Fostering Agency in Climate Change Education:

Contextualizing Climate Change in Place-Based Experiences

The Place Journal

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BIS 456 A: Climate Grief, Anxiety, and Resilience

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While attempting to develop an elementary science unit on climate change, the same two questions continue to surface for me: How do I help my students cope with big emotions to find agency in the face of climate change? And, simply, Where do I begin? A philosophy professor at Rice University, Timothy Morton, describes climate change as a "hyperobject," an entity "of such vast temporal and spatial dimensions that they defeat traditional ideas about what a thing is in the first place." Climate change as an exceptionally complex "moving target" all around us mirrors the complexity of emotions in response to such alarming change within us. As a teacher, I failed as I began to teach about climate. The more I shared the data, the more my students shut down. Shutting down looked like apathy, grief, anger, and a host of existential questions. By not attending to my students' emotions or, frankly, knowing how to, I felt I was causing more harm than good. In a sense, I was. Shutting emotions out of the climate conversation was exactly what was causing my students to shut down.

I needed a tool for myself and my students to contextualize climate education in their loved, local environments, emotions, and lived experiences to foster agency - a sense of control and capacity to influence the future - in the face of climate change; so, I designed the Place Journal. The journal is intended to travel with 4th-8th grade students to and from school to spark discussions and explore climate phenomena close to home, in the classroom. It is intentionally designed to be a tool for connection to self, place, community, and action.

Climate education becomes more personal, relevant, and empowering when educators can center student funds of knowledge (Moll, 1992) concerning place attachment and create space for climate emotion in the classroom. The Place Journal is a tool designed to support this practice.

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Fostering Agency in Climate Change Education:

Contextualizing Climate Change in Place-Based Experiences

A Research-Based Rationale for The Place Journal

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Master's of Education Exam 2

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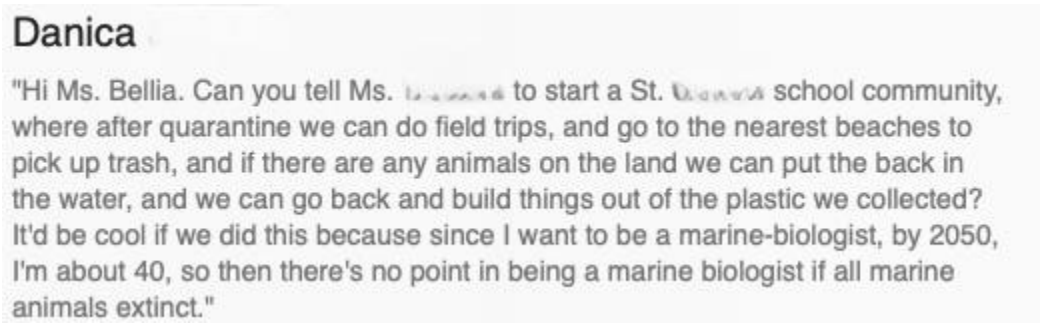

Introduction:

While attempting to develop an elementary science unit on climate change, the same two questions continue to surface for me: How do I help my students cope with big emotions to find agency in the face of climate change? And, simply, Where do I begin? A philosophy professor at Rice University, Timothy Morton, describes climate change as a "hyperobject," an entity "of such vast temporal and spatial dimensions that they defeat traditional ideas about what a thing is in the first place." Climate change as an exceptionally complex "moving target" all around us mirrors the complexity of emotions in response to such alarming change within us. As a teacher, I found myself failing as I began to teach about climate. The more I shared the data, the more my students shut down. Shutting down looked like apathy, grief, anger, and a host of existential questions. By not attending to my students' emotions or, frankly, knowing how to, I felt I was causing more harm than good. In a sense, I was. Shutting emotions out of the climate conversation was exactly what was causing my students to shut down.

After months of research on how educators can attend to emotions in climate education, I have since redefined what I believe success looks like while teaching in the era of climate change. Success occurs when we can find tools to individually and collectively process and

harness climate emotions to heal and find agency - a sense of control and capacity to influence the future - in a changing world. The first step towards this reality is to begin the same way all lessons do, with what my students already know and care deeply about. To attend to climate emotions, educators must start where there is connection. We must begin in the place we stand and lean into our emotions along the way.

Purpose:

I designed the following Place Journal as a tool for educators and students to contextualize climate education in their local environments and lived experiences to foster agency in the face of climate change. The journal is designed to travel with students to and from school to invite place attachment, student expertise, and climate emotions into the science classroom. It is intentionally designed to be a tool for connection to self, place, community, and action.

Though the effects of climate change are everywhere, most climate curricula centralize case studies on significant issues far from the Pacific Northwest. While it is valuable for students to learn about Amazon deforestation, coral bleaching of the Great Barrier Reef, and melting of the Greenland ice sheet, examples far from home contribute to the perception that climate change is far away, making the crisis less personally relevant (Scannell & Gifford, 2013) and decreasing students' sense of agency. Psychological distance, defined as "the degree to which objects, people, places, and events are removed from an individual's immediate, direct experience," can be a barrier to climate engagement (Scannell & Gifford, 2013). To effectively communicate climate issues, Leiserowitz (2007) proposes centering local and regional impacts of climate change over global impacts, as decreasing the gap between climate impacts and personal concern can increase engagement (Scannell & Gifford, 2013). This is where place attachment, defined by

Scannell and Gifford 2013 as “The formation of emotional and cognitive bonds with a particular place,” comes into play as essential to effective climate education.

Reaching outside the classroom and centering climate education on places students know and care about invites student funds of knowledge into science learning. This pedagogical approach deepens science learning while promoting inclusivity and justice in the science classroom, especially where dominant voices and worldviews have been privileged; “Viewing the funds and Discourses students have as valuable resources that can be recruited for school science allows not only for a smoother transition between students’ lifeworlds and the science classroom but more importantly, it also challenges the tight boundaries of school science funds and Discourse to be more fluid and porous to nontraditional student resources” (Barton & Tan, 2009). This has not been a reality in science education. Science instruction has historically failed to provide challenging, engaging, and meaningful science education for marginalized students. As best stated by Bang et al. 2017, students from marginalized and historically underserved communities “...experience science instruction as disconnected from their experiences in life, their questions about the world, and the concerns of their communities” (Bang et al. 2017). Place attachment in climate change education rests at the perfect intersection to disrupt this pattern and construct more equitable science learning in its place. The Place Journal is designed to blur the lines between the classroom and our broader communities as students share life experiences, questions, and concerns in the face of climate change.

Climate education tends to focus heavily on explaining climate science while neglecting the host of emotions that intrinsically arise from the existential nature of our changing home. Research suggests that climate literacy is essential to the ongoing effort to spark engagement with climate action; however, the emotional complexities that often go unacknowledged pose

unique and complex pedagogical challenges (Ojala, 2016). Ecological grief, guilt, despair, and anxiety result *from* growing awareness of the climate crisis, causing "the evolution of a new emotional landscape" that educators especially must be prepared to engage with (Ojala, 2016). Attending to emotions in climate education is essential to creating humanizing and sustainable pathways to climate engagement. Schools have been described as "emotional hotspots" where powerful emotional responses to climate are evoked (Ojala & Bengtsson, 2019); yet, emotions in science, and especially in climate education, have been shut out.

Inviting emotion into a space where rational, cognitive, and objective aspects of teaching and learning are privileged and emotion is seen as disruptive, peripheral, or even irrelevant to education (Bright & Eames, 2022; Bryan, 2020) is complex, yet essential. Emotions in climate change are not something we will ever "get over" nor should they be approached this way; instead, our emotions are what can be the very things that empower us to face change and act. As stated simply and beautifully by Ahmed (2014), "... far from being 'after-thoughts', emotions are instrumental in shaping how we are moved by the worlds we inhabit" (Bryan, 2020). To fail to acknowledge them is to dismiss their power. As educators, we must help students reframe their emotions to see them as key reminders of our deep care and empathy for the planet, our deep desire to thrive, and as key indicators that it is time to act. Caroline Hickman, an eco-psychotherapist, asserts that eco-anxiety should not be pathologized as a mental disorder but rather treated as an emotionally healthy response to the reality that young people face (Bright & Eames, 2022). Hickman argues that anxiety should not be considered a deficit emotion, but rather a key indicator of one's growing awareness to a very real crisis; "Perhaps some intergenerational relational healing can be found by transforming eco-anxiety into eco-awareness, eco-community, eco-agency, eco-aliveness, eco–empathy, eco-compassion,

eco-care and eco-awakening as humanity continues to learn how to live with and on a suffering planet" (Hickman, 2020). Jennifer Atkinson reframes our response as "moral emotion": "A healthy and indeed compassionate response to the existential threats we face (Atkinson & Ray, 2021).

Climate education becomes more personal, relevant, and empowering when educators can center student funds of knowledge (Moll, 1992) concerning place attachment and create space for climate emotion in the classroom. The Place Journal is a tool designed to support this practice.

Design Elements

The journal is organized into sections divided by reflective quotes by BIPOC writers, scientists, and activists. The areas around these quotes are left intentionally blank, which is a design feature throughout the journal. A critical philosophical approach intended to be communicated in the design itself is that there are no "right" or "wrong" ways to express emotion and funds of knowledge. Open-ended prompts and open spaces are purposefully left as blank canvases for expression. The sections themselves are not designed to be self-contained, but rather thematically organized toolkits that can be entered into at any point.

The journal begins with a prompt for students to choose a place that is special or interesting to them that is nearby. Choosing a meaningful place outside that is close to home contends with the settler colonial idea that nature is a place that we must travel to while inviting the intentional practice of observing change on local, often urban, scales. Climate change engagement has shown to be greater among those more attached to their local areas (Scannell & Gifford, 2013). When looking at how the relationship between connection to local areas and

concern for climate can emerge, Scannell & Gifford suggest one possibility: "...when individuals recognize that the impacts of global climate change have local implications, they may become more averse to its risks and then mobilize themselves to act. This is congruent with previous research showing that place attachment evokes opposition to place threats and motivates place-protective behavior" (Scannell & Gifford, 2013). This is an emotional endeavor, which is why observational prompts are intermingled with emotional processing prompts.

Connection to Self: Grounding in, Gratitude, and Reflection

Section one is primarily focused on the connection to the self in place. As stated by climate educator and researcher, Jennifer Atkinson, We often talk about the external damage that climate change creates, "but there is a whole landscape of damage we carry inside of us as well. Our mental health is intimately linked to the natural world" (Atkinson, 2020, 1:40). Effective climate education makes emotion visible. Making time for heavy emotions such as eco-despair, guilt, grief, and anxiety, which often result in expressions of pain from loss and uncertainty, is essential for many reasons. When these eco-emotions go unacknowledged, forms of emotional paralysis and isolation occur. Climate change education, especially when made relevant to learners' lives through a localized, place-based approach, centers learners' lived experiences and knowledge but also carries the heaviness of bringing change even closer to home. Ecological losses that go unconfronted and unprocessed can lead to debilitating emotions such as numbness, cynicism, and apathy (Atkinson & Ray, 2021). Giving space and time for students to craft their worries into words can allow concerns and values that lie behind them to come to the surface to be both acknowledged and analyzed for deeper understanding and critical emotional awareness (Ojala, 2012).

Welcoming stories about where youth have seen climate change in their lives and how this change affects them validates their experience, welcomes their knowledge and creates opportunities for connection between lived experiences within and across communities. Further, building consistent mindfulness practices that support self-care such as reflective journaling, sharing gratitude, artistic expression, spending time outside, taking breaks (Birdsall, 2020), and other sustainable practices helps teach young people that this is a necessary and meaningful part of staying engaged with hard work. This section is intended to be one that students return to, to ground into place, practice gratitude, and check in with their internal emotional landscape.

Connection to Place: Reflecting on Change

Section two provides prompts that guide students to slow down and reflect on what change means, where they see change in their chosen place, and how climate/change makes them feel. This section intentionally begins by prompting students to tell a story about their chosen place. Stories are key to centering students' ways of knowing and funds of knowledge while being opportunities for community connection. Stories are the jumping-off point to thinking about change in place across time scales in the past and present. According to a Learning in Places framework on observations, "Learners' observations signal prior experiences, what is valid or important in their lives, as well as what they find interesting." Asking learners to elaborate on their observations helps educators better understand and engage with their perspectives and practices (LiP, 2021). To help students find agency in the face of climate change, observing change on local scales within their sphere of influence can offer an approachable entry into taking action. Throughout this section, prompts to observe and research change in student surroundings alternate with prompts connecting with emotions to connect

external and internal change. This section concludes with a short research prompt to learn more about the places students chose to be with over time. The intention here is to allow research to open up conversations about current events and social justice issues connected to our local environments and climate justice.

Connection to Community: Building a Community Web

Building community and collectivism is one of the most powerful tools for combatting emotional isolation and finding climate agency. The first step to this is recognizing and reflecting on being a part of something much larger than ourselves. We care about the places and beings that we know, so this section is all about recognizing human and more-than-human community and building empathy for the human and nonhuman beings we share our local environment with. This is an Indigenous perspective and practice discussed in depth by Robin Wall Kimmerer in *Braiding Sweetgrass.* Kimmerer explains, "The traditional ecological knowledge of Indigenous harvesters is rich in prescriptions for sustainability. They are found in Native science and philosophy, in lifeways and practices, but most of all in stories, the ones that are told to help restore balance, to locate ourselves once again in the circle" (Kimmerer, 2013).
As we move toward and participate in climate action, recognizing ourselves as community members grounds and empowers our work in a broader narrative of care and reciprocity.

Connection to Action: Action and Self-Care

Grounding climate education in place has immense implications for climate action. Psedoinefficacy is "the idea that people are less willing to help one person (or address one problem) when they are made aware of the broader scope of people or problems they are not

helping" (Class 3, slide 19). The immense spatial and temporal scales of climate change coupled with Western individualistic approaches to action leave us with the false perception that anything we do is ultimately ineffective - immobilizing us as change feels far beyond our reach. Scannell and Gifford's research is closely related: "Psychological distance may hinder climate change engagement - why bother to change one's habits and lifestyles for a cause that is outside one's daily sphere?" (Scannell & Gifford, 2013). We must reduce the gap between the impacts of climate change and our spheres of influence.

The action section of this journal supports the understanding that we must recognize the unconditional need for joy, presence, and rest despite how heavy this work can be. While our anxiety, grief, and despair over the state of the planet - our home - rests heavily on our shoulders it is natural to wonder if there is time for joy, pause and play. There must be. For each of us to bring our strengths and creative capacity into climate action we have to care for ourselves and for each other along the way. All good work takes time and this is the work of a lifetime. This is why this section is not all about the urgency of "doing." Slowing down to feel and process climate emotions is climate action. Spanish philosopher, Daniel Innerarity is referenced for the idea of "false motion," the concept of how "'doing something' undermines the reflection needed to get somewhere better not just different" (Van Dooren & Rose, 2013).

To sustain engagement with this work, we must also sustain ourselves. Nurturing purpose is deeply connected to prioritizing joy, gratitude, and self-care that fills us back up. In *A Field Guide to Climate Anxiety,* Sarah Jaquette Ray explains, "To burn out trying to resist a system that is fueled by burning things out is not resistance." Ray also asks us: "What do we have to lose by taking pleasure in our work, slowing down, and doing the part we *can* do, *well?*" (Ray, 2020). There is so much value in this work and it can be done in a life-giving way, in a way where

meaningful purpose is unavoidable, and in a way where we can see bits of the future that we are building right here in the present.

Vision and Conclusion

This journal is a tool made to uplift emotional emergence, center discussion related to home and student lived experience, ground climate education in place, and build a responsive learning community in the process. Emotion is the thread woven through the entire journal. Inviting emotion into the classroom will help us process, connect, question, and mobilize toward a better future in the era of climate change. Our connection to the planet through emotions will show us a way forward if we don't allow them to paralyze us; if we would only lean in, they could take us somewhere beautiful.

Author's Note

Below are ongoing questions that I plan to continue engaging with throughout my life and career doing this work:

- How can my instruction desettle the colonial story that Nature is a place we go to?
- What does it mean for me to teach using Indigenous perspectives as a white educator?
- What does it mean to intentionally and ethically engage with place attachment on stolen land?

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