taking, creativity, emotional connectedness. Child strengths now radiate as they take up space and positions of public leadership. In taking political power, youth activists blur adult/child boundaries. By simultaneously reifying and dismantling what it means to be a child, youth activists lay new roots for emancipatory climate justice. Can this change what it means to be an adult?

This Can't Wait till I'm Big

Sianne Ngai asks, is "cute" a way to aestheticize powerlessness? I wondered this as I watched adorable toddlers holding up signs, clunky cardboard too big for them to carry. The cute object is most fully itself when weak and in need of protection, often politicized through propaganda regimes—the helpless starving child, the vulnerable polar bear cub, and the clumsy baby penguin. By holding these self-referential signs, youth are able to render cute as capable. Instead of being infantilized (drawing on conceptions of infants and baby animals as incapable beings), with this phrase they brandish their "cuteness" to demand action.

Our house is on fire

A simple metaphor energizing urgency. This is an issue for the here-an-now. Greta doesn't want hope, she wants panic. Can you feel the fear she feels every day? Record heat waves, forest fires, and protests over mines and pipelines garner national attention. There is no time to wait. The flammable materials that power homes, vehicles, and factories seal our fate. Governments still subsidize fossil fuels rather than determine plans for prevention. This is a betrayal. It is not only that our house is on fire, but we lack a fire department. If earth is home, let's put out the blaze.

#thereisnoplanetb

U.S. environmentalist yearnings are hitched to the frontier myth—an empty place to escape, develop, colonize. NASA sees space as the next phase of U.S. evolution: "the next step of growing up is going up." But, oh. Oops. There is no safety valve. The extraterrestrial frontier is predicated on falsities: The West was not empty (the genocide of indigenous populations was an essential component of westward expansion) and space is not empty (it is actually full of space garbage). Instead of inventing an out-of-this-world reality, youth activists opt for the messy trouble of forging alliances towards an earthbound future.

#TMTShutdown

Come down from space. Inhabit the Earth. Since July 2019 protesters have resisted the proposed construction of a Thirty Meter Telescope (TMT) atop Mauna Kea, the volcanic peak where kia'i Hawaiians practice daily rituals. Astronomers say a TMT will offer insight into the earliest days of the universe. A universe, seen from nowhere, stretches from our bodies to the most distant galaxies. But activists fear TMT will further desecrate the summit. I see a new and nuanced demand for scientific agendas that respect the conjoined human and non-human agents that constitute Mauna Kea. Partake in the creation of earthly knowledge.

Activism is Learning

New ways of relating to climate change are reshaping how and where learning takes place. Australian Prime Minister Scott Morrison beseeched, "less activism and more learning in schools." But too many people saw through his veiled attempt to undermine requisite transformation. Activism offers students a means to teach and to learn. Now, protesters are learning what counts as action, adult nostalgia for past progress in signs, slogans, marches meet the moment of hashtags and memes. An activated movement learns of its power, as the protesters demonstrate a shift in pedagogical authority from parents and teachers towards the body politic itself.

Allyship as/in Education

Like social media, school systems organize the lives of many. Schooling can reproduce injustices as it segregates young people, surveils them, and often dictates (and erases) histories and worldviews. In both classrooms and curricula, youth voices are too rarely privileged. Yet, schools can also house meaningful, empowering exchanges of care and knowledge. Towards this end, SSC provides society clear critiques of school's inadequacies. As youth climate activists

have taught us, it's time for a global reckoning that the future will not be the same as the past, and education will only remain relevant insomuch as it can attend to the environmental crises that disproportionately threaten young people, particularly those already marginalized due to economic, racial, and social inequities. Student strikers demand to be heard, sharing stories of newly flourishing youth/climate narratives. While students strike, forests burn, and pandemics sweep the globe, educators can either hang onto an antiquated system or aim for relevance best achieved through allyship.

A fundamental aspect of allyship is the reshaping of power dynamics. The 100s, as a pedagogical and analytical practice, can operate on multiple levels to begin to privilege youth voices, reshape teacher/student relations, and promote more in-depth engagement with youth activists' teachings on climate justice. Mirroring the decentralized nature of activism on social media, the 100s can subvert hierarchy by harnessing educators' positionality to center youth voices. On Instagram, a uniform structure and lack of gatekeeping encourages the proliferation of diverse content. Yet, the company consolidates control over how and where information can travel. Counter to Instagram, the 100s do not deny the uneven power dynamics in classroom settings but set the parameters to work *with* youth, enacting what call a "pedagogy of collegiality."[53] Rather than romanticizing youth leadership as something done in the absence of adult relations, this pedagogy of collegiality emphasizes youth voices without abandoning them to do the work entirely on their own.[54]

[53] Vivian Chávez and Elisabeth Soep, "Youth Radio and the Pedagogy of Collegiality," *Harvard Educational Review*, 75, no. 4 (2005).
[54] Barbara Ferman and Natalia Smirnov, "Shifting stereotypes and storylines: The personal and political impact of youth media," in *Contemporary Youth Activism: Advancing Social Justice in the United States*, ed Jerusha Conner and Sonia Rosen (Westport, Connecticut: Praeger Press/ABC-CLIO Books, 2015).

Further, by analyzing the primary texts of youth climate activists, educators can support cultural shifts that recognize climate change as entangled with issues of justice *and* reconceptualize children as vital leaders in efforts to address humanity's most pressing concerns. The confluence of smartphones and social media has led to new technologies that activists use to educate and organize around issues of police brutality, settler colonial violence, and global climate catastrophes. In response, educational structures must integrate the teachings of youth activists advocating for more nuanced, intersectional visions of justice. Inviting students to engage critically with SSC gives value to youth activists' contributions and allows for multiple interpretations. The climate crisis requires a reorientation, a commitment to join with those who are imagining and constructing worlds that deserve a future, worlds committed to diversity and taking care of the marginalized human and non-humankind. As Donna Haraway argues, rather than a distant goal, ongoing futures rely on us building thick, robust presents with each other, on working and playing with each other in ways that make sense *now*. Teachers no longer holding on to a pre-determined future for which they must prepare their students can instead create and facilitate structures for students to imagine and experience a more just and livable world. The 100s offered in this chapter, as activity and examination, are one small suggestion embedded in this broader call to re-think both education and climate change by taking seriously the words and worlds of youth.

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Conclusion

You have reached the beginning of the end of the end, or, again, is this only the beginning?

In this dissertation, I argue that how scholars, activists, and educators respond to the climate crisis can enable the opportunity to dismantle the figuration of "the child," which is fundamental to disrupting the categorical oppression of children and untangling the extractive and developmental logics fueling the crisis. In my first case, I examine how activists who abstain from childbirth rely on problematic narratives of reproductive futurism that preserve the sanctity of the bionormative family and uphold distinct forms of petro-futurity.[55] In my second case, I explore how youth activists both deploy and challenge societal myths projected on children. As prevailing discourses too often rely on idealizations of "the child" to advance the structures and politics of reproductive futurism, I content that further and ongoing focus on the intersection between children and the climate crisis can help us see past the logics that prop up late-carbon liberalism. Here, I revisit the chapters of my dissertation to refresh the connections between them and share what I've learned in the research and writing process. That said, before I reenter the chapters, I am going to explore the title to frame how my dissertation serves as a 'beginning,' even at its end. The title, *Children in Absentia: Reproductive Futurism in the Era of Climate Change*, served as a guide for me to consider Lee Edelman's concept of "reproductive futurism" alongside the role of "the child" in confronting the climate crisis. Thus, I begin with a recap of Edelman's theory to foreground some of the theoretical background of this dissertation \ to demonstrate how it guided this exploration.

[55] For an informative resource on petrocultures and petrofuturity see The Petrocultures Research Group https://www.petrocultures.com/about/. See also Jessalynn Keller (2021) "This is oil country:" mediated transnational girlhood, Greta Thunberg, and patriarchal petrocultures, *Feminist Media Studies*, 21:4, 682-686.

The Child as a Blinding Light[56]

Overarchingly, this study takes inspiration from Edelman's (2004) *No Future: Queer Theory and the Death Drive*. As I point out across the dissertation, Environmental Studies and Education are particularly invested in futurity and the preservation of the Child. Emerging from these spaces, this dissertation asks: *what does it look like to politicize "the Child" in climate activism?* Since Edelman's provocation paved the way for scholars to antagonize "the child," he is a useful theorist to think with as this dissertation confronts the jarring collisions between realities and fantasies built around reproductive futurism. Across these case studies, activists' identities, discourses, and political horizons are inscribed by their positions in the idealized reproductive order. Children and would-be-parents, aligned with the imperative of the Child, make claims *from* their presumed, almost messianic role; they can bring about the future, continuing the project of humanity. To conclude this project, I offer a reorientation inspired by this study. This reorientation ricochets off reproductive futurism to offer a revaluation of failure and impossibility, not as obstacles to overcome on the path towards progress, but something to live in and with.

In Edelman's provoking work of queer theory, he argues that the figure of the Child has been the primary symbol shaping contemporary U.S. politics, an embodiment of futurity representing the purpose of the social order. Edelman's conceptualization of the Child, not to be confused with any historical children, delineates the bounds of the political; the queer disturbs those bounds. Via the Child as the imaginary beneficiary of every political intervention, an

[56] In this section of the conclusion, I have listed the figuration of the child in uppercase as *Child* to maintain a distinction that honors the work of Edelman. As Edelman draws on Lacan, the lower vs uppercase distinction follows a distinction between references to the Imaginary order and the Symbolic/Real orders. In this schema "child" (lowercase) references experiences of an individual and a social idea. This "child" has a body, or at least references one. "Child" (uppercase) is a presence that haunts all of society, structing subject formation and relations between subjects.

unquestionable good, the terms of political debate have been narrowly defined by the ideological limits of reproductive futurism. Edelman is often critiqued for a lack of specificity regarding time and place. These critiques gave rise to a new body of literature on queer futures that center the experiences of People of Color, Indigenous people, and those who live outside the Global North's current sociopolitical sphere (e.g., Muñoz, 2009; Puar, 2007). Edelman set the stage for these powerful critiques by demonstrating the foundational role "the Child" plays in myriad relationships to self and society. *No Future* incited people to try the impossible: to contemplate contemporary society without "the Child." To borrow from Edelman, "we are no more able to conceive of a politics without a fantasy of the future than we are able to conceive of a future without the figure of the Child" (2004, p. 11). Responding to this, Edelman explores the potential of situating oneself on the "other side." When the Child shapes collective narratives and "collective narratives of meaning" (p. 12), what might it look like to refuse the Child that stands in for the normative fantasy of futurity that organizes communal relations?

Reproductive futurism ties heteronormative reproduction to the promise of self-realization. It temporalizes desire—a void or absence one hopes to fill by attaining a future fantasy around which identity often congeals. Heteronormative romance produces (or has the possibility of producing) offspring, and therefore a future. The figuration of the queer pierces this fantasy. For Edelman, this is drawn from longstanding associations between gay sex and the undoing of futurity wherein the queer stands in for the negation of the future. Simply put, if meaning is a future promise, achieved via the Child, then a drive for non-procreative anal sex is futureless and therefore meaningless. Queerness figures the senselessness of sexuality and, in so doing, threatens to expose the arbitrary rules of moral rectitude sustaining reproductive futurism. Within these figural relations, the queer undoes the meaning upon which social organization and

collective reality rest. For this study, we can gain from Edelman's provocation: what can it mean to destroy the Child? Akin to the ways that gay sex shatters egos and norms, in the face of climate change, almost everyone must undergo an unbearable unmaking of their identity that will be shocking and scary due to a compromised sense of futurity.

The Child—not yet agential, political, sexual—clings to whiteness, as whiteness clings to innocence. This racialized innocent figure is without sin; thus, children are believed to be unmarked and desireless and seen to subsume only the desires projected upon them. Yet, children's actual desires are rebellious and cannot be confined to the assumptions of predictability. While children are themselves capable of disturbing our norms, there are myriad institutions to keep children undisturbed, or safe from potential encounters with "otherness." Importantly, these institutions keep society safe from being disturbed by desiring children. Keeping children in check keeps the figure of the Child intact. In response to imagined threats of alien desire, we endorse efforts to Save the Child at the cost of actual children harmed in the process. Thus, to join Edelman is to be on the other side of the Child, which is to be on the side of children.

The social order of reproductive futurism seals the fate of humans and non-humans alike, preserving extractive, petro-dependent transactions. As such, in the political project of climate change, there is an urgent need to break with the Child as an emblem of futurity, to unbuild the settler-colonial heteropatriarchal regime that has indeed catalyzed the crisis. Thus, to conclude, I ask: *what can we make in the absence of "the child"?*

Seeing through Absence

Absence is an invitation to start *in the ruins* of the imagined loss of a predictable future. The figuration of "the child" is marked by absence, what it is not rather than what it is. "The

child" is predicated on concepts like innocence, inexperience, and ignorance, an absence or lack of knowledge. "The child" is imagined without race, gender identity, and sexual desire (that is, until they develop through a pre-scripted coming of age story). "The child" is seen as free from sin and, therefore, able to move into a future adulthood of property, legal kinship, and familial succession. Thus, revisiting Edelman is a starting point in the work of unmaking "the child" upon which the present is enacted, and the future is imagined. This unmaking could be generative, allowing actual children to inform their surroundings and inspire new subjectivities.

I began with Edelman because this work has become a focal point for many theorists invested in larger conversations around contemporary child figurations and their role in notions of the future. For instance, Julian Gill-Peterson's work illustrates how "the child" in neoliberal capital differs from the idealized modern concept of (white) childhood that took root in the Progressive Era (see Macleod, 1998 cited in Gill-Peterson, 2015). Gill-Peterson demarcates how "the child" changed in the aftermath of the 2008 financial crisis through examples that illuminate the pressures of entrepreneurship, particularly for Black and brown youth, to accrue futurity through the digital economy. For these children, the future requires investment in the present; the self a basic resource to be used in the absence of resources from society (2015). Here, "the child" is shown as a key player in the perpetuation of debt and expansion of wealth inequality. Gill-Peterson's writing operates alongside scholars like Heather Davis (2015) and Rebekah Seldon (2016) who counter and expand Edelman's proposition in relation to environmental catastrophe. Their work enabled me to think through the ways "the child" is simultaneously present and shifting in relation to the climate crisis in this dissertation.

As I embarked on my research, the activists discussed across my case studies showcased how absence could strategically threaten reproductive futurism. Birthstrikers expressed concerns

about children's health and safety in a world destabilized by petrol-dependent lifestyles. In the affluent West, these lifestyles turn child-rearing into a site of carbon-heavy consumption and extractive and unjust relations. Birthsrikers were withholding their uterine and parenting labor to take power, to demand safer working and living conditions for them and the children they might bear. In the School Strikes for Climate, youth activists emphasized that the future will be so drastically different from the present that school was no longer adequate preparation. Their protests shined a light on the absurdity of homework, grades, and college readiness in the face of climate-induced disaster. School strikers also refused to engage in a predetermined adult/child divide. They abstained from school to stop adults from continuing business as usual, and thereby disrupting the daily mechanisms of capitalism. It was their lack of presence in school that instigated disruptions to the norm. As Andrew Marantz (2020) has written on Gene Sharp's analysis of tactics like bureaucratic slow walking, boycotts, and strikes, "in the history of political change, the winning combination of tactics may look like an absence –or, to the untrained eye, like nothing at all."

In these cases, real and imagined absences brought attention to climate change as activists leveraged the under-questioned status of the institutions of the school and the family. By abstaining from their assumed roles in the school and the family, activists made the oft-overlooked work of learning and reproduction visible. Their absence was practical and conceptual, highlighting the way that capitalism relies on unpaid feminized, domestic labor to ensure the necessary work of childcare and reproduction. These activists asked people to try to imagine a world without children, a world where school and family—the lynchpins of capitalist society—unravel. Whether intending to or not, they raised the concern that climate change will destroy these institutions. By doing so, these activists challenged reproductive futurism and

brought to light the precarity and social contingency of these institutions using the specter of a forlorn future that is absent of children.

(Post)er Child

Revisiting the conceptual article I wrote for this dissertation, "Future Child: Pedagogy and the Post-Anthropocene," I notice that I use the language of "apocalypse" as a starting point for critique. By moving climate change away from the rhetoric of facts and figures, the language of apocalypse places climate change in the language of crisis. In the U.S., this association resonates as a common narrative due to Evangelical, conservative influences. As outlined by scholars like Matthew Sutton (2014) and Jessica Hurley (2020), influential specters from Billy Graham to Ayn Rand have preached a temporality of eschatology: an apocalypse that will bring about the Second Coming. In such preachings and narratives, there is a specific construction of whiteness, not only as a racial formation, but as an ideal, that plays out as a kind of threatened future that can only be preserved by casting out others who do not fit the ideal. When history, including that of the future, is depicted as having already been decided, it forecloses actions in the present to create a different future. Thus, as the climate crisis is framed as a threat to contemporary, unsustainable ways of life, for many seeped in mainstream American thought, it might seem easier to imagine the apocalypse than to articulate a way out of capitalist, petrol-dependent, settler colonial, and white supremacist logics.[57]

Jumping off from this language apocalypse, this article proposes a pedagogy for the post-Anthropocene. While apocalyptic language obfuscates the ways in which climate change is not a

[57] This comment resonates with the oft cited saying "it is easier to imagine the end of the world than the end of capitalism." According to Matthew Beaumont (2014), this was written by Fredric Jameson in *Seeds of Time* in 1994 but then revisited in "Future City" in 2003 to credit H. Bruce Franklin writing about J. G. Ballard. In "What Are We to Make of J. G. Ballard's Apocalypse?" Beaumont shares that "Franklin accuses Ballard of 'mistaking the end of capitalism for the end of the world'; and asks in conclusion, 'What could Ballard create if he were able to envision the end of capitalism as not the end, but the beginning, of a human world?'"

pre-destined, all-encompassing ending, utilizing *post*-apocalyptic language might change the narrative altogether. As Jessica Hurley poses in *Infrastructures of Apocalypse* (2020), what can the apocalypse do for people whose futures are already threatened or foreclosed? In this article, my co-author and I articulate how children fall into this category due to the way they are treated, and the expectations and norms tied to whiteness and hetero futurity that foreclose and threaten their futures. In response, we offer a pedagogy rooted in the present, in something beyond the production of the same, as an invitation to imagine other ways of looking to the past and the future that are *post* Anthropocene. This pedagogy aims to unsettle the constraints placed on children to fulfill, preserve, or save futures they have yet to name, imagine, and create. It is not a disavowal of the future, but of future-orientations that negate children as bearers of their own experience and agents of their own purpose.

The Anthropocene has been widely theorized as a time of significant human influence and human exceptionalism. Yet, "post*"* in this article is not referring to a time after humans, but a move away from the humanist logics that form the basis of the Anthropocene. This is a 'post' inspired by poststructuralism and posthumanism. A helpful reference for educational scholars might be Elizabeth St. Pierre's writing on post qualitative inquiry. St. Pierre describes a process by which she had deconstructed so many concepts and categories in traditional humanist qualitative methodology that she was "in the ruins" (St. Pierre, 1995). Instead of rebuilding from the same place, she allowed herself to re-orient and inquire differently. Likewise, thinking about early childhood education alongside a proposed pedagogy for the post-Anthropocene challenged me to inquire differently by starting from the work others had done to deconstruct the Anthropocene and begin in the ruins. For St. Pierre, the only *practice* in post qualitative research is studying poststructuralism (2019, p.5), which enables one to "think methodology" (2019, p.6).

For this study, the only practice to think about "the child" in relation to pedagogy is to think in *the ruins* of Anthropocene.

(No) Future for Babies

My first case study centers on two activist groups that directly address the topic of reproduction in the era of climate change. One group explicitly positioned the decision to not have children as a political response to climate change, and the other group created space for discussion and publicly shared their testimonies to make visible the impacts of climate change on reproductive decision-making. Discourses on climate change centered around children often fall prey to perpetuating and dictating beliefs about what a child is and can be in order to actualize adult fantasies about the future. As these cases of activism both rely on and subvert common beliefs about children and the climate crisis, they can help provide a more nuanced view of children. Furthermore, these groups called attention to the interwovenness of workplaces and life-places, and the importance of uterine labor to capitalist systems.

In this chapter, I use Donna Haraway's slogan *Make Kin Not Babies* (see Haraway, 2016) as an analytic to examine how activists confronting climate change propped up the image of the family as a counter tool. In particular, the historically and culturally specific idealized Euro-western bourgeois family – entrenched in white property relations and gendered expectations and norms. This family formation has long served as a major apparatus for seizing and using property to ensure generational (white) wealth accumulation. In this research, the activists' discourse about care and kin are entangled with the anthropocentric, colonialist, racist modes of operating inside the family. Thus, I argued that the structures this family formation reproduces were impediments to the activists calls to decarbonize ethically. While these activists sought to transform society, they upheld propertied relations fueling the climate crisis. Exploring the ways

these activists navigated such complexities highlighted the struggles of activists to remain legible as they swim in these predetermined vocabularies. Making this chapter showed me how tempting it is to lean on the politics of reproductive futurism to make sense of the world through the imagined ideal of the family.

While activists in this case were mired by populationist and family frameworks, they challenged the assumption that it is *always* better to bring children into the world, regardless of the situation. In contemporary Western empires founded in enlightenment era ideals, espousing goals of democracy, and imbued with Christian theology, it is common to view children as miracles, symbols of hope, and decisions beyond critique. These activists, on the other hand, showed what it looks like to claim agency over their reproduction and to think of it as deeply relational to other human and non-human beings. In this way, this case study shows the potential to contribute to shifting the meaning of kinfullness; to see kin not as a bloodline nor *precursor*, but as an *effect* of struggle and care (Benjamin, 2018, p. 64). Under racial heteropatriarchal capitalism globalized by the colonialist empires of the West, questioning the lifeways deemed "normal" and "safe" is essential. Deconstructing the social imperatives around normalcy and safety is a key step towards viewing humans as responsible to one another, and fully in relation. Thus, I found great respect for the activists grappling with their commitments to safety through normalcy, inciting a clash between their fantasy of the future and the reality of the now.

Schooling Adults

In my research, I sought cases of climate activism that focus on their politics on children, both real and imagined, but complicate reductive beliefs about what a child is and what a child can be. I aimed to challenge the categorical oppression of children based upon assumptions of childhood innocence, ignorance, and purity. Towards this end, engaging with actual children—

filled with knowledge, desire, and experience—provide a wonderful antidote to the assumptions that undergird "the child" and can offer inspiration to re-imagine adult-child relations. Thus, in my second case study, I focused on the transnational Youth Climate Movement, and in particular on Greta Thunberg and the School Strikes for Climate. In this case study, many activists seem eager to get back to school, to their imagined future stifled by the climate crisis. Yet, by striking from school and articulating the system's inability to respond to the intersectional needs of the crisis, these youth are calling for change.

Rebekah Sheldon has argued that climate change shifted how society views "the child" towards a figure of hope and futurity; yet my research on youth activists shows just how fluid and context specific this figuration can be. As youth activists take focus as political beings, the bounds of "child" become harder to find. In this case study, social media became a primary means to examine the discourse, symbols, and framing of the Youth Climate Movement (see Molder et. al., 2021). Instagram and other platforms helped to spread images with slogans like "If you don't act like adults, we will" and "This can't wait 'til I'm bigger." Activists Greta Thunberg and Xiuhtezcatl Martinez used social media as a megaphone to rewrite mainstream narratives around childhood and futurity. This follows Sheldon's thinking that, as "the child" shifts meaning, there is not some clearly delineated switch. Rather there is a "torsion between multiple modes, all of which continue to circulate together" (Sheldon, 2016, p. 5). In the Youth Climate Movement, there were many divergent and clashing ideas as activists became *literal symbols*. On social media and elsewhere their images were layered with meaning; they were both themselves as well as stand ins for "the child." Thus, with mainstream media paying attention to their strikes, activist's ability to perform and subvert their assumed roles in relation the "the child" became key to the spectacle and the politicization of the movement.

This case study helped me to re-think "the child" in relation to the demands of adulthood and the expectations that maintain certain types of seriousness, normalcy, safety, and security. It led me to ask, what types of encounters can engender new conceptions of "child" and "adult" that might achieve more communal, collective, playful, and imaginative futures? In a special issue of *Women's Studies Quarterly* called "Child," co-editors Sarah Chinn and Anna Mae Duane call for a shift in how we enact and envision both "adult" and "child." They ask, "to what extent does 'earning' adulthood equate to routines of postindustrial neoliberal life?" (Chinn & Duane, 2015, p. 24). Earning adulthood allows one to unlock the keys to property and access corresponding rights and privileges that sustain unjust relations. In this way, adulthood forecloses alternative futures while also serving as gatekeeper to exclude others, most obviously children. Thus, it is of utmost importance to disavow orienting towards 'saving the child.' Instead, I urge adults to work towards collectively taking responsibility for children, even if they are not "ours," not what we wanted or expected them to be, and even if we are unsure how to proceed.

The Impossible Task

"I" disappear in defining a world without "the child."

For Edelman, who utilizes Lacanian psychoanalysis, "the Child" is a central defining unit not only of adulthood, but of how subjectivities are structured and relate to one another. Edelman is not under the impression, nor am I, that "the Child" can be eliminated without complete ego and societal death. Thus, to write the world without "the child," I began this work in failure, working at the limits of the possible, vulnerable to the unbearability of my own asks. To stay at these limits, I encountered surprises as I interrogated my assumptions about age and agency, and the violent impacts of an expected trajectory that moves from an unknowing childhood to an

adulthood of knowing what comes next, and predictively planning for it. In Rachel Cusk's autofiction trilogy *Outline,* she recounts a visit with an old friend who confesses that their perception of the world has changed as they began to see things without asking whether they were expecting to see them. She calls it the "long lens of preconception" that kept her friend at a distance: one that "constituted a kind of safety but also created a space for illusion" (Cusk, 2014, p. 119). Across my dissertation, I seek to address this lens of preconception, challenging reproductive futurism by embracing a new understanding of climate change as something other than a threat to an already presumed future, dictated by beliefs about what is "normal," "natural," and "good." I share many traits with the activists in this study. Having led a privileged life propelled by carbon-intensive practices, I now must face the fact that the systems imagined to be stable will not hold, and that these guiding beliefs sit at the heart of such fantastical imaginings. Towards this end, I (re)turn to the idea of failure as a counter to the still-dominant narratives of progress and predictability.

Writing is a process of naming, describing, sharing, but it is also a mode of failure as the writer confronts the limits of language and communication. In this dissertation, I have joined scholars and activists as I attempt to name the futures I am working towards. Following Sara Jane Bailes (2010), "failure *works* to signal a breakdown of an aspiration or agreed demand," reorienting relations around both labor and futurity (p. 3). If success is about predictability, an imagined intended result, then a failed objective contests the "authority of a singular or 'correct' outcome" by establishing an aperture into the many indeterminate ways that one might *not* achieve that outcome (Bailes, 2010, p. 3). As such, failure might be a useful starting point on the journey to accommodate unforeseeable or unusual outcomes of a warming planet. If language at least partially structures individual and cultural imaginations, my aim in this writing has been to

use language as an opening: a medium that can shift narratives by asking for more stories, and questioning whose stories are being told and heard. In this generative activity, I sit with the failures that are inevitable in attempts to comprehend and categorize. Aligned with the collectivity and volatility of the climate crisis, this failure is (and will be) an integral component to navigating such troubling times.

When I was 17 and just beginning my trajectory in performance art, I encountered an activity called "Impossible Task" from the performance group Goat Island. "Impossible Task" asks participants to write an impossible task that someone else must interpret into a repeatable action. I was tasked to "reach the moon." In jumping up to reach the moon, I was challenged to attempt the impossible, requiring me to incorporate vulnerability, shared agency, and weakness as organizing properties. Following Bailes' (2010) analysis, this activity opened space to let go of what is "doable" as the only course of foreseeable action. Rather, it asked me to *imagine* the impossible and *make* at the limits of the possible. The impossible task can prompt us to play in failure, to investigate where a "breakdown might become a break*through*" (Bailes, 2010, p. 147). While I was confident I would fail to reach the moon, there was no way to predict what I might gain through this activity. Likewise, while I was confident I would fail to solve environmental crises and escape the figure of "the child," deconstructing these binds to a presumed futurity can give rise to more livable futures. Perhaps Goat Island's activity is a metaphor, or perhaps it is a practice for approaching the climate crisis: a way to connect the ground and the sky. As the current order fails more and more spectacularly, there will be countless openings, some violent and unjust and others preferable and worth trying to actualize.

> Describe the last time you had sex. Create an event of bliss/create an event of terror. Why were you in pain in such a beautiful place? Create a shivering homage. Invent an arrival. How do you say goodbye? –*The Lastmaker (Goat Island, 2007)*

It is time to say goodbye to "the child" and the stories that maintain its meaning and by doing so, we may "invent an arrival," even multiple arrivals, none of which we can predict. To arrive at such infinite other possibilities requires deconstructing the core concepts that narrow what the future can be, and for whom. This deconstruction can shake moral grounds and expose other ways of thinking, feeling, and being other than adult/child. Shifting the power dynamics that constitute adult/child relations can unravel this hierarchical binary. As such, I opened this dissertation quoting the finale of Sondheim's musical *Into the Woods* (1989) in order to establish my commitment to actual children.

The song "Listen to Children" tells adults to take responsibility for their positions of power, to take seriously their influence as children listen, learn, and look to them for guidance. On the difficult path of deciding what is 'right' and 'good,' these lyrics encourage solidarity and, in lieu of answers, offer the refrain "no one is alone." In a stand against death-delivering fairy tales, where witches are not evil and mothers make mistakes, this refrain remedies unavoidable alienation, disenchantment, and loss. It works alongside ambivalence as a grounding force to honor "One another's terrible mistakes" (Sondheim & Lapine, 1989). *Into the Woods* is useful here because it reframes mistakes and failures as part of the story—not "good" nor "bad" but an outgrowth of contradictory desires and moral gray areas, generative reminders that we are not always capable or in control. This dissertation contemplates a paradigmatic shift from a 'self' that can direct the future to a porous collective inclusive of technology, physiology, infrastructure, bacteria, nation-states, and neighbors. As I live into the complexities these

relationalities produce, I propose a shift in focus that is no longer centered on what to hold onto, but what to reach for.

"Just remember / Someone is on your side" – Sondheim, 1989

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Methods Appendix

An Artistic Approach to Qualitative Research

How can recognizing response-able making reckon with the contingency of research?

Working with Dr. Erica Halverson, a foremost thinker on making in education (see https://www.ericahalverson.com), I had the chance to reflect on the process of making in and beyond educational contexts. In studying qualitative research, I came to see knowledge creation as a process of making. Just like making a performance, a painting, or a bookshelf, a researcher creates *with* the tools and techniques they have or know. What researchers have learned (e.g., literature, software, languages) matters greatly when considering what methods they apply. Thus, as I complete my doctoral degree, it seemed fitting to return to this concept to articulate my approach to qualitative methods. From the start to finish of this dissertation, I have been engaged in *making*, a process I conceptualize here and elsewhere (see Lakind, 2017) as predicated on social and material relationships, (re)articulated as the reciprocal relationship between maker, material, tools, skill, and intention. Making opens the opportunity for a conversation to develop between a person and an array of tools, materials, and skills. This appendix details how I "made" this research, the ideas and activities that marked and catalyzed my trajectory.

While the methods I've used are varied, they are all part of a practice I will call "response-able making." Building on my understanding of making, being response-able (rather than responsible) as a researcher is rooted in the ability to respond to the entanglements of living in a time of ecological uncertainty—taking direct inspiration from Haraway's (2016) concept of *response-ability,* which is referenced throughout this dissertation, and, in particular, in the first case study where I apply Haraway analytically. When applied to qualitative research, it can inspire a vision of methodology not as lists of rules and predetermined categories but as modes

of inquiry. Thus, my approach stands in contrast to views of the researcher as in control of a fixed present and future imaginary rationally and predictably following an exact protocol. Instead, I aimed to generate open-ended research plans to provide stability and support over rigidity and enclosure.

In planning this dissertation, the flexibility of my design enabled my project to take form mediated by the questions, objects, and conditions of this study. Response-ability demands a recognition that researchers and research change through and alongside these factors. Writing this during the onset of the COVID-19 pandemic further highlighted to me that being responsive not only means thoughtful engagement with other beings and materials but with my (the researcher's) physical and psychological well-being. Making research in a time of unanticipated discontinuities demands responding to carbon emissions, closed borders, airborne viruses, and the increasing pressures of caregiving, illness, and activism that accompany what Anna Tsing (2017) so eloquently refers to as "the art of living and dying on a damaged planet." Research studies take time and must be balanced with the multiple temporalities that co-exist when living/dying while aiming to make responsively along the way.

In a recent reflection on what aspects of my conservatory training in contemporary performance have translated into my current approach to research (Lakind, 2020), I articulated my continued commitment to responsive processes of making. Rather than beginning with a predefined domain, my work follows lines of interest that create space for the process and product to inform one another reciprocally and iteratively. I have learned to trust that, if supported, these lines will expand in multiple directions and lead to the creation of meaningful and complex work. A slogan that might be apposite has already been popularized by chanting

fans of the National Basketball Association's Philadelphia 76ers in response to the unconventional vision of the former general manager: *trust the process*.

To embark on this process, Bartlett & Vavrus' (2017) Comparative Case Study approach provided a jumping-off point—a bag of tools, not a series of required parts or "a recipe or a set of rules" (p. 7). This process-oriented methodology of emergent research design, as Bartlett & Vavrus (2017) remind, allow "the study to unfold, depending on where the data lead" (p. 116). This theory does not imply the researcher is passive but invites the researcher to *follow the inquiry*. Cases are not found but *made* [emphasis added]" (Bartlett & Vavrus, 2017, p. 116). Trusting the process of making qualitative research means following lines of interest shaped by inquiry. In this study I did so using literary analysis and grounded theory, making maps and writing poems. By grounding my approach to research in an unconditional permission to "make responsively," I could inquire from the myriad complexities in which I am non-optionally enmeshed.

Performance art creates an event or experience that cannot be replicated nor reproduced, even by the same performer; it is contingent on ever-changing factors. My training in performance art continues to inform my making practices, inclusive of an artisanal approach to research. Following Tim Ingold's (2000) distinction between techniques and technology, technology can displace the role of the person, but techniques require skilled artisans. My approach to qualitative research can be viewed as a technical, not technological, process. It is an artist's (or researcher's) action, care, and dexterity that is responsible for responding to the presence of risk, and this exchange allows a give and take to unfold and shape the form of what's being created (Ingold, 2013). There are inherent and unavoidable risks in not knowing where an inquiry might take you, or what it might do to you. Response-ably making uses the skills of the

craft alongside "intellectual dexterity and methodological flexibility" (Bartlett & Vavrus, 2017, p.124) to manage the instability and uncertainty of researching. As I continue to make across disciplines, an artisanal approach opens space to create in ways that are response-able to the surrounding material and social complexities.

School Strikes for Climate

How to delineate the bounds of an unbounded movement?

A central challenge in studying a social movement is to determine what counts as data. Especially in today's media ecology as there are many virtual and disparate forms that movements take. Much of the research in education on youth-centered activism focuses on organizations rather than movements, meaning that the study has more clearly delineated bounds (e.g., Akiva, 2017; Braxton, Buford, Marasigan, 2013). There are important conversations about the relationships that adults have with youth while organizing social movements (Youth Speak Out Coalition & Zimmerman, 2007), how to best prepare youth for social movements (Grant, 2018; Lowenstein, et. al., 2017; Martusewicz, et. al., 2015), and about the affordances and constraints of social media towards civic and activist ends (Dohrn & Ayers, 2016; James & Cotnam-Kappel, 2019).

As a way into studying the vast School Strikes for Climate movement, the social media platform Instagram enabled me to engage with prominent youth activists in this global network and to see an array of overlapping perspectives. The decentralized nature of this approach meant that points of data on a particular topic could sometimes contradict or diverge from one another. Rather than a singular media outlet with more uniform ideological and rhetorical strategies, social media platforms provide overarching structures that allows many authors to voice divergent discourses and perspectives. Platforms depict leaders, main events, and purposes

differently, and this information might shift depending on where you are in terms of geographic location or where you fall within a user algorithm. Due to this variance, this study did not aim to gather a representative sample from which one could make consistent claims across Instagram. Rather, I am interested in looking more closely at how youth activists are countering and remixing dominant narratives about environmentalism.

To examine the climate-themed school strikes, enmeshed within a global movement for climate justice, I took inspiration from Lesley Bartlett and Frances Vavrus's notion of the "unbounded" case study as part of their Comparative Case Studies (CCS) approach. In CCS, space is not determined by essentializing features of a particular place. Rather, CCS is premised on networks of social relations and emphasizes context to avoid static notions of time, space, and culture; how people "make sense" of their world (Garfinkel, 1986), their practices and performances of making meaning (Bartlett & Vavrus, 2017; Anderson-Levitt, 2012). The unbounded approach enabled me to study multiple aspects of the social movement, moving beyond predetermined delineated boundaries. Instead of an *a priori* delineation, as is common in a more traditional "bounded" case study approach (e.g., theorists such as Yin, 2002; Stake, 1995), this method creates an inverse by "unbounding." This shift promotes "iterative attention to the contours of the research design" through a process by which researchers can explore how perceived boundaries come to be meaningful (Bartlett & Vavrus, 2017, p.7). Thus, by following relevant actors and networks, institutions and technologies, these case studies supported me in identifying boundaries, and how those boundaries worked towards specific purposes.

Background

Studying the School Strikes for Climate required me to engage with current political landscapes, and to explore how my interpretations arise from my own relationships with previous political movements. To engage with the current movement, over 18 months, in addition to

following activists on social media, I attended strikes, panels, meetings, and public events, and I followed media representations through social media, news, radio, speeches, and political blogs. Furthermore, I reflected on my relationships with politics. Over the last fifteen years, I have been involved in environmentalist and climate justice movements in the U.S. This has taken both grassroots and organizational forms. For instance, I served on a regional board of the Sierra Club and participated in multi-day protests such as Occupy Wall Street and efforts to block the Keystone XL pipeline. This past work has provided me with an "insider-outsider" status, which granted me access and insight relevant to this research. Rather than assuming *inside* or *outside* is binary, this status follows various strategies for researching "at the hyphen of insider-outsider" (Kanuha, 2000, p.443), viewing this hyphen not as a bridge or linear path from one to the other, but "as a dwelling place" (Dwyer & Buckle, 2009, p.60). This past work, and partial insider status, provided me with familiarity with tropes and symbols readily deployed, connections to networks of activists, an appreciation for how hard activists work to get media attention, and previous engagement with the use of social media towards mobilization and communication. Moreover, in addition to in-person engagement, print media, broadcast news, online publications, and radio have shown me the national and international dimensions of the Environmental movement, as well as the perspectives of activists and pundits across the political spectrum. In particular, social media provided me with direct access to the political work carried out and represented by youth-led organizations and youth activists.

During this case study process, it became increasingly clear that Instagram was the social network of choice for many activists in the youth climate movement. Instagram is a photo and video-sharing social networking service owned by Facebook, Inc. User interaction on the app is encouraged by algorithm. Instagram curates a newsfeed of posts. As a social network, there is

reciprocity built into the design so that users who have interacted with you will see your posts on the feeds. Instagram gives users the option of making their profile public or seen only by approved followers. There is also an "Explore" page that allows users to interact with trending hashtags, curated content, and a wider group of users. Instagram, according to a new Pew report, is especially popular among users that are 18-24 years of age (Perrin & Anderson, 2019). I joined Instagram as part of this work to follow the Youth Climate Movement and to connect with youth activists.

Instagram eventually became a key site of analysis for this case study as my research process confirmed its centrality for information sharing among youth climate activists. In September 2019, in an interview on a local radio station, leaders from the Wisconsin youth organization Youth Climate Action Team (YCAT) spoke about social media as their "most powerful tool," and how, thanks to their smartphones, "their generation has information on our fingertips." At a panel in October 2019, YCAT leaders claimed that Instagram has been their sole organizing platform saying, "Just a few clicks on social media can change hearts and minds." YCAT leaders spoke to me about the way Instagram connected individuals across the planet, and how the effects of climate change could now be witnessed by those who are geographically distant. Their view of Instagram was often romantic, as one member of the youth group said, "social media has been such a blessing." The consensus among YCAT leaders was that Instagram provided independence from large corporate media dictating the narratives and stories surrounding climate change. In this defense and praise of social media, they challenged deficit perspectives that youth are wasting their time on social media, saying, for example: "As young people throughout the day are scrolling and being told by teachers and adults to stop being on your phone, they are being exposed to this climate crisis and they are being exposed to how

people are living throughout the world" (Salgado, 20202). Since Instagram was a key site for youth to learn and communicate about their movement, I wanted to better understand what was being said to explore the prominent narratives and ideologies representing the movement. I analyzed 600 Instagram posts, weaving together information from the wider case study to provide context. I analyzed Instagram posts made between August 20, 2018-December 1, 2020 chosen using a three-step process. This process helped me determine which accounts and hashtags to follow, engage with the data in a more immersive way, and eventually select fewer posts for closer analysis.

Research Process

Step One: Internet and Web Searches

To begin, I used Site-ation Pearl Growing (2005), a method from the field of Library and Information Studies. Using this method, I searched for articles about the School Strikes for Climate, youth activist organizations, and media about prominent youth activists. When one website provides a link to another website it is called a "site-ation." Hence, in this method, rather than returning to general search engines for information, a more rhizomatic approach for searching from one website to the next enables the researcher to find relevant websites. Much like following citations at the bottom of an academic article, websites provide suggestions to links that the researcher might otherwise not have found. This method supports the researcher in discovering actors and organizations through their networks. For example, one website I found was called "Five Groups Fighting Climate Change" and it provided links to several other websites. These websites included the organizational pages for the five featured groups, a few similar groups, and some articles online about the position of these groups within the climate movement. This method also favors actors and organizations that are more frequently referenced online, which meant that numerous trajectories led to the same information again and again. For

instance, Zero Hour, a national youth climate organization that has received a lot of national press was referenced and linked to by several other sites. I conducted this search on my laptop as well as on library computers to account for the fact that different computers would show different results based on search algorithms and browser preferences. From these searches, I generated a spreadsheet of relevant organizations and individuals and then categorized each based on size and scale (e.g., number of organizational members and geographic scope), as well as the frequency of encounters during my searches.

Step Two: Curated Instagram Account

To follow only relevant hashtags (#topic) and user tags (@username) discovered in my initial online search, I created an Instagram account. Instagram carefully tailors what you see based on your network (who you follow and who follows you). Thus, I created an account with which I followed only youth climate activists. I began following Instagram accounts related to the spreadsheet generated in step one (e.g., Zero Hour and Greta Thunberg, who had each been getting heavy media attention, were at the top of the spreadsheet). From this initial point, I followed more accounts from youth climate activists as I encountered them, either because they were tagged in photos, were commenting on posts, or were recommended by the Instagram algorithm as accounts to follow.

As many of my interactions were only online, I acknowledge the lack of empirical evidence about whether accounts claiming to be youth activists were actually held by youth activists. In turn, I took every opportunity available to verify accounts in simple ways online and in-person. Online, I cross-checked account names with corresponding internet presence—for instance, I checked whether a youth activist I followed was also featured in various organizational pages, blog posts, videos, etc. When possible, I asked people in my personal

network if they knew certain account holders “in real life.” While identity verification is a known constraint online, during in-person at meetings and strikes within my limited geography (i.e., the Midwestern region of the United States), I was able to confirm that some of the accounts claiming to be youth activists were actually youth activists. That said, if accounts were created and maintained by people with alternative identities and/or agendas, they still contribute to the cannon of Instagram posts that claim to be coming from youth activists. In other words, real youth activists or not, the effect and role they have representing youth activists on social media is real. Therefore, I determined that all frequently shared posts inform discourse in the movement. I aimed to curate an Instagram account that would allow me access to representations of the youth climate movement, experiencing what an Instagram user experiences of this canon of climate youth activist posts.

Checking this Instagram account daily for several months allowed me to get an overall sense of the content and experience of the movement on social media. It also kept me informed about the information shared through this platform, which I found particularly useful as I engaged in person and through other media sources with the movement. I also used Instagram’s bookmark feature to create a folder of notable posts. After each session on Instagram, I wrote analytical memos to reflect on how the data related to my research questions (Emerson, et. al., 2011). This practice helped me to articulate what I was thinking about and seeing during the 18 months that I followed the movement in-person and online. As I conducted steps one and two, I knew Instagram/Facebook algorithms would impact the data. Although I did not further investigate how algorithms shifted what I saw, adding step three enabled me to gather information without being as concerned about algorithmic influences.

Step Three: Sampling

In December 2020, I collected a random sample of posts. I ran a script to collect this sample using a process called “scraping” through a program named Instaloader. This program scraped 100 posts from each of the three hashtags and three usernames below. I exported the images and metadata to my computer where I could copy or move the posts to organize them and keep the analytical memos and notes connected with each post. I chose local, national, and international accounts with the highest proportional number of followers as well as highly used hashtags. Greta Thunberg has over 10 million followers, but I did not expect other accounts to match that. For example, I chose an account with far fewer followers run by influential youth activists where I live (Wisconsin, USA). Through my in-person participation in the movement, I knew the activists and understood their local significance, even though their Instagram following was not as large as Greta Thunberg or Zero Hour.

Chosen Hashtags and Accounts

Search Term	Number of Followers
#schoolstrike4climate	99K
#Fridaysforfuture	453K
#thereisnoplanetb	228K
@gretathunberg	10M
@thisiszerohour	57.6K
@ycatw	2,174

Overarching Analysis

As a process of examination and analysis, I conducted several rounds of coding. Coding often refers to the process of reviewing a body of data to find recurrence and patterns. Following Jonny Saldaña, “coding is not a precise science; it’s primarily an interpretive act” (2013, p.4). The practice and process of this act can be fruitful. While categorization and naming can reduce complexity, assembling data into superordinate concepts and classifications, coding can also

afford nuance and complexity. As McLure asserts, coding in educational research can position the researcher at "arm's length from 'her' data, encouraging illusions of interpretive dominion over an enclosed field" (McLure, 2013, p.167). The analyst can take a view from above through coding. This distance corresponds with a presumed divide between humans and the inanimate objects that comprise the data. However, instead of being taken 'away' from data, from detail and nuance, coding can become a process of working *with* materials. Viewing coding in this way avoids what Stewart (1996, as cited in McLure, 2013) describes as a method of *forgetting* – forgetting cultural specificity and materiality through a Western mode of analysis that assumes a stable center from which one can imagine themselves above or outside "objects." In contrast, Stewart, an anthropologist writing on the "other" America in the coal camps of West Virginia, looks for the forgotten and excluded subtexts to the American metanarratives of progress. For Stewart, rather than seeing the data as a "bounded symbolic whole with readable meanings and discoverable causes and explanations" (1996, p.69), there is a practice of *unforgetting* by attending to the "anecdotal, the accidental, the contingent, and the fragmentary" (1996, p.11).

Towards this end, I searched for text in the data that was easy to forget. The process of coding provided an avenue for repetitive and differentiated engagement with the texts, which helped highlight discourses that have become normalized to the point of naturalization. By highlighting different phrases and ideas, I could defamiliarize myself and, therefore, notice what might have otherwise been overlooked, as well as pull in more context, histories, and relevant connections. This iterative process enabled me to arrange, interpret, and spend time immersed in the minutiae of the data, familiarizing myself with the details. While the ultimate goal was to move towards more abstract concepts, by engaging in this process, I spent more time with the data. This deeper engagement allowed me to develop insight and nuance regarding the data. I

first used descriptive codes to notice what I might have otherwise overlooked, such as the use of a celebrity or scientific data in the calls to action. Then, I formed broad inductive themes that spoke to the concepts invoked by the various posts.

Examples of Descriptive & Themed Codes

Descriptive Codes	Themed Codes
Disaster, Scientific Data, Anecdotes/ Stories, Shout outs, Protests/ Strikes, Civics, Signs/ Slogans, Recruitment/ Organizing, Celebrity, Charismatic Megafauna, Green Consumerism, Advertisement, Meme	Biopolitics, Individual/Collective, Futurity, Nature/ Technology, Universality/ Difference, The Great Chain of Being, Global/ Local, Vulnerability/Power, Fear/ Scarcity, Adult/ Child, Responsibility, Justice, Humor

Following Saldaña, I looked at visual data holistically (2015, p. 51). Where I had previously used short words or phrases in the coding process, for chosen images I wrote interpretive memos. These memos provided the basis for me to generate language to accompany the image. Strategic questions guided my interpretation, such as:

- What are backgrounded and foregrounded in this image?
- What known environmental symbols can be seen in this image?
- What are implicitly and explicitly normalized in this image?
- What is this image alluding to, referencing, or saying within the historical context?

Throughout this process, I returned to the methodology of the unbounded case study, reminding myself to pay attention to what Anna Tsing calls ‘global connections’ (2005), the specific materials and social contexts in which seemingly global and universal systems, such as capitalism and colonialism, operate.

Interpretive Memo Examples:

In this image, the cowboy stands next to the astronaut known for his catchphrase "to infinity and beyond" which here is replaced with a vision of the continuation of greenwashing everywhere. A critique of consumer capitalism as characters from the Toy Story film franchise reference U.S. identity, and the commitment to the frontier symbolized in the figures cowboy and astronaut. Under the dominance of greenwashing, it is hard to think of action on climate change outside of the presumed roles of consumer and producer. In some ways, this post also connects to critiques in the movement of what Sturgeon (2008) calls the extraterrestrial global frontier myth. The astronaut in Toy Story links to the role space plays in U.S. culture where environmentalist yearnings are hitched to the frontier myth. NASA sees space colonization as the next phase of U.S. evolution while competing entrepreneurs with relatively little government oversight are seen as leaders and social innovators. #ThereisnoplanetB

This meme is referencing Boomers (the mom) lack of awareness of the environmental crisis, which leaves the child with either cheap imitation or a deeply unsatisfactory replica or substitution of the original. The krill here are no longer as plentiful and the substitute is plastic in the ocean, taking the place of the krill. This posts references profits and global economic choices whereby the cheapest option for the most profit is chosen regardless of morality. As such, this may even skew consumer perceptions of the environmental destruction caused producing these goods, as the meme implies. This post is one of many featuring support for ocean animals, demonstrating an appreciation of the interconnectedness between the human and

non-human world. In a subsequent post, the user writes: "Atlantic Salmon at risk in Iceland's rivers? Just one more reason to say no to dams!" To this activist, it matters that these dams are harming the Atlantic Salmon; they see their lives and their futures are intertwined. Animals here are not beings to be dominated or resources to be eaten, nor are they unknown others waiting to be figured out (and sometimes eaten). Instead, animals are part of a shared world.

Literary Theory: Close Reads for Interpretive Memos

Saldaña (2013) compares analytic memos to journal entries or blogs. While coding and analytical writing are often done in tandem, the purpose of these memos is not merely to summarize but to reflect and expound on the data. To go deeper into the texts viewed and created during this process, I turned to the field of literary studies to conduct closer readings of specific posts. Literary theorist Caroline Levine's (2017) *Forms: Whole, Rhythm, Hierarchy, Network* helped me think through the socio-cultural structures embedded in a post. Posts that seemed simple on the surface were often filled with complicated references that, once dissected, reshaped how I understood the messaging of the post. Furthermore, a focus on particularities, and how those connect to broader patterns, shapes, ordering principles, enabled me to develop more transferable insights. I aimed to explore how identifying and exploring forms could help me read the ideologies present in the texts. I encountered the image below in a post on Oct. 17, 2020, via #schoolstrike4climate, #fridaysforfuture, and repeatedly on my "Explore" page and in my newsfeed. The close reading of this image of Greta Thunberg at Standing Rock was developed further into an essay for this dissertation.

Standing for Us All by Shane Balkowitsch

Exploring Local v. Global via Latour's *Down to Earth: Politics in the New Climatic Regime*

Returning to the axes of the CCS approach, I began to consider how this coding had provided me space to explore the horizontal axis, the ways these data were socially produced (Massey, 2005), and 'complexly connected' (Tsing, 2005). Further, the interpretive memos and the use of *forms* pushed me to employ a multi-scalar approach, questioning what these posts might indicate about technology, histories of the environmental movement, and climate activism. Overall, the three phases of coding (descriptive codes, themed codes, and holistic memos for visual images) helped me select a generative analytical framework to explore this case. After several iterative rounds of generating codes, including interpretive memos, I narrowed the codes to the overarching tensions that seemed to encompass the majority of the posts: Local vs. Global.

For an overarching analysis of all posts, I turned to the framework of Local and Global laid out in Bruno Latour's (2018) *Down to Earth: Politics in the New Climatic Regime*. I divided my analysis into three corresponding sections of *Moral*, *Scientific*, and *Economic*. This enabled me to see how the arguments fit with these categories common to framing in the environmental movement. As someone involved in this movement, I relied on my knowledge of dominant frames for communicating about the environmental crisis; further, I incorporated related works

such as O'Neill et al.'s (2015) 'frames' to categorize how the media portrayed climate change. Looking at the Fifth International Panel on Climate Change report (IPCC), O'Neill et. al. identify frames such as scientific, political, economic, and moral. This research informed my overall dissertation, in particular the chapter on Reading the Youth Climate Movement, as well as plans for future writing based on Latour's framework. As I conducted my analysis, the frames of local and global became increasingly helpful as tools for understanding the corpus of data. Selecting Latour's theory *after* the data analysis meant that the theory is responsive to and congruent with the data. As Maggie MacLure (2013) writes, through the process of coding things can "grow, or glow, into greater significance than others, and become the preoccupations around which thought and writing cluster" (p. 175).

"Theory" comes from the Greek word for "looking at," referring to the notion that one might extrapolate ideas about the world from looking at it. While I am not generalizing about *all* youth activist Instagram posts, I used these methods to create findings that can transfer theoretically to other sites and spaces, shining a light on the multifaceted messages on Instagram and the nuanced ways environmental narratives play out in these Instagram posts—reclaimed, deployed, and reshaped in contemporary climate activism.

Right: Sept. 20, 2019, Australia, university students Omayma Ali and Halima Weli on strike. ABC News: Jedda Costa; Left: Nov. 29, 2019, Australia, thousands protest over bushfires. Steven Saphore/EPA

The 100s

What disciplinary promiscuity is offered by expanding my fieldwork by expanding the "field"?

Following CCS, the case studies in this research embrace a conception of "field" as a symbolic arena in which agents are relatively positioned based on socially constructed and fluid rules (Bourdieu & Wacquant, 1992). The fieldwork is thus carried out in what Nadai & Maeder (2005) describe as "fuzzy fields." These fields are formed by a set of common activities, interests, and networks of communication. This expanded notion of "the field" brought me to the analytical method called "The 100s." As outlined in my dissertation chapter titled "Reading the Youth Climate Movement," this practice comprises a writing activity predicated on the formal constraint that each piece is 100 words.

One approach will not suffice in an expanded field. Thus, there is a need to "compatibly combine" (Saldaña, 2013) qualitative approaches. Extending examination of social media's significant role in my research, expediated textual forms appeared to be a primary modality of how youth climate activists communicated to the public. Writing within constraints is required per the design of most social media platforms that have a text limit for posts. Beyond design, social media thrives on self-branding and advertising through short pithy statements and phrasing that optimizes search engines and encourages shares. These forms appeal to a certain type of learner, as well as the designs and demands of the attention economy. Moreover, key figures in my dissertation, including Greta Thunberg and Donna Haraway, communicated often through poetic mottos and aphorisms easily repeated. I decided to give these short texts and slogans more consideration by responding to them through the 100s.

The field for this part of the study was bounded only by my relationality and lines of interest. I did not limit myself in terms of where and how I encountered these slogans. I included hashtags such as #landback and #undocumentedandunafraid, phrases I encountered from book titles (e.g., Latour's "Down to Earth" and Haraway's "Staying with the Trouble"), and text on

protest signs or graffiti. At a protest I attended, one small child held up a poster that read “don’t you fuckers watch Sesame Street?” and during my research, I became interested in a slogan from the posts tagged with #climategames around the 2015 Paris Agreement, “we are nature defending itself.”

As opposed to the analytical memos that I wrote in response to the information I had already categorized as data, the poetic and responsive form of the 100s provoked me to explore findings in a more open-ended and ongoing process. This process helped draw my attention to phrases and slogans I might have otherwise glanced over. Creating space to write these 100s meant I analyzed information without first determining if it was relevant. For instance, when researching the BirthStrikers, I noticed a slogan from a blog post about infertility; the post mentioned the folklore Llorona. This story was prominent in my childhood. Year-after-year, I heard the tale of Llorona, also called “the weeping women,” about a beautiful woman who married a man for his wealth and good looks. He mistreated her and drove her to a breaking point when she drowned her children. I was told that Llorona, now a ghost looking for her children, would capture children if she saw them out at night. The associated slogan is “she wants your children.” In June 2020, I wrote the following 100 as a response.

She Wants Your Children
Folklore filled my childhood. Like La Llorona, both living and dead. She drowned her children so spends eternity terrorizing the children of others. I once told this story to my students and three of them burst into tears. ¡Ay, mis hijos! The specter of the childless woman is the specter of death amongst the population. Social reproduction begets social death. So certain women are encouraged to wait for a ‘miracle’—a child that can erase sexuality, sinful to innocent. But when the process goes wrong and there is no child, nothing is redeemed. The specter remains: blood, mucous, infections, Death.

In addition to writing a series of 100s, I shared this practice with groups of colleagues and friends. I co-edited a group of 100s into a collective publication titled “Inquisitive Survival:

Burring Questions for the Necro-Scene" that has since been published in the *Journal of Visual Culture & Harun Farocki Institut (*online) and print in the *Journal of Visual Culture.*

Burning Question

I follow Birthstrike activists—withholding their labor, childless. Always-already-mothers were it not for environmental catastrophe. The specter of the childless woman is the specter of death amongst the population. Genocide by fossil fuel. I am trying to make sense of their unfertilized eggs, to decipher an activist "fungus" of sorts, growing in their wombs to bear a fruit of another purpose. Solastalgia leading them to "mother the earth." Woman-as-womb. SavetheChildren. Do-it-Yourself. Build-a-Bear. Make-a-Family of non-biogenic-kin whose precious presence might provide needed love and necessary re-kin-dling. If I commit to an ethical now, who will care for me if I grow old?

Children In Absentia

I don't want to waive the right to face my accusers. I desire to be in your presence. I want to say that the norms imposed, the chemicals released, the expectations are, for too many, unlivable. The defendant has left the trail. The children have left the schoolhouse. The Child has left the future. An empty vessel awash with meaning. It was next, soon, upcoming. Is in absentia a want so great it produces a gaping hole around which you are nothing? Or perhaps a power grab, to reclaim what's long been stolen – a world without the blamed and blameless.

Conceivable Future and BirthStrike

What techniques enhance the process of theorizing about unanswerable questions?

Background

In 2015, I started learning about Conceivable Future, a group that brings people together to discuss how climate change is impacting their reproductive decisions. In October of 2016, after six months of following their work, I attended a panel discussion at a university gallery in Chicago with one of the founders, Josephine Feroelli. Meghan Kallman, the other founder, lives in Rhode Island. This discussion was part of a solo show by the artist Christa Donner called *Born into Trouble: Reproductive Sovereignty and Community in the Climate Crisis*. This panel also featured Olga Bautista of the Coalition to Ban Petcoke and Kelly Nichols of Moms Clean Air Force. At this time, Conceivable Future was referred to as a "climate-crisis reproductive sovereignty group," although over the years the language would shift to name it simply as

"reproductive justice." The panel focused on the intersections of "climate change and women's rights."

After the panel, I introduced myself to Christa Donner, and we stayed connected over the next year. I saw her in Chicago, and she came to Madison as a featured artist in an art series I directed. Josephine and I spoke on the phone, and at another point, we went to lunch, where I learned more about her and her work. She also sent me a "how-to" kit to put on my own Conceivable Future event, which I did with a few friends and community members in the summer of 2016. Even though a core component of their work is to ask people to provide a testimonial, I did not ask any participant to do a filmed or written testimonial. During this time, I took notes and worked on unraveling my thoughts on this organization, and on the underlying questions of reproduction in the era of climate change. In 2019, after following this group for four years, I proposed this dissertation. I decided to focus on both Conceivable Future and BirthStrike, a newer group often featured on the same podcasts or articles.

Research Process

This case study draws on historical materials, ethnographic data collection methods such as field notes and observations, and discursive visual and textual data using a grounded theory approach. Following Adele Clarke's (2005) work in *Grounded Theory after the Postmodern Turn*, this methodology responds to problematics outlined by Denzin & Lincoln (1994, cited in Clarke, 2005) and others such as, "ever-deepening recognition of the always already political nature of the practices of research and interpretation" (p. 556). This has led to a greater emphasis on reflexivity on the part of the researchers and recognition of the complexities of representation. It has also led to a shift from the research as an 'all-knowing analyst' to an awareness of the role as a participant in the creation and dissemination of always partial knowledge (Denzin & Lincoln, 2000, cited in Clarke, 2005, p. 556). Importantly, this 'turn' in grounded theory offers

space for *theorizing* rather than the presentation of formal theories. In this study, I aimed to acknowledge the impossibilities of coherence and neutrality, of achieving an exhaustive understanding of any subject matter.

Clarke's approach to grounded theory arises from Anselm Strauss's social worlds/arenas/negotiations (Clarke, 2005, p. 554). In this method, social structure is of utmost importance and can be understood in the interactions among micro-, meso- and macro-level analysis. Drawing on Strauss's theories of "negotiated order" (1978) to understand social order or social change requires an examination of the negotiations among units of varying scales (e.g., commercials to nation-states). Inspired by these methods, I sought to examine the myriad intersecting conditions surrounding the climate crisis, thinking through the way these bind me (the researcher) to the researched (the activists), and attending to negotiations among scales.

In this study, I focused on complex situations of inquiry, occurring across multiple sites, discourses, images, and histories. I followed complex situations of inquiry through the media, social media, and the particular groups I aimed to study: Conceivable Future and BirthStrike. In grounded theory, the analysis begins as soon as there is data, as does the coding and theorizing (Glaser, 1978). Towards this end, a key technique in navigating this process was Clarke's (2005) situational mapping to "open up" the data. In this technique, I would write out everything I could think of that related to a situation: the nonhuman elements, key participants, interpretations of the situation, ideologies, controversies, technologies, organizations, discourses, etc. For instance, looking through my jottings, field notes, and memos, I created maps that enabled me to think through the various sites, discourses, histories, and people I had been spending time with during the process.

The situational mapping technique aligns well with the CCS method as Bartlett & Vavus (2017) aim to reconceptualize culture and context by advancing a revised understanding of the value of comparison. Bartlett & Vavus (2017) suggest that researchers iteratively trace relevant factors and actors. Situational mapping offers a way to actualize this through a process-oriented approach less reliant on a preconceived hypothesis. Mapping invited new (sometimes unexpected) leads useful towards integrating external factors that might influence the case and support me in reaching theoretical insights. This expansive mapping is not an abandonment of the particular; it is an embrace of "context" as a complex interplay between processes, politics, and ideoscapes – the ideologies and other political images that circulate globally (Appadurai, 1996). As opposed to case studies that aim to replicate or generalize by downplaying nuance and particularities, this case study explored the productive connections between people, situations, histories, ideas, and processes. This approach to grounded theory, using situational maps as an analytical tool, resonates with Bartlett & Vavrus' call to 'unbound' culture while "seeking to conduct rich descriptions of phenomenon of interest to the researcher" (2017, p. 9).

Mapping Directions

Distillations from maps

Key People	Blythe, Josephine, Meghan
Technologies	Twitter, Tumblr, Video
Points of Blame	Fossil Fuels, Corporate Greed
Discourses	Reproductive Labor, Reproductive Rights, Reproductive Justice
Movements	Population Control, Climate Crisis, Women's Liberation
References	Hysterectomies, Sterilizations
Histories	Rights of the Child, Comstock Act, Population Bomb
Places	House Parties, Museums, Protests, Social Media
Testimonials	Becoming a Mother, Caring for the Earth, Baby-making, Making a Family
Demographics	Western, White, Would-be-mothers
Techniques	Testimony, Consciousness-raising, Media Campaigns, Protests
Temporalities	"Biological Clock," Repro-time, Climate Change Time, Generational Time
Affects	Grief, Desire, Fear, Empowerment

The process of creating and re-creating situational maps provoked analytical memos asking: *Who and what are in this situation? Who and what matters in this situation? What elements "make a difference" in this situation?* (Clarke, 2005, p. 561). To answer this in a theoretically and analytically generative way, one must take each element in the map and think about it in relation to all the other elements in the map. This process is expansive as new maps are created. With new elements come new relations and analytical memos. Making these maps helps to determine the major elements in the situation, and then finding connections across the major elements invites investigations into the relationships among them. Rather than reducing what was a possible area of study, these maps helped bring out complexities enmeshed in this research.

In this way, I was able to discover theory as I untangled data. For instance, the reoccurrence of the term "grief" across the testimonials and media appearances led me to read books on grief and (in)fertility to better understand this term as it relates to feminist theories of reproduction (e.g., Kimball, 2019). Reading on this topic led me to readings on folklore related to the 'childless women' (e.g., Behjati-Ardakani et. al., 2016). This pathway led to many highly gendered readings, so I also began to learn more about fertility for gender non-conforming and transgender individuals (e.g., https://transfertility.co). From here, I re-visited all the testimonials tagged "childless by choice" and revised situational maps that referenced this movement. Through this iterative process, I could "address specific theoretically interesting facets of the emergent analysis" (Clark, 2005, p. 557).

Another example of my process is when I added Alice Brown as a key person in a situation map. Alice often does media appearances to talk about BirthStrike. Exploring Alice came with an exploration of Christian imagery due to the way she is often depicted in the media

(see image below). This shifted my analytical lens and led me to theories on religious purity and innocence (e.g., Ticktin, 2017). As I repeated this process, I continued to ask, *what more did I need to see or experience to understand how this theory is animated in and within these situations?*

Alice Brown of BirthStrike (Hunt, 2019)

Creating situational maps helps show silences in the data. Connecting self-identified feminist activists to longer histories of activism in environmentalism and women's liberation led me to historical and theoretical writings about waves of concerns across the 20th century about the instability of the "American Family" (a bourgeoisie heteropatriarchal family), and efforts to "save the child" that defines that family. Learning about a range of moral panics helped me better understand the moralizing child-centric rhetoric and how those might be deployed by activists.

Furthermore, aside from the word 'strike' in BirthStrike, the relationship to labor was largely silent in the data. "Strike" was often used symbolically, but rarely explicated in testimonials, social media produced by these groups, and across a variety of media spotlights. Adding "labor" to the map enabled me to find more depth and complexity in the situation by including new theoretical concepts to guide further research. For instance, I discovered another Birth Strike more explicitly centering issues of reproductive rights and labor (Brown, 2019). I read literature on the organizing tactic of the strike (McAlvey, 2021) and considered the use of

the word “strike” in BirthStrike. I investigated the archives to find out about past movements that more explicitly connected their gestational labor to work (Federici, 2012), and focused on The Wages for Housework campaign of the 1970s. This campaign explicitly connected the power of uterine and parenting labor to uphold capitalism with slogans like “every miscarriage a workplace accident” (Toupin, 2018). In Wages for Housework, the home and the factory floor did not need to be treated as entirely separate domains (one within capitalism and one perceived as outside). This elucidated for me a key question about BirthStrike: *what are they withholding and what is their power?*

The decision to conduct a generative comparison between two contemporary activist groups, looking for similarities and differences across these groups, arose from observing that the press frequently featured Conceivable Future and BirthStrike in the same stories. The press often portrayed these groups as the same, flattening important differences in their approaches and desired futures. I wrote analytical memos on the differences between the groups, their different tactics, and visions of the future. Through memos, I explored numerous questions, such as, *how do BirthStrike and Conceivable Future imagine “the child,” and what does this tell us about the role of reproductive futurism in contemporary climate activism?* As I continued this process, I felt more ‘grounded’ as I began to consider topics to turn into articles. The maps contained infinite directions across time and space from which to proceed. Researching in this way enhanced this comparative case study opening the data and guiding me, not towards answers, but toward more complex and multifaceted questions.

> How do we understand something? We understand something by approaching it. How do we approach something? We approach it from any direction. We approach it using our eyes, our ears, our noses, our intellects, our imaginations. We approach it with silence. We approach it with childhood. We use pain or embarrassment. We use history. We take a safe route or a dangerous one. We discover our approach and we follow it.
> —*Goat Island (Goulish, 2000, p. 46)*

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