

# Creating Climate Resilience: An Arts-based Approach for Helping Youth Process Climate Anxiety and Generate Active Hope

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BA in IDS (Honours), Dalhousie University, 2020

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We acknowledge and respect the Lək'wəḡən (Songhees and Esquimalt) Peoples on whose territory the university stands, and the Lək'wəḡən and W̱SÁNEĆ Peoples whose historical relationships with the land continue to this day.

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## Abstract

As anthropogenic climate change advances, young people globally are experiencing alarmingly high rates of climate distress, including climate anxiety and ecological grief. Emerging data demonstrating the disproportionate psychological burden on young people and its wide-ranging impacts underscores the urgency to provide appropriate and accessible mental health supports. Despite this, research to date has largely focused on defining, scoping and typologizing climate emotions, rather than directly involving those most impacted in qualitative research to develop and evaluate interventions. Given participatory arts' track record in promoting psychosocial benefits, this research explores 1) can visual artmaking and dialoguing help young people process climate anxiety and related eco-emotions? If so, how? And 2) in what ways might this arts-based approach help youth generate active hope, if at all? I investigate these questions through the design, piloting and evaluation of three visual artmaking and dialogue sessions with youth ages 17 – 21 in Victoria BC. As a Youth Participatory Action and Arts-based Research study participants contributed directly to theorization through interviews, original artwork and artist statements exploring climate anxiety and their visions for a climate resilient future. The sessions were found to support emotional processing through providing a dedicated time and resources to engage with climate emotions, a co-created safe space for youth, intentional prompts, and the interplay between individual and collective components. Participants reported an array of intersecting outcomes, including helping them identify specific thoughts and feelings, express emotions beyond words, release and transform so-called 'negative' emotions and foster feelings of pride and empowerment. The findings point towards the vital need for youth-led spaces in which they feel safe to express a wide palette of emotions about the climate crisis without expectation of resolution. Their visions of the future suggest that

participants' hope is gleaned from real-world examples of resilient human and more-than human systems and fueled by their commitment to protect and strengthen them. Ultimately this research emphasizes valuing both 'negative' and 'positive' climate emotions, the arts, and community as rich sources of wisdom and motivation to address the climate crisis.

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I dedicate this thesis to young people everywhere engaging in climate justice work, education, advocacy and activism. You are the unstoppable force that keeps me motivated and inspired to continue to fight for a better world. You deserve the care, love and empathy you show to human and more-than human others and the planet. Your wisdom, passion and energy are needed so much right now, and so is giving yourself the time to rest, grieve and be in community. To the artists that might not yet recognize this inside themselves: even if you are the only person who ever sees it, your art is valuable.

To all Young People: Your voice matters. Your art matters. Your feelings matter.

## **Chapter One: Introduction**

### **1.1 My Story**

It is June 2021, and I am sweating in my office on the second floor of my parents' old house in so-called Vancouver, British Columbia. We are a few days into the heat dome that would later become infamous, claiming the lives of over 600 people in a matter of weeks. I am working virtually for a youth-serving nonprofit organization, researching and advocating for more ambitious environmental policies as the world burns around me. My grandparents are evacuated from their home in the Shuswap as the heat dome exacerbates the already extremely dry conditions and wildfires rip through landscapes I've known since I was a child. I think back to the summer before twelfth grade (2014) when I saw wildfire smoke envelope the city for the first time. Now it happens at some point every year, arriving earlier, lasting longer, with thicker smoke and redder skies. Over a month after the heat dome my grandparents are finally allowed to return home, and for short span of time I have respite from thinking about climate change 24/7. Then the autumn rains fall in overabundance: an atmospheric river floods homes, drowns livestock, and inundates essential infrastructure, including the highway that connects us to where my grandparents live, entirely breaking apart and washing away stretches of road. I have freshly turned twenty-four years old, and the weight of the world is on my shoulders. I wonder if this is what the rest of my life will be like: going from one climate change-induced natural disaster to another on a perpetual loop.

At some point I find the energy to take out my acrylic paints, squeezing out the reds, oranges and black of the fires on one canvas, and the blues, white and greens of the floods on another. Spreading out the colours with my palette knife I am immersed in my task, letting my

emotions ebb and flow with the movement of paint around the canvas. It is only after looking at the completed creation that I see what I was channeling: climate anxiety, ecological grief, fear, anger and despair. I post photographs of my paintings online and I am shocked: so many young people resonate with what they express. I feel comfort in the shared experiences of climate emotions, but dismay at the scale of the problem. So many young people are feeling this burden with me, but the pandemic has left many of us feeling isolated, disempowered and burnt-out.



*Figure 1 Love Letter to the Land: After the Fires and Floods by Sabrina, December 2021*

I wonder: if artmaking can help me, could it be a tool to support other young people who are experiencing these intense mental health impacts of climate change?

I share this story with you as my way of introducing myself and what brings me to this research. I am a white bisexual woman of mixed Mexican European descent, and a climate justice advocate, artist, researcher and youth consultant. As I write this, I am 27 years old and a settler on the unceded and ancestral territories of the Lək̓ʷəŋən (Songhees and Esquimalt) and WSÁNEĆ Peoples, colonially known as Victoria, British Columbia. I have been part of the climate justice movement since I was 15 years old and now possess over a decade of experience

organizing campaigns, researching and advocating for climate action, and working for environmental organizations from coast to coast. I acknowledge these aspects of my identity as they implicitly and explicitly informed the decisions I took regarding my research questions, study design, and analysis. I hold many privileges through my access to higher education and certain decision-making spaces, and being a white, straight-passing, able-bodied person within activism and academia. Situating myself within the political, social and cultural context that informs my worldview and approach to research is essential, especially given how closely my own lived experiences with climate emotions align with those of my study participants.

## **1.2 Research Overview**

### ***1.2.1 Research Problem***

*“As climate change becomes felt by more people, the boundary between those who worry about a future apocalypse and those who are experiencing that apocalypse right now will further blur. The climate generation is at the cusp of that story.” (Ray, 2020b, 5)*

The Intergovernmental Panel on Climate Change (IPCC) has long since established the scientific consensus that we are in a time of unprecedented climactic changes that are inextricably linked to past and current human activities (IPCC, 2021). Extreme weather events like those described in my story are becoming more common and severe around the world, as natural patterns and ecosystems functions are increasingly disrupted. As anthropogenic climate change builds in both scale and speed, communities globally are experiencing increasingly traumatic impacts to both physical and mental health. Surveys of youth (ages 16 - 25) in Canada and ten other countries around the world have demonstrated alarmingly high rates of negative

emotional responses to the climate crisis, highlighting the disproportionate mental burden on young people (Hickman et al., 2021; Galway & Field, 2023). These negative emotional responses, often referred to as climate emotions, encompass a broad range of feelings including guilt, anger, and grief. Climate anxiety in particular has become a widely used term to encompass feelings of worry, distress, despair and fear associated with the increased force and frequency of climate impacts. These feelings can emanate from lived experiences of impacts and/or the anticipation of future impacts, as more and more people around the world become aware of the full extent of the climate crisis.

While people of all ages can and do suffer from climate anxiety, climate emotions experts consider young people to be one of the more vulnerable populations. The Federal Government defines youth as those between the ages of 15 and 30, with many practitioners and scholars emphasizing the susceptibility of those under the age of 25 (Government of Canada, 2021). In a global survey of over 10,000 youth ages 16 – 25, 59% of participants reported feeling extremely worried about climate change, over 50% felt sad, anxious, angry, powerless, helpless, and guilty, and over 45% said their feelings about climate change negatively affected their daily life and functioning (Hickman et al, 2021). Building on this, Galway and Field's (2023) survey of 1000 Canadians in the same age range found that 56% of respondents reported feeling afraid, sad, anxious, and powerless about climate change, 78% reported that climate change impacts their overall mental health, and 37% reported that their feelings about climate change negatively impact daily functioning. Daily functioning encompasses factors such as the ability to eat, sleep, concentrate, and motivate oneself to complete basic tasks such as bathing and getting dressed. As inheritors of the burden of the climate crisis from previous generations, young people feel intense feelings of betrayal and mistrust, particularly towards governments and their inadequate

action on climate change (Hickman et. al, 2021; Allured & Easterlin, 2024). This has a wide range of short, medium and long-term impacts including political apathy, chronic depression, debilitating anxiety, and even PTSD, as well as repercussions for reproductive justice as many young people question the ethical implications of having children (Wray, 2022).

The disproportionate mental and emotional burden of climate change felt by young people is exacerbated by their relative lack of economic and political influence (in relation to older generations) regarding climate mitigation and adaptation. Young Canadians are frequently excluded from decision-making spaces (Kroft, 2022) and remain underrepresented in electoral politics (Stockemer, Gallant & Toller, 2024). Thus, even though climate change poses disproportionate threats to their futures, youths' input is less likely to be considered in climate and environmental policymaking. Societal views in Canada and many other Western countries tend to undermine the power that youth do have by treating them as “underdeveloped people not quite ready for self-determination” (Tuck & Yang, 2014, 4). This is despite widespread campaigns led by Canadian high school and post-secondary students such as the Fridays for Future Strikes and campus fossil-fuel divestment. Multiple public polls and Statistics Canada surveys demonstrate the higher degree to which youth care about the environment and actively contribute to climate action compared to other age groups. Young people spend more of their volunteer hours working with environmental organizations than older segments of the population, and most youth agree that Canada has an obligation to lead on initiatives to address climate change (Arriagada & Pinault, 2022). Being involved in environmental work and activism poses additional challenges, including more exposure to scarier climate-related news, increased frustration with the lack of governmental and societal progress, difficulty in balancing self-care with activism, and tensions in their personal relationships with family or friends who do not

share their values (Ojala & Chen, 2024). Additionally, youth activists may face increased exposure to “criticism and discrimination, experience increased feelings of anger, and become disillusioned and burnt out” especially when they are being tokenized and not taken seriously (Ballard & Ozer, 2016).

Not only do many youth lack the material resources to deal constructively with the negative emotions that climate change can elicit, they also often lack the psychological resources (Ojala & Chen, 2024, 169). Young people, especially those with intersecting marginalized identities, face greater barriers than older generations to accessing adequate and appropriate mental health resources due to stigma, cost, location, cultural and other social factors (Lee, 2022; O’Neill, 2023). Demand among Canadians 18 – 25 for counselling, therapy and similar services peaked during the COVID-19 pandemic and has remained high (Murray & Knudson, 2023). Barriers and unavailability of services are even more pronounced when it comes to climate-aware mental health care, with many clinicians lacking the training needed to meaningfully respond to young people’s climate distress (Cunsolo et al., 2020; Wray, 2020). For example, although a validated climate anxiety research scale exists for adults, “there are currently no validated measures of climate-related feelings for children for use in therapeutic settings” (Allured & Easterlin, 2024, 196). Beyond formal therapeutic and counselling arrangements, there are few places for those who care about climate change to express its impact on their mental health. Climate cafes and climate circles have been rising in popularity as informal, loosely facilitated, and often grassroots-organized spaces where attendees are invited to share freely about their emotional responses to the climate crisis, without concern of toxic positivity or pathologization (Dietz, 2024). While these are becoming more widespread, they still tend to be concentrated in major urban centres and are usually facilitated by non-youth with intergenerational attendees. The

qualifications of hosts and the quality of facilitation varies widely, with some being hosted by licensed mental health practitioners but the majority by laypeople.

Creating supports that are accessible to youth, especially those involved in climate action, is of utmost importance to help them avoid and/or mitigate burnout, despair, and apathy. Youth make up a large proportion of the climate justice movement worldwide and helping them sustain their engagement in pro-environmental behaviour and activism is essential for the success of the movement as a whole. Scholars and activists alike are pointing toward the need for social movements to develop strategies for “emotional intelligence, self-regulation, understanding our ‘windows of tolerance,’ mindfulness, and critical thinking” (Ray, 2020b, 28). Whilst these strategies have been overlooked or even looked down upon in the past by many movements, some recognize that to be “effective at building long-term resilience and collective well-being, mind/body practices need to be part of the wider cultural change within movements” (Rowe, 2016, 215). In her book *A Field Guide to Climate Anxiety* Sarah Jaquette Ray argues that anybody who wants to work on climate justice for the long haul will need “resilience-building skills in order to do the external work of climate advocacy and community engagement” (2020b, 28). The Mental Health and Climate Change Alliance (MHCCA), which comprises of multi-disciplinary researchers and practitioners across so-called Canada, recommend small scale to large scale approaches including peer support services, land back and Indigenous sovereignty, resilience building and self-empowerment, counselling, community building, emotional literacy, and fostering a connection to the Earth, among others. Within the youth climate justice movement itself there is increasing recognition of the importance of mental health and emotional resilience in sustaining political engagement and environmental activism. Youth organizers are actively calling for work to “develop proactive, equitable and accessible resources and networks

to support climate mental health and wellbeing” (UBC Climate Hub, 2022, 11). Many youth researchers, youth-led organizations and grassroots campaigns are already engaged in creating research, resources, and events to fill this need themselves (Gelderman, 2022; The Sustainable Act, n.d.).

### ***1.2.2 Research Gap***

To date, mental health and climate change scholarship has been chiefly concerned with developing an understanding of ‘negative’ climate emotions, including how they are experienced, what distinguishes them from each other, and the number of and extent to which people are being impacted. As I will unpack further in the Critical Context, scholars have identified and typologized numerous climate emotions including climate anxiety, worry and grief. These are often experienced in connection with other ecological emotions which originate from environmental degradation and ecological loss more broadly, rather than climate change specifically, such as ecological grief. Researchers have established that climate anxiety and related eco-emotions are disproportionately experienced by adolescents and young adults, Indigenous peoples, those with chronic health conditions, farmers and others who work closely with the land, and people with disabilities, among other vulnerable communities (MHCCA, n.d.; Ojala et al., 2021). In terms of what we might consider ‘positive’ climate emotions, authors from journalism, deep ecology, psychology and related fields have argued for the importance of cultivating hope for individual mental health and collective action (Solnit, 2004; Macy & Johnstone, 2012; Ojala, 2012). Proponents have put forward multiple articulations of what forms of hope are useful for sustaining social movements and addressing climate emotions, including active hope (Macy & Johnstone, 2012), constructive hope (Ojala, 2012), critical hope (Grain, 2022), and messy hope (UBC Climate Hub, 2022). They all critique forms of hope that are

passive or naïve and instead advocate for hope that balances awareness of intersecting crises and their systemic roots with an optimistic outlook of one's ability to contribute to a better future.

While this suggests a vague consensus on the form of hope most needed at this political moment, there are fewer studies which explore how best to support young people in cultivating it.

In this study I was interested in the role and potential of art for both processing 'negative' emotions and fostering active hope, and multisensory knowledge production in scholarship. As seen in the literature from art therapy, community-based research, neuroscience, psychology, and more, artmaking with groups can be generative in a multitude of ways (Spaniol, 2005; Seppälä, Sarantou, & Miettinen, 2021; Macoretta, 2017; Magsamen & Ross, 2024). Arts-based approaches offer a variety of cognitive, behavioural and affective benefits, such as stress relief and amplification of positive emotions. Especially when peer support is a component, these approaches can foster increased self-efficacy, sense of community, critical reflection, creativity, and transformative agency, which includes both the willingness to take action and belief that one's actions can make a difference (Macoretta, 2017; Wright, 2020). Examples include skit creation and performance (Wright, 2020), photovoice (Zurba et al., 2024), song writing and recording (Fletcher, Hackett & Carr, 2019), drawing and dialoguing with embodied images (West et al., 2024), Digital Storytelling (Fiddian-Green et al., 2019) and photography, quilting, collage and mask making (Clover, 2018), among others.

The ability of the arts to help people access and express emotions which are difficult to verbalize, or where words alone are insufficient, is what makes it so powerful in mental health recovery and research (Clover, 2018; Magsamen & Ross, 2024, 43). Neuroscientific research shows that the arts are "uniquely capable of accessing interconnected neural pathways that allow us to process emotions, name and express our feelings, and even work on accessing the

unconscious psyche” (Magsamen & Ross, 2024, 32). As I will explore in this thesis, this is especially useful when it comes to youth experiences of climate emotions. They may be too young to have the language or emotional awareness to fully articulate their thoughts and feelings, especially as they pertain to the enormity, complexity and simultaneous ambiguity and abstractness of the climate crisis. The arts are instrumental in offering a “kaleidoscope, enabling diversity in representation, but also simultaneity (capturing of these diverse interpretations and reflections), at once” (Archibald, 2022, 192). By allowing (and eliciting) a multiplicity of understandings rather than “pushing authoritative claims by implying which meanings are considered relevant or correct”, the arts open the door for necessary conversations (Bentz, 2020, 1599). Furthermore, visual arts methods have been shown to enhance research processes through co-creation of knowledge, multivocality, creative problem-solving, reaching diverse audiences, and enabling more horizontal relationships between researchers and participants (Burke, Ockwell, & Whitmarsh, 2018; Seppälä, Sarantou, & Miettinen, 2021). Despite this, visual arts methods are only just beginning to be employed in climate emotions research.

### ***1.2.3 Research Questions and Objectives***

As increased clarity emerges about how climate anxiety and related eco-emotions disproportionately impact youth, and the value of arts-based interventions for individual mental health and community-building, the question surfaces of what effects combining these approaches might produce.

This leads me to the following two research questions which guide this master’s project:

1. Can visual artmaking and dialoguing help young people process climate anxiety and related eco-emotions? If so, how?
2. In what ways might this arts-based approach help youth generate active hope, if at all?

### Research Question 1

As I shared in the opening vignette, visual artmaking has been a practice I have used to process my climate emotions, enabling me to sit with, explore and ultimately release them. I was curious if this approach could also support other young people. While conducting my literature review, I identified that visual artmaking has many psychosocial benefits for young people, especially when done with others who share similar mental health challenges. However, I found it difficult to find studies in which these methods were applied to climate emotions, beyond graduate studies in which narrative and poetry writing were used (Gelderman, 2021; Barraclough, 2022). Considering this and the dearth of research regarding interventions for climate anxiety and related eco-emotions, it felt vital to ask how artmaking might support youth in emotionally processing the climate crisis.

Initially I wanted to engage with both climate anxiety and ecological grief, as in my experience and the literature these emotions often come hand in hand. Ecological grief can stem from observable changes to ecosystems, and temporary or permanent losses of ecological features, non-human species and/or entire landscapes (Cunsolo & Ellis, 2018). However, because this inclusion would greatly complicate the study and there has already been considerable research on ecological and climate grief, I decided to primarily focus on climate anxiety. I did add ‘and related eco-emotions’ to the first research question to hold space for additional eco-emotions that might arise in the data collection, even if they wouldn’t be centred in the analysis.

I posed this research question in terms of processing emotions rather than coping—even though the latter is the norm in environmental psychology and climate emotions literature—for a specific reason (Ojala et al., 2021). Emotional processing can be characterized as “an individual’s attempt to understand and examine emotions in response to life events and

experiences,” with emotional expression being the subsequent attempts to verbally and nonverbally communicate and share these emotions (Fiddian-Green et al., 2019, 508; Stanton et al., 2000). Coping, on the other hand, tends to describe how people employ different strategies to defuse or evade negative/unpleasant emotions (Ojala & Chen, 2024). Many scholars and activists have critiqued the concept of coping with climate change as reinforcing the inevitability of climate collapse (i.e. that we are ‘locked in’ to a high-emissions scenario) and the immovability of the systems of oppressions at the root of the crisis (extractive capitalism, settler colonialism, heteropatriarchy, etc.). Encouraging young people to develop coping mechanisms for climate anxiety and eco-emotions can thus be perceived as encouraging acquiescence with the status quo, rather than challenging these narratives and emphasizing our agency in meaningfully mitigating climate change (Ray, 2020b). For these reasons, I emphasized practices (including artmaking and dialogue) that can help youth process their climate emotions, rather than coping mechanisms. While in practice these two concepts might overlap or be very closely aligned, the difference in language is significant to many young people, especially those involved in the fight against climate change.

To answer this first research question, I devised a series of artmaking and dialogue sessions which invited participants to explore and express climate anxiety and related eco-emotions and then interviewed participants to engage them in meaning-making and evaluation of the approaches used. The Methodology Chapter (Chapter 3) and Appendix 4 provides an in-depth description of the session design. Overall, the goal was to create a communal space for likeminded young people to discuss and create artwork about their climate emotions and to see whether the approach I took in my design was effective, which outcomes it had, and to what aspects participants attributed them.

## Research Question 2

Due to the political dimensions of mental health, primarily how climate anxiety and related eco-emotions might deter climate action and/or lead to burnout, I have wondered what can be done to support young people in sustaining their engagement in climate action. I was inspired by Macy and Johnstone's (2012) formulation of 'active hope', a state of mind and way of being where one is cognizant of the full scale of real-world problems and yet continues to have hope and work towards a better future. While many proponents of active hope and similar articulations have written about how it can be cultivated in a philosophical and theoretical sense, I have not yet seen applied research testing methods to generate active hope among youth and/or the role of visual artmaking. I explored this research question primarily through structuring the final session around a futures visioning exercise in which participants were invited to discuss and create artwork about what a climate resilient and socially just future might look like. I also collected artwork and artist statements from participants to further explore both research questions using arts-based research methods. In the interviews, the questions regarding the impacts of the sessions and how artmaking and dialoguing among young people might contribute to addressing climate change were structured in an open-ended manner to solicit additional thoughts participants might have regarding hope.

### **1.3 Thesis Overview**

This thesis follows the format of Introduction, Critical Context, Thematic Summary of Findings, Discussion and Conclusion. These are followed by Appendices including recruitment materials, interview questions, observational protocol, and the artmaking and dialogue session outlines. Chapter 2 introduces the critical context for the research: a broad and brief literature

review of climate emotions scholarship, impacts on young people, and a few key approaches to addressing climate emotions including therapy, activism and other mind-body practices. Here I highlight various gaps in literature and praxis, such as insufficient direct involvement of youth in theorization and creation of interventions to address climate emotions. Chapter 3 offers an overview of the methodology utilized in the study, elucidating the Arts-based Research and Youth Participatory Action Research frameworks, the design of the artmaking and dialogue sessions, recruitment, other data collection methods, and the Reflexive Thematic Analysis conducted. This is supplemented by Appendices 4 and 5 which detail the timings, facilitation techniques, and key feedback from participants on the artmaking and dialogue approach.

Chapter 4, the Thematic Summary of Findings is the centrepiece of the thesis and narrates the findings through four major themes and engagement with participants' artwork and artist statements. These include participants' understandings and lived experiences of climate anxiety, what practices they used to process their climate emotions prior to the study and what they intend to use in future, how the sessions supported emotional processing and the other outcomes to mental wellbeing participants garnered, and theorizations about climate resilient futures and hope. The Discussion Chapter 5 synthesizes the findings to speak directly to the two research questions, presenting additional insights, and methodological reflections. This centres around the importance of accessible spaces in which young people feel safe to experience, express and validate a wide palette of climate and ecological emotions. Participants' future visions showcase real-world examples of resilient human and more-than human systems from which they derive hope and a responsibility to protect. Lastly the Conclusion summarizes the entire thesis and elaborates on methodological considerations, limitations, and contributions to research and practice regarding youth and climate emotions.



## Chapter Two: Critical Context

This chapter situates this study within climate emotions scholarship to map the gap this research strives to fill. It begins with a broad overview of the study of climate emotions, explores how and why young people are disproportionately impacted, and concludes with a discussion of diverse approaches for addressing climate emotions advanced by scholars, mental health practitioners and climate activists, among others. While the discussion of approaches is not an exhaustive list, it seeks to highlight the strengths and weaknesses of a variety of popular approaches that have been tested in academia and/or grassroots movements. The chapter that follows demonstrates how the artmaking and dialogue sessions developed for the purpose of this study draw upon these approaches and scholarship. Here I argue that there is a gap both in scholarship and practice regarding engaging youth in qualitative knowledge generation about their lived experiences of climate emotions and addressing them through the arts.

### 2.1 Overview of the Study of Climate Emotions

Depending on discipline within the social sciences, there are various ways of defining and analysing emotions. In his book *Earth Emotions*, eco-philosopher Glenn Albrecht tracks the term back to its origins in the Latin *movēre*, “to move,” and *ēmōvēre*, “to agitate, disturb”. This leads him to define emotions as that which moves us or affects us (Albrecht, 2019, 1). Movement theorists Goodwin, Jasper and Polletta view emotion as an aspect of all social action and social relations, shaped by social expectations as much as they are emanations from individual personalities (2001, 9). In a similar vein, emotional geographer Kathryn Ryan (2016) understands emotion as “relationally constituted between and among people and environments” (6). Emotion is “produced within and between relational bodies triggered by external events yet

experienced both psychologically and physiologically” (2016, 6). As a political ecologist, what I find useful in these definitions is how they collectively point to the political and social implications of emotions. Relationships (to humans and the more-than-human) are not only affected by emotions but also themselves initiate and moderate emotional states. Goodwin, Jasper and Polletta suggest two common ways in which individuals view emotions: as nouns and as adverbs. I agree with the authors’ suggestion that looking at emotions as adverbs “a style or taste or tone, a quality of an action or identity” is more nuanced and healthier than conceptualizing them as fixed and distinct entities (2001, 14/12). Understanding emotions as transient, embodied, performative and relational directs our attention to how they influence thoughts, actions and relationships which have material consequences, particularly when it comes to climate change.

This background informs my conceptualization of climate emotions as emotional states experienced within and between individuals arising from interactions and relationships with people, other species and environments related to climate change and associated physical, social and psychological impacts. If we conceive of emotions as adverbs, we can then categorize ecological and climate emotions as two sub-genres of emotions. Provided that anthropogenic climate change is a relatively new phenomena in the larger scheme of human history, these types of emotions are not experienced as universally or on such a primal level as feelings like love and anger. They rather nuance those emotions, like an adjective nuances a verb. While climate and ecological emotions do include the full spectrum of human emotional states that can be experienced in relation to the environment and climate change, this study primarily focuses on those emotions which individuals experience as negative or unpleasant as those are of greatest concern from a mental health perspective. I do ask how arts-based approaches might generate

hope (a positive climate emotion), but that is secondary to how they support participants to process climate anxiety and related (negative) eco-emotions.

Scholars often use the umbrella term climate distress to refer to these ‘negative’ climate emotions as it encompasses “various kinds of distress that are significantly shaped by the climate crisis” (Pihkala, 2024, 25). The table below provides some suggested descriptions for some of the most used English sub-terms for climate distress:

Term	Suggested description
Eco-anxiety	Anxiety-related feelings that are significantly shaped by the ecological crisis
Climate anxiety	Anxiety-related feelings that are significantly shaped by the climate crisis
Eco-fear (ecological fear)	When compared to eco-anxiety, a more explicit expectation of imminent harm because of ecological damage and threats
Climate fear	When compared to climate anxiety, a more explicit expectation of imminent harm because of climate change
Ecological worry	Various manifestations of worry that are related to the condition of ecological systems and habitats
Climate worry	Various manifestations of worry that are related to the climate crisis
Ecological distress	Various kinds of distress that are significantly shaped by the ecological crisis
Climate distress	Various kinds of distress that are significantly shaped by the climate crisis
Ecological grief	Grief because of the ecological crisis
Climate grief	Grief because of the climate crisis
Climate sadness	Various kinds of sadness because of the climate crisis
Solastalgia	Place-related feelings of sadness and longing because of damage to the environment (cf. nostalgia)

*Figure 2 Suggestions of nuanced descriptions of some terms related to climate distress (Pihkala, 2023, 25)*

One reason to use the term climate distress instead of negative climate emotions is because even though the experience of them is usually unpleasant, they are not inherently ‘negative’ emotions in terms of their impact. They can in fact lead to positive outcomes both individually and collectively, as I will explore throughout this thesis. As Table 2.1 displays, sub-terms such as climate anxiety, solastalgia, and ecological grief attempt to capture greater specificity of emotional experience. In this study I define climate anxiety as past and/or current feelings of worry, distress, despair and/or fear associated with climate change impacts. This definition highlights that climate anxiety can vary temporally and arise from direct and indirect

exposure to climate impacts. For some, climate anxiety arises from firsthand experiences of climate change impacts, while others' anxiety stems from their knowledge of climate impacts elsewhere and predicted future impacts (Ojala et al., 2021). For many people who live in the Global North and occupy positions of privilege which insulate them from direct impacts, climate change can still feel very abstract and psychologically distant (Spence et al., 2012). Yet people in those positions can also feel disturbed or sense that things 'aren't quite right' without consciously associating them with the climate crisis or changes in their natural environment. Goodwin, Jasper and Polletta contend that "certain emotions strongly depend on our understanding of events around us, even when that understanding is immediate and intuitive rather than elaborately processed" (2001, 13). Albrecht (2019) further argues that as human beings, as entities of the earth, our bodies are attuned to the psychoterratic forces of the universe, even if we do not recognize this intellectually. When the earth is hurting, we feel it on a very primal level, which is largely subconscious. Thus, the emotional weight of world events, particularly those of an ecological and/or climactic nature, often hits us before our conscious mind has a chance to make sense of them.

As briefly described in the introduction, there is a wide range of psychological, physical and social impacts of climate anxiety and other forms of climate distress that have short to long term effects on individuals and communities around the world. Here I focus primarily on impacts observed in my study population, youth residing on Turtle Island (so-called North America), with the understanding that they may be akin to those experienced by people in other age categories and localities. Adolescence and young adulthood are known to be developmental periods in which people are at higher risk of facing mental health challenges (Stephenson, 2023). However, youth today between the ages of 15 – 24 in Canada have higher rates of depression, mood

disorders, and anxiety than that age category had a decade ago, with double and triple the rates for certain disorders (Stephenson, 2023). While these high rates are concerning in of themselves, climate change impacts are additive and multipliers of existing mental health difficulties. Climate distress has been shown to amplify mental health vulnerabilities such as addiction, mood disorders, past trauma and other psychiatric disorders (Allured & Easterlin, 2024, 191).

Many young people have developed complex understandings of how previous generations benefitted from unjust systems built on colonization, white supremacy, patriarchy and unfair resources distribution that are at the root of current intersecting crises (Allured & Easterlin, 2024, 193). Due to this, many youth rightfully harbour a great deal of anger and rage towards governments and corporations that have profited off obstructing climate action and violating human rights (particularly those of Indigenous peoples) for decades. This generation of young people has also lived through the COVID-19 pandemic and were impacted to varying degrees by mandatory lockdowns, online schooling, scapegoating of youth as ‘superspreaders’, and physical health impacts to themselves and loved ones, including deaths of elders. Living through the intersecting global crises of climate and COVID-19, as well as ongoing racial injustice, colonialism, and other forms of political turmoil, can be understood as “overlapping traumas that may foster strong feelings of danger, insecurity and a heightened need for protection” among youth (UBC Climate Hub, 2022, 14). In their professional practice, clinicians Elizabeth Allured and Barbara Easterlin have observed that these compounding factors can contribute to an “overall feeling of lost control, fatalism, lowered agency, and hopelessness” among their young clients, “sometimes giving rise to lower motivation to pursue interests and education” (2024, 193). Climate distress can also manifest in physical symptoms, including

changes in young people's sleep patterns, appetite and ability to concentrate, and headaches, stomach-aches, and muscle aches (American Psychiatric Association, 2022).

While climate emotions scholars and therapists alike wish for people to grasp the severity and scope of climate distress, they also warn against pathologizing these very natural responses. Feelings like climate anxiety and grief are not innately unhealthy and may signify a valid response to a legitimate threat, serving an adaptive purpose by alerting people to danger (UBC Climate Hub, 2022; Kurth & Pihkala, 2022). Some academics and practitioners have suggested that adding terms such as eco-anxiety to the Diagnostic and Statistical Manual of Mental Disorders might help these conditions gain credibility, aid in diagnosis, and ultimately ensure people be treated properly. However, many other health professionals believe that is it imperative that it remains excluded, as calling climate or eco-anxiety a mental disorder would further pathologize this moral emotion (Wray, 2022, 21). As Pihkala points out, "for a young person feeling climate distress, it is quite a different experience to be told by their community that they are manifesting a much-needed awareness than to be told that they are experiencing mental health problems" (2024, 30). Thus, it's crucial to establish to young people (and their families/caregivers) that not only is climate anxiety a normal and healthy response to awareness of the climate crisis (Ray, 2020b), it also serves the vital function of pointing out what is deeply wrong in society, and nudging us toward change (Wray, 2022, 34). The concern however is if over time climate anxiety becomes chronically paralyzing rather than mobilizing, which can happen without treatment or if the only ones offered further individualize the problem.

Given this context, my research and practice seek to actively combat the pathologization of climate anxiety and related eco-emotions. Pihkala has suggested that although "there is a need for unifying concepts that enable public and professional discussion about phenomena, various

people should have the right to develop and use concepts as they themselves deem suitable for their experiences” (2024, 31). He argues that the risk of pathologization can be reduced by using broader and more exact definitions and making space for a plurality of cultural and emotional meanings (23, 35). As presented in the introduction, I chose climate anxiety for its accessibility and wide recognition. However, the artmaking and dialogue sessions were designed in such a way for participants to interact with the concept of climate anxiety in a manner that felt authentic to their personal experience, and to express that through the artwork. This resulted in participant-specific definitions of climate anxiety and related eco-emotions to emerge in various parts of the data, as will be discussed in the thematic summary of findings.

## **2.2 Mapping the Gap in Literature**

The climate emotions field is quite young in comparison to other social science sub-fields relating to climate change. For many years social scientists have been primarily concerned with the management of dissonant ideas and beliefs regarding climate change (i.e. environmental behaviours and political will for climate action), and less on the management of negative affective experiences (Moser, 2014, 345). For example, most of the research on youth and climate change concerns their engagement in environmental education and climate action, usually with the goal of increasing the numbers of youth and/or their degree of involvement. Klassen (2022) elaborates that although there is more research on the experience of emotions in youth climate activism than other social movements youth are engaging in, it remains limited (36, 33). For over a decade climate scholars have been identifying the need for improved understanding of climate change as an existential risk and threat to identity and self, and identifying the coping mechanisms people employ (Moser, 2014, 351). While a range of social

scientists, including sociologists, environmental psychologists, political scientists, geographers, and humanities scholars, among others, have made significant strides, as seen in the growing recognition of climate emotions as a distinct field of study, there are many gaps that remain. The following explores identified gaps in the climate emotions scholarship pertaining to research questions employed, methods used, selection of participants, and how participants are engaged in knowledge production and theorizing.

In terms of the research questions employed in climate emotions studies, the majority of research conducted thus far has been focused on a) defining and typologizing climate emotions and b) determining the extent of their impact and reach. We might also understand this as problem-oriented scholarship, rather than solution-oriented scholarship that many youth, mental health practitioners, educators and caregivers have been calling for. Some of the leaders in this first area of research include Canadian Ashlee Cunsolo who popularized ecological grief as a concept, Finn Panu Pihkala who created the “Process Model of Eco-Anxiety”, and Australian Glenn Albrecht who coined the term solastalgia. To determine extent of impact and reach, a number of scholars in North America and abroad have been working to establish large scale pictures of how many young people are impacted by climate distress in a particular location and identify differences between sub-demographics such as geographical location, gender, and level of education (Hickman et al., 2020; Galway & Field, 2023; Aylward et al., 2024; Closson et al., 2022). To do this they mostly employ quantitative methods, such as Likert-scale type questionnaires in which youth rank their degree of worry, anxiety, concern, and so on regarding climate change, or to what degree they agree with a series of statements related to climate emotions. Helldén et al. (2021) noted that the majority of child and youth health and climate change literature from 2016 – 2021 was quantitative, indicating a lack of qualitative research

exploring the ways in which children and youth experience and respond to emotional and mental dimensions of climate change. While these methods have been effective at establishing the extent and severity of the problem and some demographic variations, they do not allow study participants to develop/share their own vocabularies to describe their climate emotions or contribute to theory.

Turning to qualitative studies, the majority do not engage youth, or if so, use traditional methods such as interviews which have a limited capacity to capture the nuance of these emotional experiences. Not all interview participants feel comfortable expressing themselves verbally, especially when it comes to complicated and vulnerable matters related to climate emotions. Furthermore, due to the subconscious and intangible nature of climate emotions for many people, creative techniques are needed to access and articulate them. Qualitative research exploring young people's lived experiences of climate emotions across diverse places is underrepresented, especially those which interrogate climate emotions through a critical lens (Klassen, 2022, 3, 34). In Soutar and Wand's (2022) systematic review of qualitative literature on anxiety responses to climate change they identified relatively few studies, with limited geographical diversity amongst the populations studied. Within the studies identified, the majority engaged adult participants in semi-structured individual or focus group interviews, and a handful incorporated ethnography and participant observation (Soutar & Wand, 2022).

Qualitative research is thus needed that enables youth from a variety of backgrounds to share more fulsome and nuanced accounts of their climate distress and to contribute to theory and the creation of interventions. As Zurba et al., (2024) conclude, the knowledge gap regarding the expression and processing of emotions continues to exist in the literature at the cross-section of youth and environment. Furthermore, most of the research conducted on how climate

emotions specifically impact young people has been done about youth, rather than with or by them, with few exceptions (Law, 2022; Barraclough, 2022). Scholars have called for more innovative and collaborative methodologies and methods in climate emotions research particularly those “which work to build trust and create opportunities in which young people safe to explore vulnerable emotions, feel listened to, and feel heard” (Klassen, 2022, 110). This includes the use of Participatory Action Research, Community-Based Research and critical approaches to directly involve young people in knowledge generation. Conducting research in ways that acknowledge “young people as experts on their own experiences, is important to uncovering unseen and unheard perspectives on climate emotions and climate action” (110). While studies exist that more meaningfully engage youth, there is a glaring lack of those which explicitly employ a Youth Participatory Action Research (YPAR) approach.

Similarly, there has been limited study of how arts-based interventions might be applied to climate emotions, with even fewer studies focused on youth (Gelderman, 2021; Barraclough, 2022; Zurba et al., 2024). The studies that do exist at this intersection centre on climate grief (as opposed to climate anxiety), and the artwork, poetry and narrative writing produced convey predominantly apocalyptic and negative imagery (Barraclough, 2022). While the process of creating images and written work around these themes may be cathartic for the individuals themselves, experts argue that such pieces are less likely to motivate viewers/readers to take action on climate change and environmental issues, instead reinforcing feelings of despair and hopelessness (Cascone, 2019; Doll & Wright, 2019). Students in Quebec and Florida have also explored the intersections of art therapy, eco-grief and environmental action through literature reviews and interviews with art therapists, but none involving youth (Scheirich, 2020; Nelson, 2020).

The final gap concerns the limited geographical and racial diversity of those engaged in climate emotions studies. In their review Ojala et al. (2021) found that “important subgroups of people who may be more vulnerable to climate change have not been included as specific and in-depth populations of analysis” including “people living in ecologically sensitive areas; resource-dependent populations such as farmers, fishers, and many Indigenous Peoples; people with pre-existing health conditions and stressors; and people with limited resources to respond to change” such as young people (14). Most research on climate distress has been concentrated in the Global North in countries like the US, Canada, Sweden, Finland, and Britain. While there are more studies now originating from Global South countries, limited research with BIPOC participants in the Global North have led many to critique climate anxiety as being an “overwhelmingly white phenomenon” (Ray, 2021). There are even fewer studies which explore BIPOC youth and children’s lived experiences of climate emotions (Patel et al., 2021). This has led Ojala et al., and other scholars to call for more in-depth qualitative case studies with diverse populations to better understand the “the ways in which geographic location, systems of power and privilege, and systemic racism and marginalization intersect with mental and emotional outcomes” (2021, 21). In the Canadian context, this is especially relevant seeing as Indigenous, Black and People of Colour are on the frontlines of climate change and are over-represented in communities located near resource extraction projects, hazardous waste sites, garbage dumps, and polluted areas (Waldron, 2021).

The above gaps in qualitative youth-led research involving those impacted by climate change reduce social movements, mental health practitioners and academics’ abilities to develop appropriate, accessible and proactive supports for young people struggling with climate distress. As Zurba et al. (2024) argue in their photovoice study with youth from five provinces across

Canada, “understanding how youth express and process such difficult emotions is crucial for contributing to health and educational interventions and community spaces that support people in discussing, visualizing, and processing feelings” (2). In their narrative review of studies concerning negative climate and eco-emotions Ojala et al. (2021) found there is a narrow understanding of what types of supports are most appropriate and effective in responding to these emotions. I have found in my literature review that the default tends to involve prescribing young people to engage in climate action and/or seek a mental health professional to address their climate anxiety. As I will explore below in my overview of approaches to addressing climate emotions, climate action and therapy have their strengths and weaknesses, and there are several alternatives which might be more effective depending on the individual’s needs. Ojala et al. thus call for more “intervention studies about how to best promote constructive coping and identify locally appropriate and culturally relevant mental health supports” (24). Moser similarly identified that more information is required on “what forums and forms of engagement may be needed, accepted, or appropriate in different cultural contexts to safely address these emotional experiences” (2014, 351).

With the understanding that youth are not a monolith, and there is much more research needed on the unique experiences of marginalized youth including BIPOC but also LGBTQ2S+, neurodivergent, and disabled youth, one-size fits all interventions are neither effective nor appropriate. For example, Britt Wray suggests that “front-line communities may be better served in group therapy in community centres, or in one-one-one therapy at low cost” than other options due to their heightened exposure to climate impacts and systemic violence (2022, 116). In Bob Doppelt’s book *Transformative Resilience*, he identified that the emphasis in addressing negative personal mental health and psycho-social-spiritual impacts of climate disruption has been on

better post-disaster mental health treatment (2017, 6). Certainly, communities grappling with natural disasters and severe climate impacts require support, especially to address Post-Traumatic Stress Disorder and rebuild community bonds. However, there is also an underattended need to create proactive interventions to build emotional resilience and mental health tools among youth and their communities before disasters hit.

Given the generational differences in terms of contributions and understandings of the climate crisis, having youth-dedicated spaces is essential. Peer support can be hugely helpful for young people (Mental Health and Climate Change Alliance, n.d.), but often youth organizing spaces do not provide opportunities to hold space for emotions which might be perceived as paralyzing (i.e. anxiety, fear and grief), usually only encouraging expression of emotions thought to be mobilizing, such as anger. The lack of consultation of youth in the development, monitoring and evaluation of mental health interventions severely undermines the likelihood of their success. This reinforces the need for climate emotions scholarship that employs research questions, methods and recruitment strategies that engage diverse youth in innovative ways to share their lived experiences, co-theorize about climate emotions, and ultimately develop and evaluate supports.

### **2.3 Approaches to Addressing Climate Emotions**

Having surveyed the field of climate emotions and highlighted some research needs, I now turn to a general overview of common approaches to addressing climate distress. This draws from peer-reviewed research from psychology, psychotherapy and environmental humanities as well as grey literature from individuals and organizations concerned with the nexus of climate change and mental wellbeing. Many climate activists, environmental nonprofits, mental health

clinicians, and mindfulness practitioners have published tools and guides, and facilitated events and programs aimed at supporting people with a variety of emotional responses to intersecting environmental and social justice issues. The following overview aims to be broad rather than comprehensive, providing brief summaries and assessing methodological strengths and weaknesses of common approaches, but not going into detail about the techniques and debates associated with each. The purpose is to situate the arts-based approach that I have developed throughout my study within the field of mental health interventions for climate emotions, as I will use the following chapters to show its unique contribution. It also helps contextualize Themes 1 and 4 of the Findings Chapter, as those focus on the practices participants used prior to the study, and those they will use in future, to process their climate emotions.

### ***2.3.1 Therapy***

Talk therapy and counselling are common treatments for mental health challenges, and many people experiencing forms of climate distress have sought support from their current therapists and/or started a therapeutic relationship to discuss it (CPA-NA, n.d.). Generally, conventional talk therapy aims to help a client better understand their emotions, identify roadblocks and triggers, process previous traumatic experiences, and develop healthy habits (Todd, 2021). Climate-informed or climate-aware therapy has emerged in recent years as therapists have witnessed how the climate crisis is impacting their patients and have founded capacity-building organizations such as the Climate Psychology Alliance of North America. CPA-NA defines a climate-aware therapist “as a professionally trained psychotherapist who recognizes that the climate crisis is both a global threat to all life on Earth and a deeply personal threat to the mental and physical well-being...of each individual, family, and community on the planet” (n.d.). This wider lens on the source of emotional stressors influences what prescriptions

and recommendations a therapist, psychiatrist or counsellor might provide to a client. For example, Dooley et al.'s (2021) cross-disciplinary climate-informed therapeutic approach for young people includes seven core components to promote emotional resilience: acknowledging and validating feelings, emotional coping tools, social connection, connecting with nature, climate action, self-care, and climate justice awareness (47).

When it comes to emotional coping tools, the therapy profession has traditionally focused on two categories: problem-focused and emotion-focused. The goal of emotion-focused coping is to 'get rid of' or lessen negative emotions evoked by a stressor, using strategies like distancing and denial (Ojala & Chen, 2024, 270). For example, in Cognitive Behavioural Therapy the therapist aids the client in externalizing unhelpful feeling states, separating them from their experience of self to examine and potentially resolve them (Allured & Easterlin, 2024, 197). Emotion-focused coping strategies are the most common type employed by adolescents and young adults (Ojala, 2012). Problem-focused coping on the other hand seeks to indirectly regulate negative emotions through attempting to solve the problem that is the source of distress (Ojala & Chen, 2024, 270). This can include searching for information, pursuing studies and/or employment in an area related to climate change, and engaging in climate activism among other actions. However, some studies have found higher levels of climate-related worry among pre-teens and adolescents who used problem-focused coping (Ojala, 2012; Soutar & Wand, 2022). I will elaborate on potential explanations for this in the next subsection regarding the role of climate action.

Art therapy is adapted from traditional forms of psychotherapy and can provide unique additional or alternative benefits for many struggling with climate distress. Through artmaking, discussions, and reflections on the artwork individuals are supported to problem-solve, develop

insights and self-awareness, improve self-esteem, manage stress and enhance interpersonal skills (American Art Therapy Association, 2017). Eco-art therapy encourages clients to consider environmental concepts in their artmaking and reflections, often using natural materials and/or taking place in an outdoor environment, either one-on-one with a therapist or as a group (Speert, 2016). Despite art therapy and eco art therapy being very useful interventions, they tend to be even more difficult to access than conventional talk therapy and counselling, simply due to lower availability of art therapists and sometimes higher cost associated (Canadian Art Therapy Association, n.d.).

### ***2.3.2 Engaging in Climate Action***

Many young people (and those of all ages) seek to address their negative or unpleasant climate emotions by engaging in climate action or environmental activism and advocacy. Many therapists would categorize this as a form of problem-focused coping, as the actions people engage in seek to address the source of the emotional stress, the climate crisis (Ojala & Chen, 2024). In addition to working towards climate solutions, many youth gravitate to activism to gain an enhanced sense of agency and satisfaction, and to build community with others who care about the same issues. Activism therefore has the potential to improve youth mental health by reducing feelings of helplessness, increasing sense of empowerment and facilitating the building of social capital (Ballard & Ozer, 2016). This sense of empowerment and agency in terms of one's sociopolitical environment is positively correlated with other wellbeing indicators such as self-esteem and emotional resilience which buffer against other long-term mental health issues (Ojala & Chen, 2024, 275).

Overall, the degree to which engaging in activism contributes positively to one's emotional wellbeing is deeply contextual and variable to the individual's experiences and

positionality in society, depending on such factors as pre-existing mental health, access to a support network, organizational culture, etc. Youth climate activists from various provinces have reported “mixed impacts of participation in activism on their ability to process their emotions, while others felt that such experiences are powerful, inspirational, and ...cathartic” (Zurba et al., 2024, 14). Engaging in activism as a form of problem-focused coping isn’t very effective when the problem is as immense and complicated as the climate crisis. This leads to many activists internalizing blame: “if you are the one who has control over the climate crisis, then it is also your fault if the crisis accelerates... and the crisis is always accelerating” (Gelderman, 2022, 9). Wray (2022) similarly cautions against prescribing action as a tool to cope with climate anxiety as it can often be treated as a shortcut: moving past the pain straight to action can be an avoidance tactic that delays the grieving and healing process that is needed (110). This suggests that an intentional and holistic approach is needed when engaging in climate action, rather than a one-size-fits all prescription.

### ***2.3.3 Mindfulness Practices***

Many people who struggle with various forms of climate distress maintain a meditation practice or use other mindfulness techniques to support their mental wellbeing, individually and/or in conjunction with a therapeutic arrangement, spiritual/religious tradition, and/or community of practice. Mindfulness has come to describe a whole range of activities done with contemplation or directed attention such as yoga, walking in nature, gratitude journalling, and artmaking, among others. Recognized leader Jon Kabat-Zinn defines mindfulness as the “awareness that emerges through paying attention on purpose, in the present moment, and non-judgmentally to the unfolding of experience moment by moment” (2003, 145). Mindfulness can also be understood as a form of metacognition or ‘thinking about our own thinking’, which can

be helpful in recognizing and managing internal dialogue and emotional triggers, and critically assessing and reframing climate challenges to solutions-based thinking (UBC Climate Hub, 2022, 15). As Sarah Jaquette Ray (2020a) writes:

...the ability to stand back and observe our emotions, identify core beliefs from which emotions emerge, and disrupt the limbic fight-or-flight response is the key to dealing with emotions. Paradoxically, closely observing our emotions actually makes us behave more rationally. And that's what the planet needs from us. (1)

The primary critique of mindfulness approaches is that the forms that have been popularized in the West are disconnected from their Buddhist origins, and subsequent depoliticization and commodification has reduced mindfulness to solely improving individuals' emotional states, rather than a community's or society's overall wellbeing (Purser, 2019). Mindfulness practices do however figure prominently in a range of events and programs to support collectives through intersecting crises (Macy & Brown, 1998; Gelderman, 2021).

#### ***2.3.4 Other Events and Programs***

Other approaches to addressing climate emotions include facilitated group processes (outside of clinical arrangements) and other emotional/personal development programs. These have the primary goal of holding space for people to vocalize their concerns about climate change with likeminded others in a supportive space, and often include collective grieving about ecological loss and climate change. As briefly mentioned in the introduction, climate cafes and climate circles have emerged as informal and loosely facilitated group meetings where people can share their thoughts and feelings about climate change. They tend to be free or low-cost drop-in spaces which have the advantage of accessibility but often the challenge of lack of continuity in the group given participants are not required to attend multiple sessions (Calabria &

Marks, 2024). Unlike in therapy or counselling, participants in these spaces share freely without expecting a response, and other participants are discouraged from providing advice or attempting to diagnose or ‘treat’ each other. These are not problem-solving spaces, rather “relational and permission-giving spaces that help people work through their fears and frustrations together” (Wray, 2022, 117). Notably, some organizations, such as One Resilient Earth, have begun to offer youth-only cafes and circles, recognizing the need for peer support within this age group.

There are multiple short-term programs which integrate mindfulness, dialogue, art therapy and/or other methods to address ecological emotions. These can be in-person and virtual, from 1 – 2 days to 10 days consecutively or spread out over multiple weeks. Notable examples include the *Work That Reconnects* created by eco-philosopher Joanna Macy, and Good Grief Network’s *10 Step Grief Program for a Chaotic Climate* (Macy & Brown, 1998; Dietz, 2024). They generally aim to convene participants with shared concerns about climate change and the overall present condition of the world and guide them through collective processes in which they can express and move through difficult emotions and learn emotional resilience techniques. The *Work That Reconnects* also has virtual and local chapters, some of which are quite active, offering free online community resources. As with art therapy, cost and availability might be prohibitive to many people, although sliding scale pricing is sometimes offered. While these types of programs can be quite effective, they may sometimes be short-term deep dives into eco and climate emotions with varying degrees of support available for participants post-program completion.

### ***2.3.5 Summary of Literature Review***

To conclude, this literature review encompasses an overview of climate emotions, identifies key gaps in the literature, and introduces common approaches to addressing climate

emotions. Ecological and climate emotions broadly refer to emotional states associated with knowledge and/or experience of climate change, environmental degradation, and ecological loss, including past, present and predicted future impacts. While climate and eco-emotions include those which we might experience as pleasant and unpleasant, from climate hope to eco-anger, the central focus of this research is on climate anxiety and related forms of climate distress. These can have a range of short, medium and long-term ramifications on physical and mental health, including impacts to daily functioning, future planning, and pre-existing mental health challenges. Key vulnerable populations include Indigenous peoples, those whose livelihoods are tied closely to the environment, young people, and frontline communities. Young people are considered more vulnerable due to their developmental state which puts them at higher risk for mental health challenges, they typically have more limited resources (economic, political etc.) to respond, and will have a greater portion of their lifetime impacted by worsening climate change.

The primary gaps that persist in climate emotions scholarship include a narrow scope of research questions, limited methods employed, low geographical and racial diversity, and insufficient engagement of youth in co-theorization. Common approaches to addressing forms of climate distress include various forms of therapy, climate action/activism, mindfulness practices, and programs and events specifically geared towards collective grieving and peer support. This chapter situates my research both in terms of the gap in climate emotions literature, and in approaches to addressing climate emotions among clinicians, activists and other mental health practitioners. The following methodology chapter elaborates on the aspects which I adapted or otherwise considered when developing my artmaking and dialogue sessions which were my primary form of data collection.

### **Chapter Three: Methodology**

This chapter introduces the guiding principles of this research, including epistemological frameworks, the rationale for selection of research methodologies, data collection methods, and analytical approach. Data collection involved designing and facilitating artmaking and dialogue sessions, conducting participant observation and one-on-one interviews, and collecting participant-produced artwork and artist statements.

#### **3.1 Selection of Research Methods and Frameworks**

My research sought to answer these two questions:

1. Can visual artmaking and dialoguing help young people process climate anxiety and related eco-emotions? If so, how?
2. In what ways might this arts-based approach help youth generate active hope, if at all?

I began by exploring methods that bridge qualitative inquiry with arts-based approaches ultimately deciding to pursue visual artmaking and dialogue. Visual art is one of many forms used in Arts-based Research and includes painting, drawing, collage, installation, photography, sculpture, textiles, needle crafts and quilting, among others (Leavy, 2018). I selected it due to the relative familiarity of participants with visual artmaking (compared to other art forms), my comfort with facilitating it, and its ability to communicate complex thoughts, feelings and worldviews. Bohm and Weinberg (2004) conceptualize dialogue as a flow of shared meaning in a group that provides a space from which new understandings can emerge. Dialogue is especially relevant for addressing climate change as it enables learning and conflict-resolution. Bentz and O'Brien posit that it is "through dialogue that people gain an awareness of different norms, values, interests, assumptions, and constructions of reality" necessary for tackling the wicked problems associated with climate change (2019, 4).

Epistemologically and methodologically, I was drawn to Youth Participatory Action Research (YPAR) and Arts-based Research (ABR) frameworks. YPAR builds on Participatory Action Research and Community-based Research traditions to concentrate on youth positionality and empowerment. YPAR projects employ a critical lens that draws attention to inequitable structural distribution of resources, counters deficit views of youth (as either innocent or delinquent), and promotes their subjectivity, agency, questioning and knowledge generation (Wright, 2020, 35-36). One of the defining characteristics of YPAR is that young people themselves are engaged in creating, gathering and analyzing data that connects with their own lived experiences (Deil-Amen et al., 2022, 831). Participation in YPAR means that not only are young people's viewpoints, critiques, and ideas about possible actions respected, but they also change the very methods and directions of research (Tuck & Yang, 2014, 187). Guishard and Tuck (2014) further emphasize the difference between thinking with youth and simply paying attention to youth voices. While the latter has been the norm in research, 'thinking with youth' is a stance of collaboration that generates new methods and theory (185). This is particularly crucial given the abundance of research about climate emotions that positions youth as disproportionately impacted but does not necessarily provide them an opportunity to voice their perspectives, understandings, and theorization to the same degree as the researcher. When youth are involved as co-theorizers and co-evaluators of programs and policies, they make them more effective, culturally appropriate, and sustainable, and youth get the opportunity to build leadership and communication skills and advocate on behalf of their communities (Kennedy et al., 2020; Wright, 2020).

ABR is a methodological genre that encompasses a wide range of tools and practices which adapt the tenets of the creative arts to address research questions in holistic ways, melding

theory and practice (Chilton & Leavy, 2020, 4). ABR is especially relevant for qualitative research about social phenomena as it can provide insight into the inner world of individuals and groups by making visible what is difficult to ‘voice’ with words alone (Clover, 2018, 14). Visual art can be used in any phase of the research process:

1. Developing the research focus: i.e. arts-based or informed enquiry to assess knowledge gaps and community needs and develop research questions.
2. Data collection: i.e. participants create artwork, provide thoughts on artwork, attend an exhibit, interact with artists etc.
3. Data analysis: i.e. analyzing art directly, using art as a tool to synthesize, compare and visually conceptualize data.
4. Knowledge dissemination, translation and mobilization: i.e. using art to communicate research findings, get community feedback, as an advocacy tool etc.

ABR and YPAR are an excellent fit for many reasons, not least how they mutually reinforce creativity, democratization of knowledge, and more equitable relationships between researchers and participants. Ginwright (2008) and Wright (2020) discuss the ability of YPAR to incorporate the arts in such a way that engages youth both as knowledge producers and agents of community change through collective re-imagining, critical inquiry and problem-solving (Wright, 2020, 36). Pairing deliberative discussions with forms of creative expression can contribute to the deconstruction of people’s taken-for-granted frames of reference by exposing them to different perspectives and opinions (Bentz, 2020, 1606). Bentz found in her study with high school students that combining group dialogues with artistic expression of learning and lived experiences enabled youth “to see climate change differently as well as their own role in addressing it” (2020, 1606). Art and dialogue therefore could be a vehicle through which young

people translate their systemic analysis into collective action “aiming to engage, address and possibly help transform social [and environmental] injustices” (Wright, 2020, 37). I present the following overarching principles to further elaborate on how the epistemological and methodological frameworks align with key tenets of my approach.

### ***3.1.1 Overarching Principles***

#### ***3.1.1.1 Youth Lived Experience as Expertise***

This first principle is anchored in my deeply held commitment to centring youth voices and lived expertise. It flows from the conviction that youth critique and contributions to theory are imperative to research generally, and in scholarship on youth experiences of climate emotions specifically. As a young researcher I feel aligned with Youth Participatory Action Research (YPAR), critical youth studies, and youth resistance research approaches because they share the fundamental principles that youth are complex persons with perspectives worth sharing, and that they are the experts in their own lives (Tuck & Yang, 2014). These approaches are distinct from other research traditions due to how they position youth lived experience as its own form of expertise that is equally if not more valuable than other forms of data given its ability to add nuance and depth to other methods. As a young person who has navigated academic and policy-making spaces, there is often a pressure to back up lived experiences with data from peer-reviewed studies, census data and/or other ‘reputable sources’ in order to be taken seriously by decision-makers, funders and universities (Kroft, 2023). When it comes to climate conversations in media (and often in academia) youth are usually depicted as either victims or heroes, a false dichotomy that does not do justice to the diversity of youth lived experiences and responses to climate change.

### **3.1.1.2 Art, Emotions and Embodied Knowledge are Valuable Sources of Data**

Secondly, taking an arts-based approach to this research was instrumental to validate multiple underestimated/undervalued ways of knowing: artistic, emotional and embodied. As an artist I have been fascinated about the ways in which artmaking contributes to the creation and transmission of meaning that is highly intersubjective, intimate and layered. Seeing in my personal and professional life the capacity for artwork to teach, evoke emotion, and move people to action motivated me to utilize arts-based methods in my research. I wanted to create a study in which youth lived expertise was valued equally to so-called expert knowledge, and emotions were valued as legitimate sources of data (and not ruled out as irrational or irrelevant). Historically, many disciplines within both the natural and social sciences have upheld the dichotomy of cognition versus emotion. This dichotomy is false for many reasons, among them being that “cognitions typically come bundled with emotions and are meaningful or powerful to people for precisely that reason” (Goodwin, Jasper, & Polletta, 2001, 15).

Postcolonial scholars speak to how arts-based methods offer avenues for overcoming this dualistic partition, the ‘split between mind and body, nature and culture’ introduced by Western (colonial) thought, and instead embracing ‘a horizontal strategy of openness to dialogue among different epistemic positions’ (Mbembe, 2016, 37, 42). Particularly when the maker of the artwork is also the researcher, ABR is credited with enabling embodied understandings (Archibald, 2022). Using a “larger spectrum of creative intelligence and communications” (McNiff, 1998, 30) enables the accessing of subjective and intersubjective states, unlocking embodied, emotional, aesthetic, relational, spiritual and intuitive understandings (Chilton & Leavy, 2020, 607). These in turn expand the scope of research generation, interpretation, and

representations to “present findings that can feel more accurate, vibrant, and authentic” than conventional presentations of data (Chilton & Leavy, 2020, 607).

### ***3.1.2. Application of Youth Participatory Action Research and Arts-Based Research***

With these principles in mind, the following section details how I applied YPAR and ABR in this study. As a YPAR researcher, I sought to engage research participants as peers, collaborators, and co-theorists, and mitigate the power dynamic of researcher/participant by delegating decision-making authority where possible. In the artmaking and dialogue sessions this involved collectively setting group norms for our time together, following participants’ needs/desires in terms of how we transitioned between conversations and activities, and directly engaging them in meaning-making. In the interviews participants joined me as co-evaluators of the artmaking and dialogue sessions, sharing their feedback and recommendations for how to improve them in future. Participants were also asked to what degree they might want to be involved in data analysis and knowledge dissemination and mobilization going forward. In YPAR it is crucial that participants lead the knowledge dissemination stage so that findings are shared in accessible, equitable and actionable ways with those who can benefit the most from them. This often includes leadership and capacity building, mobilizing youth and allies, lobbying policymakers, and other actions aiming to address social/environmental justice issues pertaining to the research. Lastly, participants were actively encouraged to theorize around climate emotions, the role of artmaking and dialogue in climate action, and related topics throughout the dialogues and interviews, and this critical engagement also appeared in artist statements submitted after the sessions. While this theorizing appears throughout Chapter 4: Thematic

Summary of Findings, it is most directly discussed under Theme 4 and the second part of the Discussion Chapter.

In arts-based studies, the distinction is often made between those which focus on *researcher*-produced art (common in approaches like research creation) and *participant*-produced art (i.e. participatory art). This study utilizes both at various stages, however the artwork of the study participants is central to the analysis. Researcher-produced art was crucial in phase 1 (I developed the research questions through my own arts-based inquiry), whereas participant-produced art and artist statements take primacy in phases 2 and 3. It is quite likely that artwork produced by both the researcher and participants will be part of the knowledge dissemination, translation and mobilization (such as a public exhibit). Using Wang et al.'s (2017) classification system for arts-based research, this study would be categorized as 'Art in research', "when art is actively applied by participants and/or artist-researchers as a creative process in one or more phases of a research process studying social and behavioral science phenomena" (15). Within this, my positionality could be classified as artist-researcher as I am both involved in the process of artmaking and guide participants in the artistic process, taking both an insider and outsider perspective at various stages (15). Both are useful for different reasons. Participating in the artmaking enables the researcher to generate knowledge through the artistic process, whereas facilitation provides space for the researcher to both interact with and observe participants (Archibald & Blines, 2021, 2).

ABR brings multiple sources of data and ways of knowing into conversation with each other. Archibald (2022) argues that ABR should provide information which "augments, challenges, extends, or even disputes" that gained through non-arts based quantitative and qualitative methods such as surveys and interviews (170). While it could be argued that the data

most directly relevant to my research questions comes from the interviews and the discussions during the artmaking sessions, participants' artwork and their artist statements are invaluable in communicating the depth of their experience of climate emotions as well as the impact of the sessions on their relationships with said emotions. As Leavy writes from her vast career in Arts-based research (ABR), "the immediacy of art provides viscerally felt sensorial experience, an embodied knowledge that is effective at communicating emotional aspects of social life" (Chilton & Leavy, 2020, 607). This suggests that inclusion of participants' artwork and reflections on the artmaking process may generate unique and valuable insights concerning youth lived experiences of climate emotions that interviews and focus groups alone might not. The following section further details how these methodological frameworks were mobilized in relation to this specific research project.

## **3.2 Data Collection**

### ***3.2.1 Session Design***

To design the artmaking and dialogue sessions, I drew from best practices for climate circles, group interactive art therapy, eco-art therapy, and facilitation with youth groups. This included academic and grey literature produced by youth-serving non-profit organizations, art therapists, and mental health practitioners among others (UBC Climate Hub, 2022; Waller, 2015; Clover, 2018; Teoli, 2020; Gelderman, 2022). As outlined in the critical context chapter, climate circles are a form of talking circle that has been growing in popularity among activists, nonprofit organizations and communities alike, aiming to provide informal and accessible spaces to discuss feelings and perspectives about climate change. To familiarize myself with these circles I

attended in-person climate circles hosted by Climate Justice Victoria in July 2022 and April 2023 and completed a virtual Climate Circle Host training offered by the nonprofit organization One Resilient Earth (ORE) in March 2023 (ORE, 2023). I also drew from Gabrielle Gelderman's organizer's guide for facilitating climate grief circles, which includes example group norms and workshop outlines (2022). I identified several techniques from my literature review of group interactive art therapy and eco-art therapy that I wanted to adapt for these sessions, with input from my committee member Dr. Trudi Lynn Smith who is a licensed counsellor and eco-art therapist. This included supporting participants to navigate emotions through artmaking, creating artwork alongside participants, and providing opportunities to reflect on the artwork and verbally process through group discussions, interviews, and authoring artist statements. Using a combination of dialogue, artmaking and individual introspection provides multiple avenues through which participants can process their emotions and thoughts.

As Clover (2018) recommends, I sourced a variety and abundance of artmaking materials and tools for participants to choose from. This included markers, coloured pencils, thin and thick coloured markers, oil/chalk pastels, acrylic/oil/watercolour paints, paper of various sizes, colours and shapes, assorted beads, magazines, scissors, canvasses of various sizes and shapes (circular, rectangular, square), sewing/crochet needles, coloured thread/yarn, washi tape, glue sticks, sponges, paint brushes, palettes, and recycled cardboard. The location was selected with considerations for cost, convenience, accessibility and familiarity for participants, and availability of facilities to clean up supplies and prepare refreshments. I booked a large room on the University of Victoria campus with audio visual equipment, large windows for natural light, multiple tables and a kitchenette attached. West et al. (2022) emphasize the importance of the physical framing of the room, locating it in a space separate from participant's everyday world,

where they can set concerns of daily life aside for the purpose of focused interaction with the research topic through artmaking (158).



*Figure 3 An art supply table at Session 2 (November 26th, 2023)*

The structure of each session included an opening and closing conversation as bookends to the artmaking. Each opening conversation had a specific prompt or check in question, and the closing conversation provided space to further reflect on the artmaking process and/or prompt. The full outlines for all three sessions, including questions, artmaking prompts and timings are in Appendix 4: Artmaking and Dialogue Sessions Outlines. The prompts for all the sessions were designed to provide a sufficient amount of structure to reduce people's anxiety around artmaking (Waller, 2015; West et al., 2022) but not too much that it stifled their creativity or overly influenced their expression. The concept was to bring them on a journey of exploration, starting with climate emotions commonly thought of as negative or unpleasant such as climate anxiety and ecological grief, and ending with climate emotions considered positive or pleasant, such as hope and inspiration. I spaced the three sessions one week apart from each other to give participants time to process the experience, but not so far apart as to lose momentum.

Session #	Date and Time	Theme	Agenda	# of Participants
1	November 19 <sup>th</sup> , 2023 1pm – 3:30pm	Introduction to the study and Artmaking	Introduction to the research project Establishment of community norms Experimenting with visual artmaking tools, techniques and materials	6
2	November 26 <sup>th</sup> , 2023 1pm – 3pm	Climate Anxiety and related eco-emotions	Group discussions and individual artmaking focused on climate anxiety and related eco-emotions	8
3	December 3 <sup>rd</sup> , 2023 1pm – 3:45pm	Climate Resilient and Socially Just Futures	Group discussions, individual artmaking and collaborative artmaking focused on the prompt “what might a climate resilient and socially just future look like?”	8

*Table 1 Session Themes, Dates and Number of Participants*

The goal of the first session was to ease participants into the study by introducing them to each other, explaining the research questions and rationale, and allowing time to freely explore artmaking tools and techniques, before diving into potentially tough conversations about climate emotions. As this was to be the first time this group was to be convened, I designed introduction questions and time for group norm setting before the artmaking portion. In both YPAR and interactive group art therapy, there is a strong emphasis on collectively establishing ground rules with participants, including group norms and confidentiality, right at the onset and reviewing them as needed as the artmaking/study proceeds. For the second session, I crafted the questions to elicit a deeper dive into participants’ experiences of climate anxiety and related eco-emotions. I allotted the same time for artmaking and dialogue as the previous session and participants were invited to further explore their relationship to their climate anxiety and related eco-emotions.

As I was curious about the role of artmaking in cultivating hope, particularly through visioning alternative futures, I designed the final session to have an explicit shift in focus from the previous sessions. The invitation was for participants to take part in an imaginative exercise in the opening circle and artmaking, exploring the question “what might a climate resilient and socially just future look like?”. The final session was also scheduled to be longer, with extra time allotted in the closing circle for debriefing the three sessions as a whole, in addition to the

artmaking process of that day. This included questions about how participants might want to be involved in the research going forward.

I conducted participant observation throughout the three sessions. Kawulich describes how this “enables the researcher to participate in the group activities as desired, yet the main role of the researcher in this stance is to collect data, and the group being studied is aware of the researcher's observation activities” (2005, 9). I developed an observational protocol (Appendix 3) following Cresswell’s (2016) model which includes descriptive and reflective notes.

Descriptive notes tracked meaningful words shared by participants, the energy and relational dynamics in the room during various activities, and what mediums/materials participants were attracted to. Reflective notes were grounded in questions about the major themes arising in the session and musing about the artmaking choices made by participants. Some notes were taken while participants were artmaking, but most notes were taken immediately after the session concluded to prioritize facilitation. I also wrote down general reflections regarding logistics and facilitation, including what worked well, what didn’t land with participants, and what I would do differently in the next session.

Following how Barraclough (2022) created poetry about climate grief alongside her study participants but did not include the data for analysis in the results of the study, I planned to create artwork alongside participants but not analyze the art itself. As such in the Thematic Summary of Findings participants occasionally reference artwork I created which I did not include in the thesis. Creating art alongside participants has been shown to add depth to the group process in a multitude of ways, through increasing trust, supporting building non-hierarchical relationships, and role-modeling emotional vulnerability, courageous exploration, and interaction with materials (Teoli, 2020). In addition to my roles as participant and observer, I held a third role as

facilitator, leading participants through the various activities. This had the goal of fostering a safe, reciprocal space for participants, as I felt having another person acting as a neutral facilitator or observer (not participating in the discussions or artmaking) might make participants feel uncomfortable like they were being analysed under a microscope.

### ***3.2.2 Recruitment***

The target population for recruitment was youth (ages 16 - 25 at the beginning of the study) who self-identify as experiencing climate anxiety and reside in Greater Victoria. For the purpose of this study, ‘experiencing climate anxiety’ refers to an individual's subjective and self-determined identification that they have in the past and/or are currently experiencing feelings of worry, distress, despair and/or fear associated with climate change impacts. This could be in response to tangible impacts that have already occurred, for example the heat dome and atmospheric river of 2021, and/or anticipated future impacts. Within the recruitment materials and consent form I defined emotional processing as ‘reflecting on personal experiences, thoughts and feelings’ which is facilitated by discussions and artmaking in this study. The other requirement was that participants were available to attend a minimum of two artmaking sessions out of the three, with priority given to participants who could commit to attending all three. The invitation to participate was circulated through my University of Victoria email account and my public Instagram account (see Appendix 1 for Recruitment Materials). The recruitment email was sent to a range of youth-led and youth-serving organizations in Victoria, including environmental nonprofit organizations, mental health services, educational institutions and grassroots activist groups as well as University of Victoria students, faculty and staff through the School of Environmental Studies undergraduate and graduate listservs. I posted the invitation to participate

on my public Instagram page and sent it to relevant organizations' Instagram pages and asked them to share on their Stories.

Demographic	Number of Participants (in Brackets)
Age (as of October 2023)	17 (1) 19 (1) 20 (4) 21 (2)
Gender	Gender Non-conforming (1) Cisgender Female (7)
Sexuality	LGBTQ2S+ (5) Straight (3)
Ethnicity/Race	Settler Canadian/European (6) Chinese (1) Mixed Ethnicity (1)
Other Self-Identifications:	Neurodivergent (2) Low income (2)

*Table 2 Participant Demographics*

Snowball sampling was used wherein organizations and potential participants were encouraged to share the study information with other youth they thought might be interested in participating. Interested youth were directed in the email and social media post to fill out a Survey Monkey form to apply to participate. The survey (Appendix 1) introduced the study, asked potential participants whether they met the minimum requirements for participation and why they were interested in participating, collected demographic information, and indicated the dates of the sessions. At the end of the recruitment period, which lasted approximately 10 days, I reviewed the applications to ensure they meet the criteria for participating and there were no power-over relationships that would compromise their participation. Selection happened largely on a first come first serve basis. A total of 14 people filled out the Survey Monkey form, 12 of which met the eligibility criteria and were invited to participate in the study. Of those, 11 responded but due to various circumstances only 8 ultimately filled out the consent form and attended the sessions.



Figure 4 Participant responses to the Survey question "Why are you interested in participating in this study?"

### 3.2.3 Interviews

Semi-structured interviews were conducted to deepen my understanding of participants' experiences of climate emotions and the artmaking and dialogue sessions themselves. They included questions regarding participants' practices to process climate emotions before and after the sessions, how the sessions impacted their mental wellbeing, and thoughts on the role of artmaking and dialogue in addressing climate change. Two questions near the end focused on how they wanted to be involved in research going forward (analysis, mobilization etc.) and any recommendations they had about improving the artmaking sessions themselves. I also included time for participants to ask me questions before, during and after. Please see Appendices 1 and 2 for the intake survey and interview questions.

Before our final artmaking session, I sent out a Survey Monkey to participants to book times for interviews. I also provided the option to fill out a separate Survey Monkey form that

contained the same questions as those posed in the interview in case participants preferred to take their time and fill out responses asynchronously. However, all participants opted to do a live interview, and these were scheduled promptly after the last session. All eight interviews were completed between December 5<sup>th</sup> and December 12<sup>th</sup>, with all save one taking place on Zoom (following participants' preferences as indicated on Survey Monkey). The interviews were held promptly after the final session (two – nine days later) to capture participant's reflections while the experience was still fresh. The one in-person interview took place in a private room on University of Victoria campus and was also recorded and auto-transcribed using Zoom software. The majority were 30 – 40 minutes in duration, with the briefest interview being 28 minutes and the lengthiest being 46 minutes.

### ***3.2.4 Artist Statements***

I requested participants write artist statements to garner additional insight into the meaning behind their artworks and how the process of creating them may or may not have impacted their perception and experience of climate emotions and overall mental wellbeing. Generally, artist statements are short pieces of writing that accompany an artwork, often describing the medium, method and meaning of the art, the artistic process, and/or why the art was created and what the artist hoped to communicate through it (Janicke, 2015, 24 - 25). The purpose of requesting artist statements was first and foremost to ensure I was centering participants' interpretation of their artwork rather than my own. Providing an interpretation of their own artwork via the artist statement can address ABR practitioners concerns around intelligibility, namely that one does not work so imaginatively one simply produces “material that does not communicate” easily or connect well with others (Eisner, 2008, 19). Even when artwork does ‘communicate’, the intended message can be misconstrued without explicit guidance, as articulated by a study participant:

*...we all shared our artwork and even though on paper it didn't really look like it had... much meaning ...you can always look at an artwork and interpret it how you feel, but it was nice to be able to hear other people's interpretations of their own artwork too because sometimes... you can look at a painting and not relate it at all to climate anxiety and then they'll start talking and you'll be like, 'oh yeah this makes a lot of sense'. (Emily)*

Samaras (2010) argues that arts-based methods enable self-reflection and self-discovery, through both the visual depiction and the descriptive analysis associated with writing an artist statement. The artist statements ended up serving multiple vital purposes in this study which I will explore more in the thematic summary and analysis, including providing participants with additional opportunities to extend their emotional processing about climate change. While I am unsure of the extent to which the participants themselves approached the writing of artist statements as an opportunity for further emotional processing, many did include reflections on personal thoughts and feelings that arose during and since creating their piece. An unexpected outcome was the degree to which the participants would use their artist statements to 'theorize-back' (Tuck & Yang, 2014) about climate emotions, which I explore in Theme 4 of Chapter 4 and in the Discussion Chapter. This included drawing out social, economic and political themes in their work, considering the implications of embracing/disavowing certain emotions, and explicitly calling upon the reader/viewer to take action in specific ways.

Participants were informed when signing the Consent Form at the onset of the study and in subsequent email correspondence that they would need to write an artist statement of approximately of 100 – 400 words per artwork. I requested that the artist statements include a title, short description of mediums/materials used, and the meaning behind the artwork and/or a reflection on participants' process of making it. The word count was a rough guideline, so in the end the shortest artist statement

was 75 words and the longest was 511. Participants were given until January 31<sup>st</sup>, 2024, to submit their finalized artwork and artist statements to me via email, recognizing the time between the sessions and submission deadline might enable participants to reflect deeper, allowing thoughts to percolate before cementing them into words.

Data Collection Method	Description	Format	Dates/Due Date
Artmaking and dialogue sessions (including participant observation)	Session 1: Introduction to the Study and Artmaking (1pm – 3:30pm) Session 2: Climate Anxiety and related Eco-emotions (1pm – 3pm) Session 3: Climate Resilient and Socially Just Futures (1pm – 3:45pm)	Group in-person (researcher and all participants)	November 19 <sup>th</sup> , 26 <sup>th</sup> and December 3 <sup>rd</sup> , 2023
Interviews	30 – 40 minutes each on average. 7/8 took place on Zoom, 1 in person. All recorded and auto transcribed with Zoom software.	Individual, majority virtual	December 5 <sup>th</sup> – December 12 <sup>th</sup> , 2023
Artwork	Each participant was asked to submit 2 artworks created during the sessions and/or after the sessions but responding to one of the prompts. Total artwork: 16 (1 participant submitted 3 pieces, 2 participants submitted the same collaborative piece but with individual artist statements)	Individual, submitted digitally (JPG/PNG/PDF)	Due by January 31 <sup>st</sup> , 2024
Artist Statements	Written piece about the participants' interpretation of the artwork, including personal meaning and relation to session theme. (Suggested word count: 100 – 400, submitted: 75 – 511 words)	Individual, submitted digitally (Doc/PDF)	Due by January 31 <sup>st</sup> , 2024

*Table 3 Summary of Data Collection*

### 3.3 Analysis

I applied a Reflexive Thematic Analysis (RTA) approach to the data collected, which included the observational notes from the three artmaking and dialogue sessions, the interview transcripts, artwork and artist statements (summarized in Table 3). All data was digitized and uploaded to NVIVO 14. I reviewed all of the auto-generated interview transcripts for accuracy and referred to the video/audio recordings as needed to correct mistakes before uploading the transcripts to NVIVO for analysis. At the beginning of the analysis process, the interviews, session notes, and artist statements were treated as three separate data sets and analyzed separately. They were inductively coded following Braun and Clark's six phases of RTA (2006;

2019) as clarified by Byrne (2022). Coding is a heuristic and exploratory problem-solving technique that can be used for a range of qualitative data, including interview transcripts, visual art and observational notes (Saldaña, 2016). The six phases are familiarisation with the data, generating initial codes, generating themes, reviewing potential themes, defining and naming themes, and writing up, with the intention that the researcher move back and forth through the phases as necessary (Braun & Clark, 2006). To save progress and track the evolution of coding and themes I created a new NVIVO project for every shift in two phases (i.e. Project 1: Phases 1 – 2, Project 2: Phases 3 – 4).

As coding continued it became more difficult to keep the three data sets separate, especially the session notes (observations from the three artmaking and dialogue sessions) as they provided context for other responses, and participants frequently referred to what happened during the sessions in the interviews. After deciding to focus on coding the artwork and artist statements, and interviews as the two primary datasets, I did another round of open-coding before proceeding to phases 3 – 4, producing a mixture of latent and semantic codes. Then I compared the datasets and started to code for common themes among them. This process and reflections were tracked in an analysis journal (a series of analytic memos) to reflect on code choices, track my questions and issues that needed to be resolved, and identify emergent patterns and possible relationships between codes, categories and themes.

Initially the interview responses were grouped under their respective questions, what Braun & Clark (2019) refer to as domain summary themes. However, as patterns of shared meaning started to emerge among answers for multiple interview questions, the coding expanded to look at connections among all the interview responses. Analyzing the interviews and session notes together, I was chiefly interested in what the outcomes of the sessions were (first as

‘benefits’ but then changed to ‘outcomes’ to include positive, neutral and negative outcomes), how the sessions impacted mental wellbeing, and the mechanism by which the sessions had a particular outcome or impact on mental wellbeing. The latter was the most difficult to pin down, as participants were largely descriptive in their responses rather than mechanistic. Participants expressed how certain aspects of the sessions made them feel and sometimes hypothesized why, but during the sessions they were asked to be present to the experience rather than scrutinizing it and their own reactions. This led to substantial variation in the degree to which participants elaborated on why they thought a certain activity or aspect of the session impacted their mental wellbeing. Themes in this area coalesced into somewhat separate outcomes related to the dialogue, artmaking and relational components of the sessions, but mainly how those overlapped i.e. how the combination of individual and collective activities had individual benefits and built community among participants. In the end all of these areas were mutually reinforcing, and thus the separations that appear in the Thematic Summary of Findings are largely stylistic in order to narrate the outcomes in a chronological fashion.

The other overlap that was difficult to unravel was which outcomes originated from individual and/or collective processing of climate emotions, the relationship and community-building that took place, and other facets of the process that had impacts on mental wellbeing. Here too it was challenging to attribute causation or a hierarchy due to the qualitative nature of participants responses. Initially I thought this may have been a failing in how the interview questions were structured but ultimately believe that the interconnectedness of the various outcomes and aspects is a significant finding as I will unpack in the Discussion Chapter. Thus, the Themes were created under the basis of commonality, but also for narrative purposes to unravel the complexity and overlaps. Some domain summary themes remained given the

straightforward nature of those interview questions, such as which practices participants used in the past and they would use going forward to process climate emotions, logistical feedback on the sessions, and how participants wished to be involved in the research process going forward.

For the artwork and artist statements, the artist's interpretation of their own work and the metaphors and meanings described was centred in the analysis. I did this by looking closely at the messages and feelings participants were explicitly sharing and then following Tihani (2023)'s approach "making informed assumptions and inferences to uncover the underlying narratives and meanings concealed with the participant' stories and artistic pieces" (62). I began by coding generally for common themes regarding the main message/meaning of the artwork. While compelling, I realized that this was not helpful in answering either research question as it spoke more to participants' experiences of climate emotions rather than what they do/what the process did to address them. To get at the mental wellbeing impact of the artmaking/artwork I changed my approach to coding portions of the statements based on their topic/function (domain themes). I divided the 'functions' of the statement into reflections on the process of creating the artwork, what feelings inspired the artwork, what visual elements represent, and what the participant wants viewers to experience or learn as a result of viewing the artwork. I then created subcodes for each of these seeing the commonalities among the artist statements. I did keep one category that related more to the message/meaning of the artwork, titled Visions for and Elements of Potential Futures, as I suspected this might help me answer the second research question. Ultimately the categories that produced themes which were most useful for answering the first research question were the process of creating the artwork and what feelings inspired the artwork. The Thematic Summary of Findings that follows weaves the main themes from all data

sources together to provide context to participant's experiences of climate emotions and further explore both research questions.

## **Chapter Four: Thematic Summary of Findings**

This Chapter presents key findings from the study in the manner of a thematic summary organized around four overarching themes, each with their own sub-themes. As the data was analysed following the Reflexive Thematic Analysis methodology, the chapter does not present all data collected and seeks to synthesize it where possible. The exception is that all artwork and artist statements submitted by participants are included in their entirety to centre the participants' voice and their interpretation of their artwork. Theme 1 focuses on participants' lived experiences of climate anxiety and related eco-emotions, and what practices they employed prior to participating in the study to help them process these emotions. Theme 2 speaks most directly to my first research question, centring on how aspects of the artmaking and dialogue sessions (dedicated time/resources, cultivation of a safe space, intentionality of prompts, and combination of individual and collective activities) contributed to emotional processing and associated mental health benefits/outcomes. Theme 3 looks forward and describes which practices participants intend on using to process their climate emotions from now on as a result of participating in the study. Lastly, Theme 4 tackles the second research question through close 'readings' of participants artwork about hope and climate resilient and socially just futures.

### **4.1 Theme 1: Youth Lived Experiences and Understandings of Climate Anxiety and Practices to Process Climate Emotions**

As established in the introduction and critical context, young people are disproportionately experiencing the emotional toll of the climate crisis, manifesting in a range of climate emotions, most of which we may consider unpleasant or 'negative' such as anxiety, anger, fear, dread and hopelessness. While this study prioritizes different research questions than

those often used in climate emotions literature (how widespread and severe are experiences of climate emotions, how do they differ depending on age, geographic location etc.), gaining an understanding of participants' experiences of climate emotions was significant in this study for multiple reasons. Chief among them was to provide context and perspective to form a baseline: what was the impact of climate change on participants' emotional state prior to participating in the study compared with how the artmaking and dialogue process impacted their current mental wellbeing. In the first session they were asked to introduce themselves and share as much as they felt comfortable about why they chose to participate in the study. Since one of the recruitment criteria on the survey was 'self-identifying as struggling with climate anxiety' that was what many participants' focused on in their initial verbal sharing and artmaking. They also had the opportunity to elaborate on this at the beginning of the interviews, in response to the question: "What were your feelings about climate change prior to participating in this project? How were these feelings affecting your daily life, if at all?"

The main subthemes which emerged included:

- climate anxiety being experienced as constant or ongoing (always present but fluctuating from moment to moment/day to day)
- feeling guilt and anxiety associated with how they and others contribute to climate change, including concerns that they themselves were not 'doing enough' about climate change
- and awareness that young peoples' experiences of climate anxiety are distinct from and more intense than those of older generations.

Participants were also asked "what kinds of practices (if any) have you used to process your feelings toward climate change before participating in this study?". If needed I

provided examples such as artistic or creative practices, mind-body practices such as meditation, dialogues, and/or connecting with communities that engage climate emotions. All participants identified at least two practices they were already doing to support themselves with their climate anxiety and related eco-emotions, with two also naming practices they used to help them with generalized anxiety. The most recurrent practices included writing, various forms of physical movement/exercise, grounding in/connecting with nature, and talking to others about their feelings. One of the most interesting findings was that three participants who identified as artists and/or had used art as a practice to process other feelings (not related to climate change) had never considered using artmaking as a practice to process their climate emotions prior to participating in the study.

#### *4.1.1 Participants' Understandings and Experiences of Climate Emotions*



"Innocence" - reflects on my climate anxiety and about not knowing what is happening in the world, but it is happening. I chose this theme because I learned about climate change from a young age but did not fully realize most of its effects until I grew older. This artwork represents that feeling of enjoying nature, while not knowing on the other side of the hill, climate disasters and carbon emissions were rising. This process was liberating as all of the emotions I did not realize I had about climate change and climate anxiety were expressed in this piece. The artwork has a child-like style, which was intentional to express the innocence of childhood.

*Figure 5 Innocence by Holly (17)  
Acrylic, construction paper, and coloured marker on paper*

Climate anxiety and related eco-emotions have in the past and continue to have diverse implications for participants' mental health. This includes significant impacts on their daily functioning, choice of studies/career path, sense of agency, and relationships with others, including friends and family members. The artwork conveys themes such as nostalgia/longing for childhood (unburdened by awareness of climate change), grieving extreme changes in landscapes, and concerns about human disconnection from nature, among others. Descriptions of climate anxiety and associated eco-emotions were rich in visual and sensory elements and metaphorical language. Notably, participants started experiencing these feelings at a young age, between 10 – 14 years old, coinciding with learning about climate change between 5<sup>th</sup> – 9<sup>th</sup> grade in school and from family members. Many of them did not identify these feelings as climate anxiety at the time but do now in retrospect. Most participants characterized their climate anxiety as a fluctuating, constant/ongoing presence in their lives.

*Some days is just feeling distressed about all my actions in the past and how I contributed to climate change and that I'm not doing enough now to combat it essentially, but you know some days go by and you don't even think about it and then other days you wake up and you're like, 'oh my god, what have I done?!' Camille*

*I just feel very small in it all... [it feels like] a big overwhelming presence, like a big cloud over my head. And it kind of differs day to day. Some days are worse than others, but it is always something that is haunting me... I feel like I've learned to live with it cause there's not much I can do. So, it's just this kind of buzzing fly in the room at all times...I try my best to not let it affect my day, but it sometimes does bring my mood down which is hard to deal with. Camryn*

Additional metaphors were introduced in the second session, such as Camryn's description of climate anxiety as 'when you have either not enough coffee or too much, either you're drained and sad or buzzed and anxious' and my description of it as 'background noise' "*sometimes it gets really loud and sometimes it dims down*" (Camille). Elise described how fluctuations in her climate anxiety were often spurred by witnessing things in her environment that upset her:

*“Just noticing little things like the waste that we're producing: like walking down the street and I'll see recycling by the curbs and it's just so much plastic and so much waste and even something as mundane as that can bring me down during the day. So [climate anxiety is] definitely something that is constant in my life” Elise*

This is further demonstrated in her collage and artist statement below:



*Figure 6 Reckoning/Human Nature by Elise (20),  
Multimedia collage on cardstock*

This piece was a product of channeling my bottled-up feelings about humanity's current self-destructive path, the ways we are at the centre of a mass extinction of our own making. It represents the effects of capitalist ideology on the natural world and how we like to think we are in control of nature, when in reality we are one and the same, and will meet the same demise. The barren tree represents the loss of life and fertility, and the harshness of climate we will see as climate change progresses. The cut rose in the glass symbolizes the way we cling to beauty and try to save only what we deem valuable to us, even though it is unsustainable and temporary. The scene on the right depicts the massive losses of species occurring globally, which scientists are calling the 6<sup>th</sup> mass extinction and the time of the Anthropocene. A group of happy settlers in the background sings around a fire on which the final butterfly burns, and a businessman stands in the centre, representing capitalism and the handful of filthy rich, white men that are the cause of this destruction. His ghost-like appearance symbolizes both our own demise and the lack of accountability that polluting corporations experience. I feel that this piece reflects the inner turmoil and hopelessness I feel when I see small things in our society and culture that trouble me. People buying coffee from a corporation that is funding an ongoing genocide. Flowers blooming in January. Trash littering the roads on a windy garbage day. It's all connected. And who is to blame?

Robin and Ruthven also reflected on how their climate anxiety fluctuated over a longer period of time, from day to day and year to year, through different developmental phases. When they were younger the feelings of anxiety were so intense they impacted their ability to sleep properly.

*...in high school I was super stressed about climate change. At some point in my university degree I stopped thinking about it with such intensity. I'm not sure why, maybe some apathy but also because I was learning how to address it through my classes. All of the sudden when I was enrolling for courses this semester, I felt like I should be critically thinking about this...In high school I was having nightmares. Robin*

*[Climate anxiety] affected a lot of my nightly life because when I was younger, it seemed to be difficult for me to stop thinking about climate anxiety related thoughts when I was trying to fall asleep... Ruthven*

Three participants noted how these feelings were compounded by a sense of isolation.

*“Before these sessions, I felt really isolated about these feelings because I didn’t fully realize the impact of climate change and stuff until the pandemic when we were in [lockdown]. And I didn’t know how to cope with those feelings of climate anxiety because... my friends were really far away from me. So, it was really isolating and I felt super alone even though like there were news reports of other people coming together to fight climate change I didn’t know what to do and that made me feel really anxious.” Holly*

Another clear subtheme was participants’ awareness of the generational differences in experiences of climate anxiety and related eco-emotions, such as ecological grief.

I am an avid hiker, climber, and mountaineer and over time I have developed a deep connection to the alpine. In the minute segment of Earth’s timescale that I have occupied, I have noticed changes to the landscape that I immerse myself in. Each summer I return to the same mountain to play within its meadow and explore its glaciers whose meltwaters carve creeks that trickle into its milky-blue lakes.

The ice caves I play in have shrunk, the creeks have turned to rivers, and the milky-blue lakes have flooded and turned grey. Glacier ice wasn’t formed in my lifetime, it wasn’t formed in my parent’s lifetime, my grandparent’s lifetime, or my great-grandparent’s lifetime; it was formed when Earth was last blanketed by ice and snow. Over thousands and thousands of years, the blanket has been pulled back, slowly revealing valleys still backed by mountain ranges covered in glaciers. This process was destined to go on until the next epoch - the next natural phase of the Earth’s life.

Instead, we got it into our heads that time doesn’t matter; “we’re here now, let’s make the most of it”. Somehow, we have managed to drastically change the geological timescale over the course of a mere 100 years. Melting away 11,000 years of ice in only 100 years, as if it were a tray of ice cubes that can simply be put back in the freezer. Pumping 100 more ppm of CO<sub>2</sub> into the atmosphere in only 60 years, as if these numbers fluctuated drastically before. Believe me, they didn’t.

100ppm isn’t an insignificant number. We are supposed to be insignificant. We are supposed to Leave No Trace. And yet we think we are so important that it barely phases us when tens of thousands of years of Earth’s history vanishes in an instant; “it’s just how the climate works”. How do we have the audacity to think we know how the Earth works? An unstoppable force, losing more and more of herself and gaining more and more of us. The numbers keep rising: population, CO<sub>2</sub> emissions, the cost of living, anxiety, grief, greed.

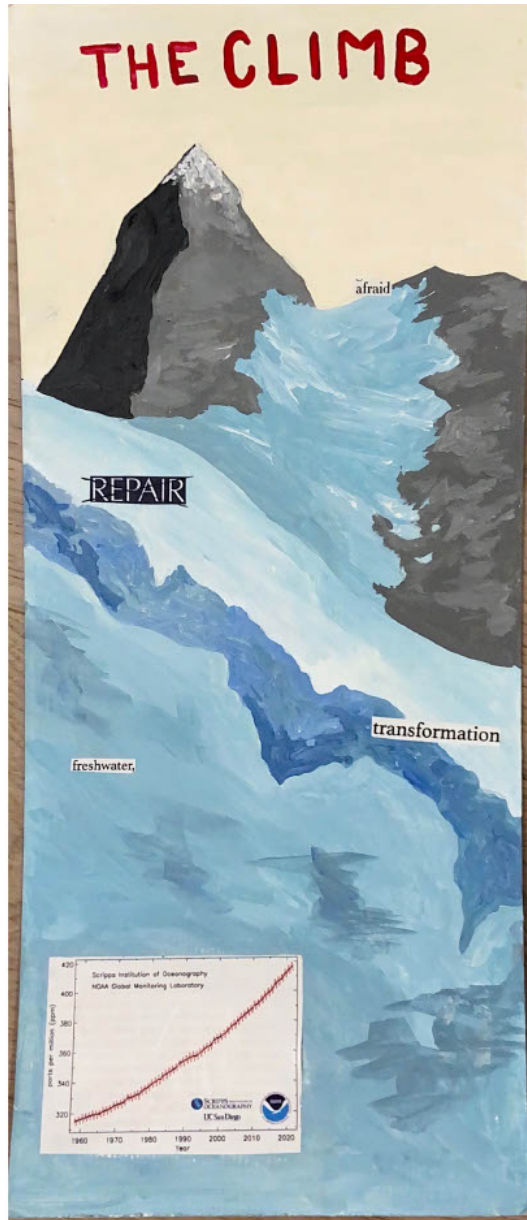


Figure 7 *The Climb* by Emily (21)  
Acrylic on cardboard

Participants affirmed that of course older people can and do care about climate change, but that youth are disproportionately affected by climate anxiety due to the degree to which they'll have to experience climate impacts.

*...we [young people] grew up with it, we were born in this time...the way my mom talks about climate change is different than how I think about it. For her it's something that kind of emerged out of nowhere and she's seen a time before it was an issue so she feels like it*

We can mine out all her precious metals, privatize and reroute all her water, blast the tops off all of her mountains, and cut all of the trees on her slopes, but she will keep spinning. She doesn't keep a grudge. She will maintain a constant trajectory in space even when the last human has been buried in the ground.

We took advantage of her unwavering hospitality. We forgot that we aren't the only ones who rely on her. We began creating our own peaks, but these are ones I can't climb. These are the mountains I have spent my entire adulthood agonizing over. These are the red lines in my textbooks - the ones politicians craft speeches about, the ones we protest about. When I stand at the base of a mountain and look up at its tallest peak, I realize how small I am. We are all so small. And we need to act like it.

*will pass...But because it feels like it's always been in my life, it feels like maybe it won't pass? And it's just going to get worse. Elise*

*...these [young] people are going to be living in the same future as I am and so ...we all really care a lot about what that's going to look like... I know a lot of older people who care a lot about climate change, but they aren't necessarily going to have to deal with all the same stuff we are, most likely, just because of age differences. Ruthven*

Participants also expressed varying degrees of anger and resentment that older generations did not take appropriate action earlier to prevent/mitigate climate change and disappointment that they are still not showing up in the ways that young people are.

*The most inspiring acts of resistance... I've seen are from young people like Greta Thunberg and people, my friends at rallies. I went to the climate rally in Vancouver in 2021 ...and everyone there was young, like my age. It was so inspiring, like we are this force, it's kind of defeating too to see that, you know, we're the only people that really care enough to go out. Elise*

This demonstrates how climate anxiety also stems from incongruences participants perceive between how their own actions and the actions of others (or lack thereof) contribute to climate change. Several participants reflected on having to navigate the tension between focusing on the individual actions they can take to mitigate their carbon footprint, and the awareness that climate change is a collective problem that requires action at the societal/global scale. Two participants shared how over-policing their personal actions exacerbated their anxiety, especially when they did not observe others investing the same amount of time, energy and care into reducing their respective environmental impact:

*In my daily life in the past few years, it's been more like my own personal decisions, my shopping habits and stuff...I think a lot more about what I buy and the impact that it's going to have, which is a good thing, but it definitely affects how I perceive other people's habits...Sometimes I get frustrated seeing what other people do that they don't realize, or don't care is going to have a negative impact, like throwing a bunch of stuff away and overconsuming... Ruthven*

*... up until this year I felt a lot of pressure personally to try and mitigate climate change just through my own actions. And then this year in school I learned a lot about how it's actually not that individualized of a problem and it's more based on the economy and the*

*society we live in and so that kind of helped me deal with some of my personal issues with it, and all the anxiety I felt to personally always try my best to be eco-friendly and whatnot. But after that happened, it kind of arose in me this fear of, 'well if it's not really an individual problem, how do we get the world to change then?' So, I've been feeling pretty heavy, like not completely hopeless, but a little bit of hopelessness around the bigger picture and our society that we live in and the way that we are not addressing climate change. Camryn*

Recognizing that individual actions could only take us so far helped Camryn release some of her anxiety, while simultaneously heightened her feelings of hopelessness regarding the bigger picture structures (economic, societal etc.) that would need to be transformed to adequately address climate change.

As shown through participants words and artwork, there are multiple overlapping factors that cause and exacerbate climate anxiety and related eco-emotions, including the sense that others don't care as much about climate change and are not taking the appropriate actions to mitigate their environmental impact, concern that individual actions aren't enough at the same time as feeling overwhelmed at the global scale of action needed, and feeling like they are alone in tackling the problem, as individuals but also as youth. This in turn manifests in overlapping mental health implications, such as frequent self-policing, disturbed sleep, anger and resentment that can impact relationships with others, and pervading feelings of hopelessness and distress about the future.

#### 4.1.2 Practices Participants Used to Process Climate Emotions Prior to the Study



Figure 8 *Yesterday's Enchantment* by Ruthven (19)  
Paint samples, glitter tape, plant tags, coloured pencil, pen  
and playing cards on construction paper

While crafting this collage, I was reminded of the blissful ignorance of youth before being exposed to the atrocities of the world (including climate change). The playing cards I found on the art supplies table resembled the pages of fairy books I collected as a young child. My fascination with the natural world grew from enchanted wonderment for all things magical I believed in. Reading about the tiny, winged beings that dwelled in the undergrowth of forests mesmerized me, and a strong place attachment to the environments fairies could live developed into what would later be a faucet of my climate anxiety. How could I sleep peacefully knowing that the destruction of spectacular ecosystems was underway? Around age twelve, I started having troubles sleeping at night. I had known about climate change for years at this point, but as I learned more, I fell deeper into despair and hopelessness. Unfortunately, I was too young at the time to identify the problem as climate anxiety, and too uncomfortable to share my climate concerns with anyone. I would read lighthearted graphic novels as a coping mechanism right before bed to distract myself. No matter how old I get, I always fall back into the comforts of fantastical illustrations.

Participants employed a range of practices to support themselves when experiencing climate anxiety and related eco-emotions, including mind-body practices such as meditation, yoga, nature journaling and connecting with the environment. Ruthven's artwork and artist statement, for example, shows that while reading novels was a distraction tactic, it served a vital purpose for her at the time, and she has since discovered practices that can better support her in processing her climate emotions. Ruthven, Elise, Emily and Robin all identified various forms of physical movement as helpful, including yoga, stretching indoors, ecstatic dance, hiking, walking, swimming, and paddleboarding outside. Elise emphasized "...moving around...[and] activating certain pressure points to help release that tension". A few participants did elaborate on how physical activity isn't always the ideal practice, for example because it can be difficult to

fit it into their schedule, or the exercise doesn't always stop them from overthinking. Four participants found writing about their climate emotions helpful, in a variety of forms including stories, poetry, and free journalling.

Five participants identified grounding in or connecting with nature in a myriad of ways, included exercising in nature, practicing mindfulness while outdoors such as through meditation and nature journalling, and listening to nature playlists. While they had different ways of connecting with nature, it seemed to have some overlapping benefits. Emily noted the meditative effects of "*learning how to be present in and around nature*". Three participants suggested that nature was instrumental in shifting their perspective, for example from eco-grief to eco-love. Being in nature provides a "*reminder of what there is to protect, and a reminder that there is still wonderful things in the world*" (Abbey). It reminds Robin of "*...how grateful I am to be in these environments and enjoy them while they are still here*". On the flip side, sometimes being in nature can trigger negative eco-emotions. Both Robin and Emily noted how seeing changes in landscapes they have known for a long time can be distressing and detract from the positive benefits of being outdoors.

While participants appeared to favour individualized approaches to processing their climate emotions, six participants mentioned having occasionally spoken to other people about them. Although helpful, participants seemed to struggle with this because of past experiences where it 'brought the mood down'. For example, when she was in high school Abbey was told by family members to stop sharing social media infographics about climate change because she was 'bumming them all out'. Rather than deter her, this cemented Abbey's decision to pursue environmental studies in university and continue these conversations: "*I'm going to go to school for it and then I'm really going to never stop talking about it!*". Similarly, Elise shared that "*I*

*don't have that many people in my life that know as much as I do or care as much as I do [about climate change] and that can hurt sometimes, but there are few people that I do talk to”.*

It is clear from participants’ responses that they were already intentionally seeking and enacting ways of processing their climate anxiety and related eco-emotions prior to the study. This took a variety of forms that had different benefits/functions, such as being meditative, cathartic, distracting, and grounding. Participants recognized that some of these tools were limited in their effectiveness and had both benefits and drawbacks, such as immersing themselves in nature and talking with others about their feelings. In Theme 3 we will return to these practices and compare them with the practices participants intend to utilize going forward because of their experiences in this study.

#### **4.2 Theme 2: How the Artmaking and Dialogue Sessions Supported Emotional Processing**

The primary purpose of this study was to determine how artmaking and dialoguing can support young people in processing their climate anxiety and related eco-emotions. Emotional processing is a complex cognitive and psycho-social process with many layers. As noted in the methodology section, to be easily understandable by potential participants it was simply defined as “reflecting on personal experiences, thoughts and feelings” in the recruitment materials and consent form. This theme elucidates how the following aspects of the artmaking and dialogue sessions supported emotional processing:

- dedicated time and resources (physical space, art supplies, activities)
- cultivation of a safe space for youth
- intentionality of the artmaking and dialogue prompts,

- interplay of individual and collective artmaking and dialogue components and overall progression of sessions

These aspects had multiple outcomes including supporting participants to:

- self-reflect and ‘confront’ their climate emotions
- release and transform unpleasant/negative emotions
- feel less alone and broaden their perspective on climate emotions,
- feel respected and validated by their peers and build a sense of community
- communicate their emotions to others
- generate positive feelings including feeling powerful, hopeful and proud of themselves<sup>1</sup>
- be more present, including focusing on the process of artmaking rather than the end ‘product’

As I discussed in my overview of the Reflexive Thematic Analysis, different participants attributed the above outcomes to different and/or multiple aspects of the sessions. Participants were not overly concerned with what caused which outcome and rather viewed the experience as a whole and the outcomes as layered and holistic. This suggests that various aspects and outcomes were mutually reinforcing, especially given that participants did not view the artmaking, dialogue, and/or communal dimensions as dispensable (all were necessary working in conjunction for the outcomes to occur). Thus, while I have tried to minimize repetition, multiple outcomes will pop up in association with more than one subtheme below.

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<sup>1</sup> Psychologists would likely use the term self-efficacy to describe these positive shifts in self-perception (Bandura, 1986). However I want to stay close to the terminology participants used, which primarily included feeling ‘proud’, ‘powerful’ and ‘good’ in relation to their capacity to create artwork and process climate emotions. I will engage with the literature on self-efficacy in the Discussion Chapter which follows.

#### ***4.2.1 Dedicated Time and Resources***

One of the most salient and practical benefits of the artmaking sessions was providing participants with a dedicated time and resources, which included the physical space, artmaking supplies and facilitated activities, in and with which they could self-reflect and express their climate emotions. Some participants, in their applications to participate (see Figure 4) and during the session dialogues, mentioned how it has been difficult to ‘carve out’ time for themselves, especially to make art. For Elise, having the space, the dedicated time, and all the art supplies she could want at her disposal meant there was ‘no excuse not to create art’. Robin greatly valued having the “*space away from classes*” to do the art project they had been thinking about for a long time.

*The most meaningful thing was to have the space to realize ideas that have been in my mind, I have a lot of ideas and thoughts bouncing around my head, some of them dissipate before I have the chance to make them real. Robin*

During the final group closing circle, when reflecting on all three sessions, many participants mentioned how the artmaking activities enabled them to ‘confront’ emotions or ‘forced’ them to introspect in ways they hadn’t before for various reasons. Painting Burning City (pictured below) in the first and second sessions helped Robin confront their ecological grief and climate anxiety through artmaking and invites future viewers to interrogate the realities they themselves may be mentally and emotionally disconnected from.



Figure 9 Burning City by Robin (21)  
Acrylic on Canvas

I was originally inspired to create this acrylic painting after taking an art course in the summer of 2023. It is a mirrored image of a cityscape, with half of the image depicting an abstract city on fire, and the other half of the image depicting the city before the fire. Throughout my degree, I have been thinking about how urban landscapes will be impacted by the climate crisis, and how people living in urban areas often see themselves as disconnected from the climate crisis. This painting seeks to challenge that notion of disconnection and also capture the grief of losing urban landscapes to climate disasters, along with more natural ecological areas.

For many participants, it was one of the first times they were encouraged to share their thoughts and feelings about climate change and be listened to in a meaningful way by sympathetic peers outside of a classroom setting. Referring to the first session on November 19<sup>th</sup>:

*...I think I was really anxious that day and [when] I came...I thought it would just be a normal part of my day, but I sat down and as soon as you started describing the [study]... I was looking at all the people there. I just had this moment where I was overcome with emotion for some reason. I think it was just the thought of someone creating a space specifically for our voices to be heard that was really touching to me. Elise*

Having a dedicated physical space and allotment of time with the structure and resources in place to have conversations and make art was the necessary first step. The following subthemes describe the additional factors which strongly dictated how generative the sessions were.

### 4.2.2 Cultivation of a Safe Space

The cultivation of a safe space<sup>2</sup> was a vital factor to enable emotional processing as it influenced participants' comfort with artmaking and freedom in verbal sharing. Emotional safety was an integral design element in my methodology and was co-created with participants, such as through collectively establishing group norms to guide our behaviour towards each other during the sessions.

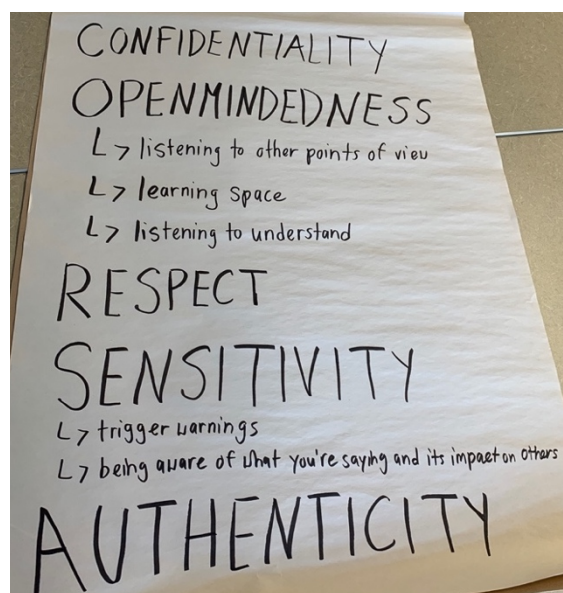


Figure 10 Flipchart paper of group norms/guiding principles set with participants in Session 1 (November 19th, 2023)

I suggested norms such as allowing each person to speak for as long or as short as they wished to (or not at all), avoiding providing unsolicited advice to others, and using first person (I language) when possible to express our viewpoints (See Appendix 4 for full list of guiding

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<sup>2</sup> Typically, a safe space refers to a closed space for members of a marginalized group to promote their emotional and psychological wellbeing (Anderson, 2021). As the term has spread, it is now often used more broadly to refer to spaces where people feel comfortable being themselves and sharing their feelings without fear of judgement or harm. There are debates about if any space can be truly 'safe', with many scholars and practitioners preferring the term 'brave space'. However, I use safe space as this was the language used by participants. In a similar vein I use the term 'emotional safety' as that is more closely aligned with how participants characterize safe spaces than the more technical term 'psychological safety'.

principles). Participants contributed additional group norms which were written on a flipchart (pictured above) and centred around confidentiality, open-mindedness, respect, sensitivity, and authenticity.

Two participants commented on how the atmosphere of the physical space, including the food, low ambient music, and people was relaxing and welcoming. Being united around a common purpose (using artmaking for processing climate emotions) helped participants feel comfortable, even during moments of silence which might have been awkward in a different context. The activities and the container the sessions provided as well as commonalities in the group related to environmental values and positionality as young people provided security and structure. Throughout the group dialogues and one-on-one interviews, participants regularly commented on the impact of realizing that other young people were feeling similarly, and that they were not alone in their negative feelings about the climate crisis.

*Just being in a room with everybody else and talking about it and knowing that they felt the same and that we're all bonding over our art and our climate anxiety, it just felt very natural and like we're already building a little community.* Camille

Quite a few participants specifically used the language of validation:<sup>3</sup>

*Anxiety can come from feeling alone in the face of these problems.... very validating and reassuring to know that others are feeling this way too.* Robin

This was especially helpful for participants who felt isolated and/or hadn't had many conversations thus far with other youth about their climate distress.

*...it felt really good to hear other people my age talking about [climate change] ... it's just nice to have all the different perspectives from everyone that I haven't heard a lot of people my age talk about...* Ruthven

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<sup>3</sup> Emotional validation generally concerns the process of acknowledging and accepting another's feelings or needs without judgement. It usually involves one person expressing acceptance or understanding of another person's emotional experience.

While similar outcomes might occur in other groups of youth with shared concerns around climate change, participants noted the high level of respect and openness among members of this group.

*These sessions positively influenced my mental wellbeing because I felt like everyone was so respectful and accepting of my stories, and it was very inspiring to hear their stories. It was a very safe space to share our thoughts about climate change, because of that, it positively affected my wellbeing.* Holly

*...honestly the art was great, but it was just the sense of community and the fact that everybody was so open and willing to share their thoughts and experiences was nice because I feel like sometimes we lose touch with the people around us. We're all going through the same things even if we're not like that willing to share so it's good to get people who are more open about it in a room with one another.* Emily

This sense of community that participants commented on at various points in the data collection was linked to common values and lived experiences of climate change but also instilled through shared moments of emotional vulnerability during the sessions. Feeling supported by the group to confront scary feelings in turn deepened some participants' emotional processing about climate change.

*A lot of the climate anxiety I had for most of my life was fear for myself and then making the group project and lots of the stuff that I've learned this year has made me fearful for everybody else. So I think doing the project together was a good way to face and reconcile the feelings I had, the feelings of fear I have for other people in the world.* Camryn

During the closing circle of the first session, Abbey mentioned how reflecting on climate change 'didn't feel so overwhelming because I was painting'. While this comment is tied to the artmaking itself, she also suggested that the safe space cultivated during the sessions enabled participants to release self-judgement around artmaking, and to explore their emotions without being preoccupied with what their piece looked like.

*I think even if you don't feel like you're good at art what we were doing is such a safe space to just explore your emotions and channel it into something.... you don't have to worry*

*about it being good or anything like that. It just has to be whatever you want to be and whatever you need it to be. Abbey*

This concept of the sessions being a safe space to do ‘bad’ art was an intentional design element that I unpack below.

#### **4.2.3 Intentionality of Artmaking and Dialogue Prompts**

A key element of the structure that supported participants processing of climate emotions was having specific artmaking and conversational prompts for each of the sessions. The intentionality embedded in the activities enabled participants to be present to their internal experience, identify specific thoughts and feelings, release/transform so-called negative emotions, and generate positive feelings towards self and others, such as gratitude and pride.

Half of the participants highlighted the functionality of artmaking for identifying and managing climate emotions, increasing their understanding of where these emotions are coming from, and helping them feel a greater sense of control. For the participants who had generalized anxiety and/or were experiencing stress from school, relationships etc., it was very useful to be able to distinguish negative emotions related to climate change from other sources. Many among them attributed this to the structure of the session:

*... having that question and that direction to go with in the art was really beneficial...that really helped me think more deeply about my feelings towards climate anxiety and climate change. Camryn*

In her artist statement for “Innocence” (Figure 5) Holly writes that the process of artmaking “...was liberating as all of the emotions I did not realize I had about climate change and climate anxiety were expressed in this piece”. This might imply that the artmaking process helped her increase her awareness of her climate emotions while simultaneously releasing them. Artmaking enabled multiple participants to release and ‘transform’ emotions they considered

unpleasant or negative, such as anxiety and anger, into more pleasant emotions such as love and gratitude. This was the case for emotions sparked by climate change but also applied to other mental stressors.

*...I feel like that was my most stressful time in the semester. So, to go in and have this prompt of like "What are you feeling right now?" I was just able to kind of get it all out.*  
Elise

Emily commented that "*the artmaking process was really cathartic cause it let me focus those emotions onto something else*". This may imply that in addition to the intentional artmaking prompts, having a physical object such as a piece of paper or canvas was useful to externalize unpleasant emotions. Emily had consciously channeled intense feelings of anger and resentment during her artmaking but looking at her pieces afterwards she was taken aback to realize that they weren't generally filled with anger:

*They were actually filled with a lot of appreciation and respect for nature... I think that switching from the anger to the appreciation, that making art kind of helped me turn those negative feelings into positive ones.* Emily

During the interview Camryn also remarked on her surprise that she was able to channel her feelings into art in such a way that helped convert them:

*Coming out of the first session it was a little bit overwhelming because it kind of felt like I'd just been to a therapy session. I walked out of there and it was like okay, this weight is off of me now...it felt very freeing to put all of these feelings into something I made...[I realized] I can turn all of these feelings that I would necessarily consider ugly or bad into something really beautiful and representative of the state of the world, and it felt kind of powerful.* Camryn

The intentionality of the prompts was one reason why artmaking was viewed as more effective for releasing anxiety than other practices, such as writing.

*The art itself is very therapeutic. I've never like sat down and thought about climate anxiety while doing art and I feel like it helped me work through my feelings a lot.* Camille

Over half of the participants remarked that they experienced a release and conversion of negative emotions in some way. While there were some commonalities, different elements of the artmaking and dialogue sessions had this effect on participants, including the space itself, the directions and intentional prompts for artmaking, the experience of artmaking, and the art piece itself. Camille, Emily and Elise also noted the sense of accomplishment that arose from feeling more in control of their emotional responses and discovering they could use artmaking to convert unpleasant emotions into more pleasant ones.

When explaining the overall study and activities in the first session I encouraged participants to be present and focus on the process of artmaking, rather than the end product and modeled this when making art alongside participants. Here Elise refers to a watercolour painting I made during the first session.

*Seeing other people make art was so inspiring too, like your piece in the first session was those strands over the background. And I was like, 'oh my god', I thought it had to be something so meaningful and so obviously calculated and whatever, and you just made something because that's how you feel, and you enjoyed making that and I really needed to see that I think. I was excited to come to every session after that. Elise*

Not only did seeing my more abstract piece give Elise ideas for new techniques to explore, but it also gave her permission to sit down without a plan and enjoy the process without trying to make it perfect, which made her feel powerful. Abbey similarly found that the collective activity forced her to be less in her head and more in her body. Camryn emphasizes in her artist statement below what the artmaking felt like, physically and emotionally.



Figure 11 *Loving the World* by Camryn (20)  
Acrylic on canvas

This piece was created based off of feelings of climate anxiety and the implications of learning more about the devastation of ecosystems globally. I used acrylic paint and water on canvas for this art piece. I was very absorbed in the moment as I painted this, and I felt very peaceful and connected to the practice of using my hands to create something. I am unsure what exactly I was trying to convey when I was painting this but looking at it now I feel as if it represents the taint that climate anxiety puts on my perspective of the natural world and its beauty. Whenever I immerse myself in nature it is hard to not feel a thread of sadness amongst the wonder because of the ever-lingering fear of losing wilderness, ecosystems and non-human life to the hands of our species. I think the painting resonates with this experience. I also was surprised to feel like I was looking at a self-portrait when I was finished. I feel homogenous to the black entity taking up space in this piece, standing in nature. I experienced no pressure to make anything perfect and I wasn't criticizing myself as I normally would while I created. I felt safe to express completely with no fear of judgment. When I was finished, I felt as if I had had a very positive emotional release from channeling my climate anxiety into something malleable and mine.

In her interview Camryn elaborated how by the third session she also came to care less about what her art looked like. She was very proud of the collaborative art piece she created with Ruthven and Emily 'Future Garden' (Figure 12) and happy not despite, but because the art piece was messy, and her hands were dirty. Camryn's artist statement encapsulates the outcomes in this subtheme: to better understand and identify one's feelings, release and transform climate emotions, and reduce self-judgement.

#### ***4.2.4 Interplay of Components and Progression of Sessions***

In this subtheme, participants expanded on how and why the interplay of communal artmaking and conversations, and individual reflection and creating was especially helpful in processing their climate emotions. In addition to feeling held by the process and common purpose as noted above, they appreciated the balance of deep introspection with more

lighthearted peer interactions. One of the common metaphors that emerged was the concept of ‘diving’ deep into oneself during individual artmaking and ‘resurfacing’ to connect with others during the closing circles:

*...it was really nice to just kind of zone out and create something, again that's where the whole meditative effect of this whole process comes in, but it was also really nice to delve outside of ourselves and talk with other people ...* Emily

*I think the individual activities allowed us to reflect deep deep inside ourselves of what we would like to express personally. And then for the collaborative pieces I felt like they were really wholesome...very community and environmentally positive.* Holly

On the other hand, they found the communal aspects, such as the dialogues and the group artmaking to be fun and energizing:

*It was a lot easier to come up with something with everyone's different ideas and what they all contributed. It was fun, different people's thoughts and ideas come together and was just like 'boom new thing!' ... So, I guess that's the difference [from individual artmaking] we're all like, 'oh, it's so fun to make art with you!'. Ruthven*

*"I noticed after talking to people about these feelings of climate anxiety and stuff, I feel tired whereas coming out of the art sessions, I actually felt like I had a lot of energy and was really excited to keep going with my day and I actually got a lot of stuff done after that artmaking session..."* Emily

In addition to feeling validated, as noted in Subtheme 4.2.2., learning about how other young people were struggling with climate emotions and making art together helped participants shift focus from self to others and gain a wider perspective on climate emotions.

*...seeing, hearing other people talk about it and how it affects them too is interesting to see how both similar and dissimilar everyone's emotions are to everything... it just put things into perspective for me, how other people are dealing with this as well.* Camille

*Listening to everyone else and their answers to the questions and prompts was something quite memorable and it was really nice to listen to all the different voices and how everyone else experiences climate anxiety and when it started, and why... it was good to hear from people who cared and their different experiences because I haven't experienced something like that before.* Ruthven

*With the individual sessions I felt very introspective and pondering my own existence and place in the world ... and then when we were doing the group piece, I was thinking about*

*how this has all affected other people, and not just inside our group like other people all over the world. Especially because of the piece we made it kind of represented a garden, like a community garden. So, it was really interesting to have both of those things. Camryn*



*Figure 12 Future Garden by Camryn, Ruthven and Emily  
Multimedia collage on cardstock*

This art piece was created by myself [Camryn] and two other participants in this research study. We used many different mediums for this piece including magazine clippings, yarn, string, glue, crayons, paint chips/samples, oil pastels and fine-liners, all on cardstock paper. We created this piece with the intention of creating a garden that represents what we wanted to see in the future for our ecosystems and climate justice. We spoke a lot about our experiences with environmentalism at UVIC and what changes we wanted to see in the future. In my mind, the vein of green that cuts diagonally across the piece represents the path we must take to reach a climate-just future. The rest of the image represents the ecosystems we must nurture to get here. In my opinion this is shown through diverse, eclectic, complex and overlapping ecosystems that break boundaries and expectations. All together this piece evokes a sense of hope, unity and collectiveness in me and brought me a lot of joy to create.

The last sentence of Camryn's artist statement suggests that both the collaborative process of artmaking and themes of collectiveness in the artwork generated hope. Other participants echoed that hope was gleaned both from the topics of conversation and artwork, and togetherness:

*I'm a little bit more hopeful because I got to interact with people who really do care and doing art is fun and I feel like everyone there was very into the artmaking process and really had a good time and a thoughtful time making their pieces and thinking about the prompts really deeply... Ruthven*

*[During the] individual [artmaking] I was thinking in my head a lot and working through that. And then the collective we were still thinking about our climate anxiety and looking for a more hopeful future...It may have been the theme of the last art making session too, but it just felt more hopeful and we're all bonding over something and even though we were talking about our climate anxiety [we were] also chatting and talking about other things off topic, so it felt more hopeful. Camille*

Camille had also commented in the closing circle for the third session that confronting emotions through art made her feel very hopeful and gave her a new perspective on making art. In their interview, Robin mentioned how participating in the study felt empowering: *"Together we can do*

*something instead of me and my little book against a whole world of problems*". Robin is referring here to how they used to journal to process their climate emotions prior to the study. Overall, participants' comments indicate that no one aspect of the sessions were dispensable, but rather the artmaking, dialogue and group components were equally vital and mutually reinforcing.

*...some of the things that I made stemmed from what other people said in the discussions beforehand and that's something that I really miss... it doesn't feel the same when you're alone in your room and don't have anybody to talk to about the art you make, like that's the best part in my opinion and what makes it really impactful.* Abbey

*I found hearing everyone's stories about their pieces very inspiring because although I view it as one way, the way they describe what it means to them made it so much more meaningful. And I love hearing their perspectives.* Holly

Half of the participants clearly articulated how artmaking enhanced their ability to express the nuance, complexity and enormity of their feelings about climate change. This was valuable within the sessions, but some proposed this would also help them communicate their climate emotions to others outside of the study.

*[Art] allows me to express myself when words can't. I feel in regards to climate change and the emotions we have around that we don't always have the language for that, which makes sense because this is something that humanity has never experienced so...I think art can be a really powerful tool in that way, being a visual representation of the emotions you feel.* Abbey

During our first closing circle, Camryn shared how *'you can express so many different things in one art form'* whether its painting or mixed media etc. She found that not needing to use words to describe her climate anxiety *'was very therapeutic and calming'* and took the pressure off having to explain herself.

*I think art is good for processing any emotions, but with climate anxiety, it's such a broad all-encompassing thing that's not very tangible or like you can't put it all into a sentence or even a book, you know? So, I think especially for climate anxiety, creating art that requires no strict interpretation...even words are confining and creating art around it was very beneficial for me.* Camryn

The end of the quote suggests that the autonomy built into the design of the artmaking (i.e. freedom to interpret prompts and create artwork as they saw fit) was as integral as the visual art medium for expressing climate emotions.

The final aspect of the session design that participants remarked on was the length of the study and recurring sessions. I purposefully spread the sessions out over three consecutive weeks with the hope that having multiple spaced-out gatherings would encourage relationship-building among participants (versus a one or two day intensive). Elise noted how the group became more comfortable with each other as the sessions progressed, seen in how people transitioned from silently working on their individual pieces to sharing more and more in the circles to co-creating their pieces in the final session. The majority of participants vocalized that they wished there were more than three sessions so they could have been able to get to know each other better and collaborate on more/and or bigger pieces. Despite this, participants were impressed by what they were able to achieve to the relatively short time together:

*It can be pretty mobilizing especially seeing the group projects that we did, like how...we didn't really know each other, but we were able to collaborate to make some interesting artwork to help process our communal feelings. Emily*

Overall, while individual artmaking had a meditative and peaceful quality which enabled them to acknowledge and sit with their climate distress, the collaborative artmaking and discussions generated ideas, energy and positive feelings such as pride and hope, and provided much-appreciated perspectives on climate emotions. The balance and order of elements was significant and necessary, to first provide the chance to reflect on their internal experience before sharing and collectively exploring them with the group.

#### ***4.2.5 Summary of Theme 2***

Providing the dedicated time and resources to make art and contemplate thoughts about climate change was significant within itself, but the other components that made the sessions uniquely useful were the cultivation of a safe space for youth, intentional prompts, and the combination of individual and collective artmaking and dialoguing. One of the biggest takeaways for participants besides how artmaking and dialogue supported individual emotional processing, was how it deepened their relationship to themselves, others and their creative practice. All three of these aspects seemed to be mutually reinforcing. Many participants developed greater comfort with artmaking, including greater confidence in using artmaking to process and communicate their climate emotions. Participants shared their surprise (and pride) at being able to release negative emotions through artmaking, and turn them into feelings such as joy, hope, pride, gratitude and love. Participants also felt validated and supported by me and their peers, who at times inspired them to experiment in their artmaking. Both the structure of the sessions and the relational aspects, including the emotional safety that participants cultivated throughout the sessions and the emotional vulnerability many of them displayed, created a conducive environment for these shifts to occur.

#### **4.3 Theme 3: Practices for Processing Climate Emotions Going Forward**

Theme 3 explores what practices participants stated they will use to help them process their climate emotions going forward. While practices such as talking with others, grounding in nature and physical movement were emphasized prior to participating in the study, post-study participants focused more on continuing to engage in individual and group artmaking and dialoguing about climate emotions with others.

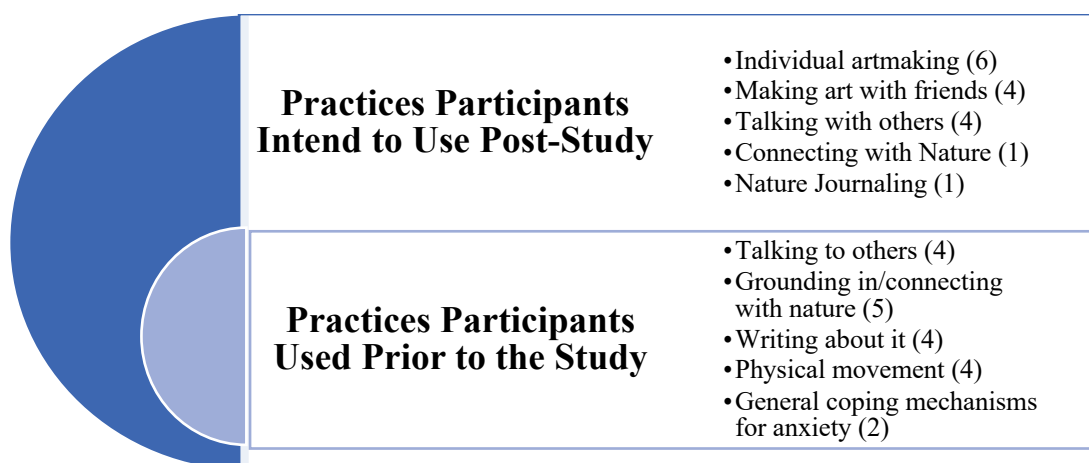


Figure 13 Practices Participants Did and Will Use to Process Climate Emotions

Many of the practices that participants mentioned using prior to the study to process their emotions remain part of their toolkit going forward, as indicated by the larger half-circle in Figure 13 (numbers indicate how many participants named which practices). The smaller half-circle represents new practices. Meaningfully, all participants mentioned that they would use artmaking in the future (individually and/or in groups) to help them process their climate emotions even though none had done so in the past. This also applied to other emotions/stressors.

*I've never like thought of making art as, a way to cope.... but it seems obvious to me now that that's the answer because it's been my strategy my entire life up to when I started school. So, it makes sense that it helped me so much when we were doing the study.* Elise

In the closing circle of the third session, Elise revealed that she specifically chose to apply to participate in this study to help her break the art block she had been experiencing for the past five years. In her words, artmaking had been a neglected part of her life, and she had so much pent-up energy from not being able to create these past few years which was finally being expressed through the study. As of her interview she had already been doodling more and planned to make art for friends as holiday gifts, giving credit to the sessions and calling them ‘transformational’.

Most participants planned to continue individual artmaking to help them identify what emotions they were feeling and express them in a healthy way, as well as try to create spaces for their friends to join them in artmaking and conversations about their feelings, including climate emotions. The motivation to do the latter was directly connected to their experiences during the artmaking sessions and the positive impacts they observed for themselves and fellow participants.

*...it would be cool to just make art with people that's kind of similar to what we were doing... I want to...have a night where I invite my friends over to make art and talk about what we're making and stuff like that. I just feel like that's a really good way to connect with people. Abbey*

*Seeing how much people grew afterwards and in our last discussion seeing how much it meant to people was really inspiring, and it makes me want to create those spaces in my own life with my own friends and create spaces to talk about those things and create things that people need too. Elise*

*I think it could be fun to host an art making session with my friends maybe, just surrounding climate change... I feel like that would help me open up about climate anxiety, and they might be facing it as well, and I don't know, maybe we could make a safe space as well. Holly*

Considering Holly's sense of isolation when she first learned about climate change during the COVID-19 lockdowns as noted in Theme 1, this shift to actively wanting to explore these topics with her friends feels quite meaningful. Not only did artmaking help her feel like she could have these types of conversations with her friends, but it even had the potential to make them fun! For Emily, participation in the study led to an entirely new appreciation for the power of artmaking that will shift her attitudes and actions going forward:

*...before coming into this session... I didn't really understand the importance of art. I always kind of thought of it as performative... Why are there so many artists making these pieces about stuff when they could just be directing those efforts to something else more meaningful? But then being able to process my emotions through something else other than talking was really helpful because I think people see talk therapy as the only way to process these feelings and sometimes you just don't want to talk about them... Now I'm like,*

*okay well, artwork isn't performative, and it actually doesn't really matter what you create just as long as you're able to shift your emotions. Emily*

Camryn also emphasized this idea that using artmaking an emotional outlet is valuable enough in of itself:

*...it's super important that young people are taught art not as something to be good at, but it's something to just make for yourself and for your own benefits. Camryn*

Shifting to the content of their creations, some participants shared specific themes and mediums they were excited to explore through future artmaking. For Holly and Robin, they felt inspired to make art with more explicit climate and environmental themes. Others emphasized trying out different visual art forms, including ones that weren't available to them in the sessions, such as pottery. For some, the sessions introduced them to a form of artmaking they were excited to take forward:

*...one of the things I really resonated with was when people were picking out specific words to add to their collages and I think being able to focus on specific words that bring out emotion in me will be really helpful to target why am I feeling this way and processing those feelings. Emily*

Half of the participants highlighted talking with others, including friends but also people they might now know as well, for example through joining clubs and getting involved with the campus garden. Seeing as a few participants had mentioned hesitance to talk to people about their climate emotions in the past, due to real experiences and/or fear of rejection or 'bringing the mood down', this shift feels meaningful.

*...I need to talk to people more often. I think I'm too scared of people not caring...I don't think that my friends and the people that I care about will be like, 'we don't want to hear your thoughts, stop it!' ...I know that there are people who care about me and I feel like they would listen and I just need to be more patient and not accept people to shut me down.... I just want to be a bit more intentional with the things that I'm doing for myself and be a bit more open to talking about it with people, even if they aren't as interested in environmentalism or they don't think about climate change very often." Ruthven*

The sessions clearly had the impact of increasing participants comfort with artmaking and dialoguing about climate emotions, individually and with others. Furthermore, their statements highlight the role of these spaces as a form of peer support, and participants willingness and excitement to create and seek out similar forums.

#### **4.4 Theme 4: Theorizing Active Hope and Visioning Climate Resilient and Socially Just Futures**

The following section explores answers to my second research question “in what ways might this arts-based approach help youth generate active hope, if at all?”. As prefaced in the Introduction Chapter, within climate emotions scholarship there are many approaches to talking and thinking about hope in a nuanced way, including active hope (Macy & Johnston, 2012). During the sessions, I did not explicitly introduce the concept of active hope nor define it for participants, and did not include it in any of the interview questions as I did not want to ask a leading question or nudge participants towards using active hope if it was not already in their vocabulary. As I coded the artist statements, I was surprised to find that much of the artwork embodied active hope, but just in different ways. Some participants did name concrete ways in which the artmaking and dialogue process generated hope, but most often when they talked about hope they were theorizing about it as a concept. Thus, the following Theme is distinct from the preceding four in that it centres around a more in-depth engagement with participants’ artwork and artist statements and their theorizations about climate emotions. The interpretations I present below are informed by the literature review I conducted, my observations during the sessions, and the words participants used to interpret their own artwork. You as the viewer/reader

may (and are encouraged to) come to different conclusions, although I do recommend keeping in mind what participants intended to communicate through their pieces.

Many of the metaphors and experiences conveyed through participants' artwork and interviews speak to the relationship between 'positive' climate emotions such as hope and 'negative' climate emotions, such as fear and despair, as existing upon a spectrum that shifts continually. This poignantly mirrors how participant's characterized climate anxiety as a constant but fluctuating presence in their lives in Theme 1. Here I have attempted to draw out these subthemes, and in the next chapter, I will elaborate on how the participants resist resolution and dichotomous understandings of these entangled climate emotions and visions of the future.

#### ***4.4.1 Visioning Climate Resilient and Socially Just Futures***

Participants' individual and group artwork depicting possible futures demonstrate a plurality of future-thinking, sometimes hopeful but most often layered, ambiguous and necessarily complex. In this subtheme I focus on participants' interpretations of what a climate resilient and socially just future could look like. Most climate just future artworks appear in Theme 4 apart from Future Garden (Figure 12). By and large the most common subthemes within these artworks were those of interconnection, unity and love. While projections of the future, these works indicate that participants' hopefulness is often tied to examples of resilience (of ecosystems, communities, individuals) they have experienced or observed around them. These include very concrete examples of community-building, ecological stewardship and restoration, mutual-aid, and climate solutions which address intersecting social needs. As discussed in subtheme 4.2.4, two of the concrete ways in which the artmaking and dialogue process generated and/or cultivated a sense of hope was through the relationships and sense of community that participants built with others, and the visioning of climate just futures.



*Figure 14 Stuck in the Rain by Emily  
Watercolour and pastel on paper*



For a future to be socially just, it requires a community rooted in resilience. For this piece, I decided to paint a metaphor describing the importance of a community-oriented effort to resolving the effects and hopefully solving some aspects of the climate crisis.

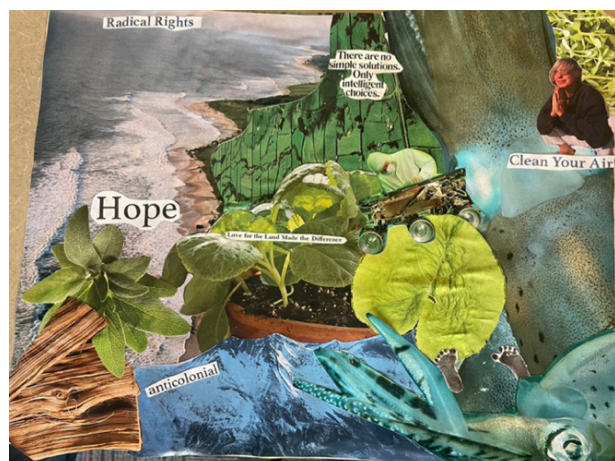
The first panel of this painting depicts a single umbrella, representing a community member who does not have a deep connection to their community. Because they do not have a network of peers, they feel alone. They can shade themselves from their anxieties by coping by themselves, but ultimately their anxieties seep through into their environment, shown by the wet pavement from the rain.

The second panel of this painting shows a community-based approach to the climate crisis. The single community member has found other likeminded individuals and is comfortable sharing their anxieties, allowing them to understand that they are not alone. The other umbrellas fill the gaps in their environment, allowing the community member to lean on others to help process the feelings of anxiety and dread that used to consume their environment. I find that young adults lack a sense of community. We have been exposed to an unlimited number of communities online, but these communities lack real roots. We need to narrow our field of view and broaden our definition of the climate crisis; yes, it's affecting every human everywhere, but it's more constructive to think about it as affecting every community everywhere. We don't need to be billions of umbrellas alone in a rainstorm, we can be a patchwork of tarps working to keep all of the streets dry.

Through her two-part painting Emily proposes that an emotionally connected youth climate movement is integral to creating a climate resilient future. By building communities with 'real roots', young adults will have others to lean on and share their anxiety and dread with, thus lightening the mental load of the climate crisis. She elaborated on her piece in her interview:

*I think a really important part of the climate movement is developing that sense of community because I don't think social media is doing a great job at helping us develop that. And so being able to work in person...through some sort of artmaking workshop, I think it will really help youth just understand that they're not really, like they're not alone, like they're not going through all this by themselves. Emily*

Although Emily is speaking broadly here, her reference to artmaking workshops, and prior responses shown in Theme 2, suggest that the artmaking and dialogue sessions offered the kind of in-person community-building she is advocating for.



*Figure 15 Building Resilience through Food  
by Camille and Abbey  
Multimedia on cardboard*

Camille and I have both been working for nonprofits that centre around food security in B.C. When we made this collage, we were thinking about building resilience and a better future, something I believe needs to be accomplished at least in part by food. There are many words and quotes on our collage that are extremely important for building the future we desire: radical rights, hope, and anti-colonial. In the centre, we have “Love for the land made the difference”. This quote stood out to me personally because deep love and connection to the lands we are on is something that could unify us all and build a better future. If people love the land and see the inherent value of it, they are more likely to treat it with respect. One of the ways you can connect deeply with the land is to grow your own food, something that I just started doing, and immediately fell in love with it. In Canada we are so disconnected from our food, where it grows, the conditions it grows in, and who is involved in the production of it. Growing your own food plants is not only healthier for you, but also for the planet. (Abbey)

Abbey and Camille see growing food as a community-building activity that can nourish people physically and spiritually through reconnection to the land. They are both committed to fostering a harmonious coexistence with nature and living sustainably in community, as evidenced by their work with food security organizations and other advocacy.

This collaborative collage, crafted in partnership with my friend Abbey Heard, centers the theme of hope that emerges amidst the confusion of climate anxiety. Our focus revolves around the positive aspects of collective action and the establishment of resilient communities in the face of environmental challenges. Rooted in our shared passion for sustainable food systems, this artwork subtly weaves in elements that symbolize our commitment to fostering a harmonious coexistence with nature. While sustainable food systems take a subtle visual presence through glimpses of plants and an aerial view of farmlands, their importance resonates as a guiding principle throughout the creation process. Our shared dedication to sustainable living and community resilience is an underlying thread that ties together the diverse elements within the collage. The inclusion of sea life, mountains, and trees reflects our love for the environment and serves as a visual ode to the natural world. These elements, coupled with the magazine cutout texts placed over the images, convey a narrative of optimism and conscious choices. Phrases like "radical rights," "hope," "there are no simple solutions only intelligent choices," "Clean Your Air," "Anticolonial," and "love for the land made the difference" speak to our collective vision of a collective future. Through this collage, Abbey and I aim to showcase the interconnectedness of environmental stewardship, community resilience, and the power of thoughtful choices. The melding of diverse elements and messages emphasizes the importance of holistic approaches in addressing climate change. As viewers engage with the piece, we hope to inspire contemplation on the positive impact of collective efforts and the potential for creating a better, more sustainable world. (Camille)

In their individual artworks these two make it clear they are aware of the issues and lives at stake, and their collaborative collage speaks to their continued dedication to enacting a better future here and now. Both artists tell us about the intentional word choice for the collage, and

how love for the environment is a core aspect of their hope and perseverance. Abbey also articulates this in her artist statement for *Interconnected*:



Figure 16 *Interconnected* by Abbey (20)  
Acrylic on cardboard

When I think about climate change, I think about the things in our world that I love. The things that keep me going in Environmental Studies when it gets depressing or difficult. The things that I want to protect. I think there is a common conception that nature is not intelligent, that it is merely something to be dominated. In reality, it is a network of complex and interconnected systems that work together to sustain life. When I think about why I do what I do, and what we have to lose, I think about this connectivity, and how humans can be a part of it. This painting was made to accentuate the ways in which all things are connected, specifically in B.C. The ground, water, trees, and sky fade into each other and blend together. I believe that the key to building a climate-resilient future is to lean into this connection and discover ways in which humans can not only benefit from the earth but give back to it as well.

As in Camille and Abbey's artworks, Elise's vision for a climate just future is anchored in the repair of relationships between humans and nature.

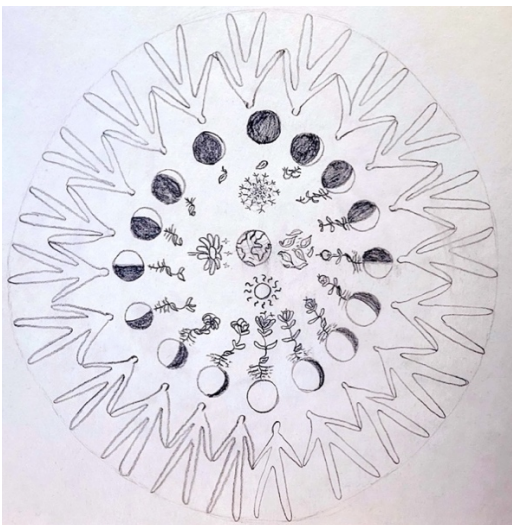


Figure 17 *Mandala for Change* by Elise  
Pencil on paper

I created this piece as a vision of what human balance and harmony with nature once looked like, and what it could look like again someday. On the outside, the people are united globally with common goals and support each other through the strength of community. The phases of the moon represent the natural cycles of life and of Earth, including the tides and the female cycles of fertility. I think that understanding these cycles of creative energy balanced with periods of rest is necessary to combat the eternal growth that capitalism and patriarchy demands and will help us regain connection to the Earth. A plant grows from seed, starting at the new moon and flowering at the full moon, reflecting this also. The four seasons are represented in the inner circle and the world is at the centre, a reminder of our place on the planet that connects all of us together. I thought of outlining everything in marker to give it more contrast, but I wanted to leave it in pencil to give it the feeling of a rough plan drawn up on paper. It felt good to create each element in balance and see the symmetry as everything came together in the end.

Again, we can see here that hope is tied to observations of resilience in her environment: observing the cycles of the moon, the seasons, plant growth, etc. Elise shared in the closing circle for the final session that she decided to draw her mandala with pencil (and was going to add pastels but ran out of time) because she wanted to use a childish medium: *‘we need to listen to children more when making decisions’* and we *‘need more optimistic hope like children have’*. So, although she doesn’t explicitly name hope in her artist statement, it was an element she had in mind while creating her piece.



"Resilience" - is a bracelet of hope, belonging and resilience. It represents a connected circle which describes how interconnected nature and people are. The leaves represent different stages of life and ecosystem hierarchy. The thread of the bracelet represents weaves of life, and interconnectedness. I choose a bracelet to represent the themes of interconnectedness and resilience because friendship bracelets are a way to show such themes. In this case, they represent unity, hope and harmony.

*Figure 18 Resilience by Holly  
Thread and painting samples*

Holly’s resilience bracelet embodies both the childish element and emphasis on interconnection that Elise’s Mandala does. This harkens back to Theme 1’s exploration of participants’ experiences of climate emotions as children and teenagers, such as Holly’s piece Innocence (Figure 5). While children and youth are disproportionately vulnerable to climate emotions due to many factors including their development stage and relative lack of access to resources, participants seem to suggest they need to be learned from and included in creating a better future.



*Figure 19 Woven Together by Robin  
Knitted wool yarn*

I was inspired to create this second piece between our second and third art-making sessions. It is a textile piece, created using the scraps of yarn from my other textile projects. Using the supplies available to me represents how society will have to use the relationships, structures, and processes currently available to build resilience to climate catastrophe. The monotone colors at the ends of the scarf represent compartmentalized urban landscapes, and the green/red yarn in the middle of the scarf represents more natural ecological landscapes. At the start of this project, I was unsure if I had enough yarn to make the full scarf, but I ended up still having some left over. This ability to complete the project from supplies I was going to dispose of is a representation of society's ability to use what is available to build climate resilience.

In Robin's exploration of a climate resilient future, I interpret that hopefulness can be fostered from their own resourcefulness (using repurposed yarn to complete it) as well as the resourcefulness and adaptability of society. While Robin says that society will have to use the relationships, structures and processes currently available out of necessity, they frame this as an opportunity rather than a challenge.



*Figure 20 Affinity by Ruthven  
Acrylic paint and glitter glue on paper*

My painting, the final solo piece I created over the course of this study, was made in consideration of the prompt, "how do you see a climate just future?" The bright colours over the dark sea of dark blues and greens represent the beautiful collaboration of diverse ideas and beings coming together to care for the wonders of the Earth. The strokes of pink glitter are the new innovations we have made to maintain a climate-just future and climate-safe world. As I covered the page in an array of colours, I considered the ways in which we, inhabitants of the Earth, need to collaborate to heal what some of us take for granted. The individual brush strokes and shapes do not matter as much as the intentions I had in mind while creating it; how am I going to play my part in making a climate just future? Who do I learn from? In which ways am I responsible in the action against climate change? Focusing on those questions through a hopeful lens resulted in this artwork. I often think about how common it is for people to either get burnt out from taking on too much (regarding climate action) or feel discouraged by a feeling of hopelessness leading them to inaction. I believe there is a fine line between climate hope and climate change ignorance (hopeful things will be fixed on their own, scientists will solve it, engineers, etc. can be slippery slope thoughts by not noticing how oneself can contribute). It is hard to remain hopeful and active simultaneously, but worth it. I wanted to express my hope in this piece.

Ruthven's painting straddles both subthemes of Theme 4, her vision of a climate resilient future hopeful at the same time as it warns against techno-optimism and offloading personal obligation to act. Her hope is also anchored in reality and generated by reflecting on her agency and responsibility to contribute to a climate resilient future in collaboration with others whom she can learn from.

Overall, when participants were asked to create visions of the future, they drew from examples of resilience in the present that they wished to highlight as things worth fighting for, investing in, restoring, and re-valuing as a society. Community-building, growing food, mimicking natural rhythms, learning from children, and using what we have to build more adaptive landscapes, are some examples. This may mean that rather than finding hope in imagined future possibilities, they find hope or comfort or the motivation to keep going from concrete present realities that they wish to protect and augment going forward.

#### ***4.4.2 Relationships between Hope and Anxiety/Fear/Despair***

This subtheme explores the nuanced ways in which participants theorized about hope and critically engaged with the relationships between what we might consider pleasant emotions such as hope, love and appreciation and unpleasant emotions such as anxiety, despair and fear. In their artist statements participants utilized metaphors such as spirals, dances, and rollercoasters to describe experiencing a wide range of climate emotions in a short period of time.



Figure 21 Hot and Cold by Camille (20)  
Multimedia collage on paper

In my collage titled “Hot and Cold” I delve into my feelings of climate anxiety, encapsulating the emotional rollercoaster associated with the global climate crisis. The teacup metaphor represents the daily flux between hope and fear, reflecting my internal struggle as I grapple with the impacts of environmental changes. The imagery in the collages varies from explicit depictions, such as fracking equipment juxtaposed against a snowy mountain and a burning house, to more abstract elements that mirror mixed feelings and confusion. This contrast aims to convey the urgency and complexity of the climate crisis, where tangible threats intermingle with intangible emotional turmoil. The phrase “democracy at stake” is incorporated to emphasize the broader societal implications of climate change. Beyond environmental concerns, this expression underscores the potential jeopardy to fundamental values and structures. It communicates a profound sense of danger, urging viewers to consider the collective impact on our societal foundations. The futuristic tile background offers a forward-looking perspective, balancing the narrative with a dualistic view of the future. Despite the challenges depicted, there is a simultaneous acknowledgment of hope and overwhelming fear. The addition of pills symbolizes the bitter reality of climate change, highlighting the difficulty in confronting and accepting the harsh truths associated with the crisis. In “Hot and Cold,” I invite viewers to contemplate their own emotional responses to climate change, fostering a dialogue about the urgency of collective action. The collage serves as a visual exploration of the intricacies between hope and fear, urging reflection on the need for a sustainable and harmonious future.

Participants’ employ of visceral, sensory words and imagery where movement is a key descriptor further conveys this notion that participants experience their emotions as perpetually in-flux, rather than static. In addition to the obvious dualism of hope and fear, Camille’s piece mirrors the tangible and abstract physical and emotional impacts of climate change. While focusing on grim current and potential impacts, she purposefully tries to balance “*the narrative with a dualistic view of the future*” as a way of reconciling or making peace with the simultaneous “*hope and overwhelming fear*” she feels regarding the “*the urgency and complexity of the climate crisis*”.



*Figure 22 Spiralled by Abbey  
Acrylic and modelling paste on cardboard*

As we all discussed our feelings about climate change in our second session I noticed a recurring theme- the spiral. Getting caught in a rabbit hole on the internet, or even one in your mind. The outside of the canvas is green, representing where my thoughts about climate change usually start, with the earth and the things I love about it. The spiral slowly turns black, as the distressing thoughts about climate change grow. Finally, the centre is red- the anger that sits at the end of the spiral. This piece speaks to the immense sadness and frustration I feel about climate change.

Hope and positivity in the movement are very important, but it is equally as important to acknowledge and address our negative emotions. A sadness or longing for the way things were. Anger at people who don't care, people who polluted the planet, people who left our generation to clean up their mess. The green vines growing towards the centre represent my hope, the thing that always pulls me out of my spiral. Negative emotions may overtake me sometimes, but I will always return to a place of soliphilia- the love of the entirety of our place relationships, and a readiness to accept the political responsibility for protecting and conserving them.

Twice in this artist statement Abbey emphasizes that she will ‘always’ find her way back out of the spiral, returning to the emotional state of love and sense of duty to protect that which she cares for. Elise similarly portrays hope and life as inevitable or always beginning again.



*Figure 23 Dance of Hope & Despair by Elise  
Acrylic on canvas*

This piece is an expression of the battling emotions I feel on a daily basis, witnessing the many signs of climate change progressing as someone who cares deeply about the environment and knows that hope, strength, and optimism are needed most at this time. Some days I read a news headline about microplastics being found in newborn babies, and I am plunged into fear, anger, and despair. The system we're in seems evil and inescapable, and my heart is heavy with the knowledge of all the suffering that has happened and will happen because of inaction and greed. I feel the weight of this, even though I look around and everyone around me is calm, and there are no alarms sounding except inside my head. Like the world is ending but nobody cares. This feeling is symbolized by the red entities in the painting, echoing the local Fort McMurray, Lytton, and Kelowna fires and the colour of anxiety and destruction. Despite this, there are always little pieces of love to be found and little miracles that give me hope. When I see the joy of two people being reunited, or my roommates making art, or hear the gentle hoots of an owl in the night, I am reminded that good and kind things still exist. There is love and hope in everything, and it gives me the strength to keep going. This feeling is symbolized by the green life in the painting. Some days it wins out, some days it is overcome by the red, but it always begins to grow at the edges again, just like life itself.

At first glance, it may seem that by using verbs like struggle, grapple and battle in their artist statements participants are conjuring an adversarial relationship with their climate distress. However, they also describe the same emotions as spiraling, intermingling, and even dancing with each other, implying at times a mutualistic ebb and flow, or reciprocal interchange of energy between ‘positive’ and ‘negative’ emotions. The paintings convey the blending of simultaneous emotions by visualizing them in movement with each other, resembling each other’s shapes but differing in colours and quality.

All of these pieces showcase the ever fluctuating and often contradictory climate emotions that bubble up on a day to day and moment to moment basis. Just as climate anxiety and ecological grief can be triggered by participants seeing things in their environment which distress them, such as garbage on the side of the road, hope can be gleaned from “*little miracles*” in the present, such as “*the gentle hoots of an owl in the night*”. This suggests that like how climate anxiety is a constant presence in their lives that oscillates in intensity, so is hope. Hope and love are not separate from but rather emerging within and in relation to the emotions of fear, anxiety, anger and despair and vice-versa. Thus, climate anxiety is not the stronger or more inevitable emotion. Hope can be accessed just as readily, should they go looking for it.

#### **4.4.3 Summary of Theme 4**

Theme 4 is distinct from those which precede it because it is not based in participants’ interview responses so much as my interpretation of their artwork and artist statements. However, it is included here because this arts-based data is relevant to my second research question, even if it does not answer that question clearly, and rather complicates the concept of active hope. This was my attempt to draw that data out, and I will explore the potential implications further in the discussion chapter that follows.

## 4.5 Conclusion

The thematic summary of findings aims to guide you through study participants' journeys, from their lived experiences, understandings and past methods of managing climate anxiety and related eco-emotions prior to the study, the outcomes they took away from the artmaking and dialogue sessions, what practices they intend to use to help them process their climate emotions going forward, and their visions of climate resilient futures and theorizations of hope. Since they were 10 – 14 years old participants have been experiencing climate anxiety as a constant and fluctuating presence in their lives that has manifested in a variety of impacts including disrupted sleep, overwhelm and feelings of hopelessness. They have sought to assuage these feelings by educating themselves and others, reducing their personal ecological/carbon footprint, exercising, writing, connecting with nature, and talking with others, with varying degrees of effectiveness. Participants were drawn to participate in the study to learn more about they might manage their climate anxiety, but also to grow or reconnect with their artistic side (Figure 4). While the artmaking and dialogue sessions focused on supporting participants to process their climate emotions, and proved effective in that regard, they had the fringe benefit of increasing many participants' comfort with artmaking and overall self-efficacy. This was significant by itself, not least because participants were excited to continue to create artwork to process their emotions. Considering that participants also expressed desires to host artmaking spaces for friends and community surrounding climate change and other topics, there is potential for a larger ripple effect from the study.

In addition to the themes presented in this summary of findings, there were a few that I coded but did not end up including because they fell out of scope. For example, I asked participants to share perspectives on what they believed artmaking and dialoguing with other

young people could contribute to addressing climate change. The resulting subthemes included art as an educational tool and conversation starter for discussions about climate change and environmental issues; dialogue as a platform for problem solving and collaboration in the fight against climate change; and art and dialogue as contributors to community-building, and the centrality of community-building to meaningfully addressing climate change. The latter does come across strongly in Theme 2 regarding how the sessions themselves cultivated a sense of community among participants. Unfortunately, due to the broad nature of these subthemes and the abundance and richness of all the data collected from the study, I had to prioritize those which spoke more specifically to the research questions. The following discussion does incorporate some of these subthemes to the extent they showed up in the artwork and artist statements presented in this Chapter.

## Chapter Five: Discussion

The thematic summary above presents a few metanarratives that I wish to explore regarding how the artmaking and dialogue sessions created for this study supported emotional processing, offered additional mental wellbeing benefits, and provided participants with an opportunity to theorize and engage deeply with the concept of hope without pushing hopefulness specifically. While I have structured the discussion around my primary research questions, the following three themes are throughlines of the entire research:

1. The individual and combined importance of the artmaking, dialogue and communal aspects of the sessions,
2. The necessity of co-creating a safe space with youth which supports them to experience, express and value a wide palette of emotions,
3. The power of artmaking as an avenue for youth to communicate not only climate emotions but also critiques, potential solutions, and dreams for the future.

These are explored in depth as they relate to the overall findings of the two research questions. I conclude with some general reflections on the study as a whole and suggest some future directions for research that I expound upon in the Conclusion Chapter which follows.

### **5.1 Research Question 1: Can visual artmaking and dialoguing help young people process climate anxiety and related eco-emotions? If so, how?**

*...it's really powerful to make art... in a group setting ...art is such a collective thing and it's so much more powerful when you're connecting to people with it and getting ideas from other people. Abbey*

This research question is primarily explored in Theme 2: How the Artmaking and Dialogue Sessions Supported Emotional Processing, although Themes 1.2 and 3 provide valuable context regarding participants past and future methods of processing their climate emotions. In the presentation of Theme 2 a few clear ways in which the visual artmaking and dialoguing process supported participants to process climate anxiety and related eco-emotions emerged, including the dedicated time and resources, co-creation of a safe space for youth, intentionality of artmaking and dialogue prompts, and the interplay of individual and collective activities and progression of sessions. As discussed in the Methodology and Findings Chapters, it was difficult to differentiate which individual aspects of the process contributed to which specific outcomes. Some outcomes were clearly associated with artmaking generally, including helping participants to identify specific thoughts and feelings, communicate the enormity and complexity of their climate emotions beyond words, and release/transform ‘negative’ emotions. The reflective, communicative and cathartic capacities of artmaking are well-documented in neuroscience, art therapy and community-based arts literature (Magsamen & Ross, 2024; Waller, 2015; Atkins and Snyder, 2017; Macoretta, 2017). For example, the sense of release described by Emily, Camryn, Elise and others can be explained by the art object providing a focus for them to project their intense feelings upon thus absorbing feelings of anxiety (Waller, 2015, 21). Art psychotherapist Joy Schaverien further argues that the aesthetic object has an ability to contain and hold opposing forces or emotions ‘in a resolution that negates neither’ (1999, 104). This is illustrated by Emily’s experience of throwing intense feelings of anger and resentment into artmaking but then seeing love and appreciation in the completed artwork, thus concluding that the process of artmaking helped her switch from anger to appreciation.

The study findings regarding how the interplay of artmaking and dialoguing facilitated emotional processing were also consistent with research on other arts-based interventions. For example, that dialogues enable eco-emotions to be discussed, validated and engaged with, and artmaking offers a creative and physical activity to more fully deliberate on them (Pihkala, 2020, 1). Meaningfully, participants saw these aspects as inextricable in terms of producing the positive outcomes. Participants noted the value of reflecting “*deep deep inside ourselves of what we would like to express*” (Holly) during the individual artmaking and then resurfacing to “*delve outside of ourselves and talk with other people*” (Emily) during the dialogue portion. Art therapist Patricia Nowell Hall (1987) describes this interplay between creating, listening and sharing which allows for a balance of privacy and sharing. First to “withdraw, reflect and explore, through the art materials, alone, intra-psychically and silently; and then to ‘come out’ and come together with others... each with [their] own individual and unique creation to show and/or talk about” (165). Participants emphasized how both were needed, to first meditate upon their internal experience vis-à-vis climate emotions and then to express and further explore these feelings with the group. In such a way the private world of artmaking becomes linked to the public world of language, “with an intermediate stage of being able to communicate with and confront oneself first, before sharing with others” (Nowell Hall, 1987, 165). Notably participants’ themselves used this same language of ‘confronting’ emotions through the sessions, and how the group process and safe space supported them to do so.

As outlined in subtheme 4.2.2 the safe space was cultivated both through structural elements and how participants showed up and contributed to the group. Structural elements included co-creating guiding norms with participants in the first session, allowing participants to decide what to create and with which mediums, what to share in the dialogues, how to interpret

prompts, and what mixture of individual and collective artmaking activities they wished to do and when to transition between them. While many of these elements were intended to boost participants' sense of agency, they were also about their comfort, consent and emotional safety. Asking for permission and input at various stages demonstrated that the consent form they signed was just the beginning of an ongoing trust-building and democratic process. As facilitator I also did my best to role model vulnerability, presence, and compassion in my verbal sharing and artmaking, following advice from Teoli (2020) and Leitch (2009). Arts-based researcher Ruth Leitch argues that "by facilitating and holding a safe, listening space, the researcher enables the participant(s) to story, narrate or dialogue with the image(s), thus allowing layers of meanings and significance to emerge" (2009, 54 – 54). However, participants commented more often on the respect and openness they perceived from fellow participants and how that made the space feel safe, more than me *per se* as facilitator/researcher. I also modeled welcoming, friendly, respectful and inclusive behavior which may have had a vicarious impact on participants treatment of each other, as Macoretta (2017) found in her observation of art hive facilitators and participants (71).

The group dialogue aspect made it distinct from a one-on-one talk or art therapy session where there is a clearer one-way transfer of ideas and emotions, i.e. the therapist posing questions but not sharing their personal thoughts or feelings with the client. Had I brought the participants through the process individually, there would have been a very different power dynamic (more clearly researcher and researched) and perhaps less emotional safety and comfort (feeling put on the spot or singled out). Participants commented on how hearing each other's stories was inspiring and affirming, with Holly also noting how impactful it was to have her own stories be listened to and respected. Storytelling has multiple emotional benefits including

positive reframing of past events, release from emotional inhibition, and increased social support (Fiddian-Green et al., 2019, 509). People often make sense of their past through “the formation of, and active listening to, coherent stories that are developed and shared in a group setting” (509). Having seven other young people to learn from and journey with through the sessions provided participants with the opportunity to develop a more wide-ranging and nuanced understanding of climate emotions. Educators and researchers alike recognize that group discussions generate space in which young people can question their assumptions, identify their values, compare evidence and explore perceptions (Bentz & O’Brien, 2019, 13). Furthermore, group artmaking, through observation of others’ creative processes, informal discussion, and experimentation with new mediums and techniques often results in the broadening of perspectives (Macoretta, 2017, 68). Participants ultimately garnered affirmation and support from no longer feeling alone in their climate emotions, learning how others attempt to manage them and simply verbalizing them to a receptive audience that was equally invested. As with youth participants in Kennedy et al.’s arts-based social action group aimed at mental health stigma reduction, “both experiencing their own vulnerability and witnessing the experiences of others created a more emotionally connected group” (2020, 31). No matter how I might have tried to relate to the study participants as peers and as someone who is similarly struggling with climate anxiety, a one-on-one setting would not have enabled the type of vulnerability or feelings of validation (being seen and heard by multiple people) that was achieved in the small group. I argue this is significant because some degree of emotional vulnerability is necessary for meaningful emotional processing in a group setting, and that vulnerability is not possible without first establishing a safe space.

Participants emphasized that shared positionality as young people and similar lived experiences and values related to the environment and climate change contributed strongly to emotional safety and associated outcomes. The artmaking aspect did play its part, aligning with existing scholarship that finds higher levels of cohesion, relationship building and feelings of belonging for participants that engage in group interactive art programming, whether its music (Fletcher, Hackett & Carr, 2019), visual art (Waller, 2015; Macoretta, 2017) or performance (Wright, 2020). However, these studies all also involved peer groups with similar mental health challenges, disabilities and/or life experiences. While study participants did see the merit of intergenerational spaces to address climate change, they felt strongly about also having youth-only spaces. Youth-only spaces were needed to serve two key purposes: facilitate emotional processing, given common experiences of climate emotions and understandings of the scope and complexity of the climate crisis, and co-create solutions, as participants feel youths' ideas should be centered in climate action as it is their collective future at stake.

Additional mental health outcomes that were experienced by individuals and supported by structural elements, the safe space and group aspects of the sessions included increased comfort with artmaking, and feelings of pride and empowerment (what we might also call self-efficacy). Participants shared their delight and satisfaction at discovering their ability to transfer ideas and emotions from their heads onto a tangible 'product' (the art piece). Many participants even surprised themselves with what they created, fostering deeper confidence in their artmaking abilities, especially for expressing climate emotions. As Camryn articulated in her interview while gazing at the collaborative multi-media piece (Figure 12) she made in the third session: *"I'm a little amazed by it... I can't believe I just put a bunch of feelings into these things!"*. By framing the sessions as a safe space to do 'bad' art and encouraging participants to focus on the

process of artmaking over the outcome, many noted being less ‘in their heads’ while artmaking and emphasized the physical and emotional aspects of the artmaking, rather than the visual.

Albert Bandura, an internationally recognized Canadian American psychologist, is credited with coining the term self-efficacy. He theorized that sharing personal experiences with others “is an empowering mastery experience not only for the health-related behaviors one discusses, remembers, and rehearses but also, perhaps more importantly, for the role-modeling of self-efficacy around the disclosure of personal content and emotions” (1986, cited in Fiddian-Green et al, 2019, 508). Interactive group artmaking ameliorates self-perception by enabling people to take responsibility for their actions, be authentic and exercise their freedom of choice (Aveline and Dryden, 1988, 144). It does this by not only enabling participants to take responsibility for their own images/artwork, but also their emotional responses (Waller, 2015, 3). This link between autonomy, authenticity, and self-efficacy were what influenced me to prioritize participants’ agency in the study design in the first place. Rather than simply taking passengers along for the ride (in which I as driver/researcher made all the decisions), participants were equally driving the sessions (navigating, braking, co-piloting as necessary).

The biggest evidence of their increased self-efficacy, apart from statements expressing pride and empowerment, was that participants very clearly articulated that artmaking is a practice they will use going forward to support themselves and others in processing their climate emotions, which they did not even consider using prior to the study. They expressed enthusiasm about hosting art nights with friends or simply creating more spaces for conversations about climate change with people they might not have discussed it with before. I deduced that participants left with increased excitement and confidence in their own ability to facilitate artmaking and dialogue about climate emotions. Participants realized that not only can they use

what they learned from this experience to support themselves, but they can also use it to support their friends, family, and community members with their climate emotions. The simplicity of the process and structuring it to be more open and self-directed than art therapy, counselling, and other more conventional mental health interventions makes it more accessible and replicable by the participants. This shifted youth from a stance of ‘needing support’ with their climate anxiety to a stance of feeling more capable of supporting themselves *and others* with climate emotions. Such a repositioning pushes back against common framings of young people as passive victims of climate change.

The other practices participants identified that they would use to process their climate emotions in the future were quite consistent with recommendations from mental wellbeing and climate emotions literature. This includes individual and group activities that help people reflect on emotions while having some obvious form of impact on themselves, their environment, community and/or systems (Barraclough, 2022; UBC Climate Hub, 2022, Zurba et al., 2023). In this study examples of this included making art with friends, nature journalling, and getting involved in a community garden. While art was by far the most significant addition to their repertoire of practices for processing climate emotions, participants also took away a deepened appreciation for community. This is demonstrated throughout the thematic summary, but figures most prominently in Themes 2 (How the Sessions Facilitated Emotional Processing) and 4 (Theorizing Active Hope and Visioning Climate Resilient and Socially Just Futures), where participants emphasize the importance of community-building for creating better futures. In addition to the desire to foster community, the positive experience in the group sessions seemed to bolster participants’ confidence in their own ability to build supportive relationships with others. This is significant given how scholars and the participants themselves have noted how

feelings of isolation compound climate anxiety and related eco-emotions. Youth climate organizers in studies from BC, Ontario, NS and Alberta all expressed needs and desires for a “like-minded community, community spaces and community care” (Barracough, 2022, 100) while simultaneously feeling that these spaces do not exist or are difficult to access (Gelderman, 2021; Law, 2022; Zurba et al., 2024).

In sum, the findings summarized in themes one through three were able to sufficiently answer the first research question: visual artmaking and dialoguing can support young people in processing their climate anxiety and related eco-emotions in several significant and interconnected ways. A number of these methods and means have been explained in research regarding art therapy, storytelling, dialogues and other community-based arts initiatives such as art hives. Given the open-ended, semi-structured interview format, and that participants were not asked to impose a hierarchy of benefits or establish causal relationships between certain aspects of the process and corresponding outcomes, it is difficult to determine which individual aspects are the most significant. Rather, the holistic nature of participants takeaways leads me to conclude that the artmaking, dialogue and communal aspects were mutually supportive of emotional processing and each component enhanced the benefits of the other. Core to this was the safe space co-created and maintained with participants throughout the study. Next, I elaborate on the importance of the safe space holding the full spectrum of emotions without pushing hopefulness as the primary outcome.

## **5.2 Research Question 2: In what ways might this arts-based approach help youth generate active hope, if at all?**

The concept of hope as a desirable climate emotion is contentious, as explored in the Introduction and Theme 4: Theorizing Action Hope and Visioning Climate Resilient and Socially Just Futures. Many authors have attempted to define and distinguish conceptualizations of hope, from active hope (Macy & Johnstone, 2012) to critical hope (Grain, 2022) to constructive hope (Ojala, 2012) and more. What is consistent is critique of idealistic or false hope, specifically toward those who utilize hope to excuse their own inaction and devolve responsibility onto others, which my study participants also denounced.

One of the ways in which I attempted to explore active hope was by structuring the third artmaking and dialogue session around participants' dreams for the future. In session three I asked participants what they thought a climate resilient and socially just future could look like and then invited them to visualize this through individual and collective artmaking. By structuring the session in this manner, my goal was to probe the connection between imagining and visualizing positive futures and generating hope as explored by climate scholars in Europe-based studies. These authors found that the arts, though creating space to engage with difficult emotions and encouraging creative thinking, can expand imaginaries of the future (Marks et al., 2023, 10; Bentz, 2020, 1608), as well as support infused action: "making the future present in order to create the necessary emotional and intentional predisposition for acting towards a new direction" (Galafassi et al., 2018, 10).

During the interviews participants were not asked about active hope or even about the visioning exercise specifically, to avoid potentially leading questions. I did however ask them if they noticed anything different between the individual and collective activities, which I hoped

might lead participants to comment on the visioning exercise given it was the prompt for the collective artmaking. In interviews participants remarked more on the relational aspects of that activity, how fun it was to create with the other participants, chat more casually, build off and each other's ideas and energies, rather than the content of the visions they created together and how that impacted their mental wellbeing. Interestingly, participants in Marks et al.'s high school workshops surrounding eco-emotions and hopeful visions similarly concluded that the usefulness of the workshops was not so much in generating hope but rather creating opportunities for "building community with others and further actions" (2023, 11).

Moving away from their experiences in the sessions specifically, my study participants did communicate through their submitted artwork and artist statements a myriad of sources they do glean hope from. Participants' future visions, including those which were more ambiguous and held simultaneous emotions of hope and fear, convey that participants cultivate hopefulness through noticing and contributing to positive real-world examples of resilience. This too was consistent with Marks et al.'s 2023 study, in which participants identified "micro-level possibilities for hope" in everyday moments and interactions, tied to "changing practices and dynamics" rather than reforming processes that are inherently unsustainable (8).

I argue that rather than being incompatible with Macy and Johnstone's concept of active hope, this orientation embodies it and the role visioning plays. The authors describe that active hope necessitates three steps:

First, we take a clear view of reality; second, we identify what we hope for in terms of the direction we'd like things to move in or the values we'd like to see expressed; and third, we take steps to move ourselves or our situation in that direction. (Macy & Johnstone, 2012, 3)

In line with this, Marks et al. argues that “hope requires an awareness of, and openness to possible future outcomes, an ability to respond to this creatively, resilience (an ability to endure adversity) and an opportunity to identify meaning and values and act in line with these” (2023, 1). As seen in Theme 4, participants clearly demonstrated their knowledge of both real-world challenges and opportunities, conscious dedication to their values including interconnectedness, unity, love and sustainability, and the actions they already or plan to engage in to enact better futures. They also seem to derive vicarious resilience<sup>4</sup> from these examples of resurgence, persistence and regeneration, as well as from witnessing the emotional resilience of their fellow participants. Eco-art therapists Atkins and Snyder explain that just as vicarious trauma can be developed from hearing about traumatic experiences or seeing harm caused to human and more than human others, positive stories and observations can spark “vicarious eco-resilience, a connection with our own abilities to navigate change, loss and threat” (Atkins & Snyder, 2017, 121).

Secondly, without my planning for it, the artmaking and dialogue sessions mirrored the steps that Macy and Johnstone identify as essential for visioning: “making space...focusing our intention to catch an inspiring vision, and ...anchoring what comes up so that we don’t forget it” (Macy & Johnstone, 2012, 168). The safe space allowed for participants to explore both fears and dreams for the future (which the authors see as equally vital), the intentional artmaking prompts allowed them to focus more specifically on what they would love to create/have/grow for themselves and their wider communities, and the artwork let them visually anchor these ideas

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<sup>4</sup> For the original formulation of vicarious resilience in the therapeutic context see: Hernández, P., Gangsei, D., & Engstrom, D. (2007). Vicarious resilience: a new concept in work with those who survive trauma. *Family process*, 46(2), 229–241. <https://doi.org/10.1111/j.1545-5300.2007.00206.x>

in a tangible product they could take away from the sessions and show others. As art therapist Spaniol writes in “Learned Hopefulness”, producing images enabled clients “to concretize their hopes and dreams...increasing the likelihood that they would become realities” (2005, 90). So, while active hope can be sparked by imagination it also requires enactment and living in congruence with one’s values, all of which is exhibited by participants artwork and artist statements.

Putting active hope aside, the finding which arises most prominently from the data is that participants deeply appreciated being in a co-created safe space which did not push resolution of their complex feelings or hopefulness as the end goal but rather welcomed a wide palette of emotions including those which are uncomfortable or scary. This is consistent with the growing recognition in climate emotions scholarship that allowing space for a full spectrum of emotions to be experienced, expressed and validated by others is an integral aspect of mental wellbeing. Suppression of so called ‘bad’ feelings, such as anxiety, despair and grief, can lead to avoidance behaviours and emotional dysregulation (Ray, 2020b, 40). On the flip side allowing, observing, and investigating an expansive array of feelings without attempting to control or change them reduces emotional distress and enhances emotional well-being, and helps us avoid the pitfalls of burnout, fatalism, or denial (Ray, 2020b, 48; Fiddian-Green et al., 2019, 508). While I designed the sessions to intentionally conclude on a hopeful note with the visioning exercise, I was careful to avoid pushing toxic positivity. Especially when working with youth, whose concerns are often invalidated, “hope should not be forced where it is not present, because the realities of climate change at times may feel hopeless, and this valid response must be honoured when it arises...” (Marks et al., 2023, 11).

Thus, I was careful to structure the sessions so that participants were not discouraged at any point from vocalizing or visualizing hopelessness, despair and fear. In addition to having their feelings affirmed by peers, openly sharing such experiences enables youth to see “that there are a multitude of ways to cope besides the two extremes of getting stuck only in the negative or to deny the seriousness of the climate problem” (Ojala & Chen, 2024, 279). Making a practice of sitting in the discomfort can help increase people’s confidence that they can move through painful emotions without getting trapped in any one barren place (Wray, 2022, 118).

This seems to be the experience of participants, who found feelings of joy, pride and empowerment in being able to process and express their climate emotions through the artmaking and dialogue sessions. Waller further notes how allowing people to acknowledge sadness, loneliness and other ‘negative’ emotions in art therapy is so useful because it is rare: these are sentiments “that many people have little opportunity to express in their day-to-day lives” (2015, 23). I deduced this was the case for multiple participants, from statements about how they did not feel comfortable talking with others about their climate anxiety prior to participating in the study from fear (or due to experience) of being shut down for being too negative, to those highlighting the uniqueness of the dialogues compared to more common conversations where it feels “*like certain things are not okay to say*” (Elise). Given the examples shown above, this is not a new finding arising from the study but rather contributes to emerging understandings that interventions must honour “the interconnected, compounding, fluid, cascading, and relational nature” of climate emotions, and those involving the arts engage discomfort in generative ways (Klassen, 2022, 94; Magsamen & Ross, 2024).

Lastly, as a Youth Participatory Action Research study, I wanted to outline some of the ways in which the visual artmaking and dialoguing process enabled participants to engage in

theorization and critique regarding climate emotions in new ways. While the primary purpose of having participants write artist statements in this study was for them to reflect on their experience of the artmaking process, their relationship to the finished artwork, and its personal meaning, many participants also indicated what they wanted viewers to learn or experience when looking at the artwork. Often participants invited viewers to contemplate their own emotional responses to climate change and their relationships with the natural world and the more-than-human. Emily's *The Climb* (Figure 7), Elise's *Reckoning/Human Nature* (Figure 6) and both of Abbey's paintings (Figures 16 and 22) can all be interpreted as critiques of humans' assumed domination of nature and calls for more egalitarian and reciprocal relations with other species. Having experienced for themselves the benefits of allowing themselves to fully feel and express a range of climate emotions, many of the participants advocated for viewers of their artwork to do the same as a political imperative. For example, Abbey writes in her artist statement for *Spiralled* (Figure 22) that "*hope and positivity in the [climate] movement are very important, but it is equally as important to acknowledge and address our negative emotions*". Pieces such as Robin's *Burning City* (Figure 9) insist upon the absolute necessity of challenging notions of disconnection and facing the hard truths of the climate crisis despite the difficult emotions that arise. This circles back to my argument in Chapter 2: Critical Context that those climate emotions which people experience as unpleasant are not inherently 'bad', not least as they serve a vital function of shaking people out of complacency. This mirrors climate emotions scholars' framing of climate anxiety as a natural and adaptive response to the climate crisis that if supported can lead to climate action, as discussed in Chapter 2.

Participants' interview responses and artworks clearly indicate familiarity with the systemic factors contributing to the climate crisis, such as colonialism, extractive capitalism, and

anthropocentrism. This critical lens was not cultivated by the sessions so much as the art provided a new method for participants to educate others about topics they were already knowledgeable and passionate about. Wright highlights the unique ability of artists to translate ideas “into a new medium that differs from its original form to create a work of art that aims to engage or critique systems of injustice” (2020, 37). Participants forwarded nuanced critiques of various discourses which perpetuate insufficient climate action such as techno-optimism “*scientists will solve it*” (Ruthven) and individual responsibility “*it's actually not that individualized of a problem and it's more based on the economy and the society*” (Camryn), among others. They call attention to intergenerational injustices, such as how Western consumerist culture promotes the logic of “*we're here now, let's make the most of it*” (Emily, Figure 7) and defers consequences to “*our generation to clean up their mess*” (Abbey, Figure 22). While participants argue in favour of collective action and warn against being trapped in small-scale behavioural change, they still believe in “*the power of thoughtful choices*” (Camille, Figure 15). They emphasize the value of exploring the ways in which themselves and others can exercise agency within their spheres of influence, whether that is starting conversations with peers, growing their own food or completing an Environmental Studies degree. While creating Affinity (Figure 20) Ruthven contemplated “*how am I going to play my part in making a climate just future? Who do I learn from? In which ways am I responsible in the action against climate change?*”. Her painting invites viewers to join in the creation of a climate resilient and socially just future by exploring their own answers to these questions. Environmental educator Julia Bentz argues that by guiding us through a meaning-making and embodied experience, artmaking is “a transformative process that can enable us to see and act differently on climate change” (1600). While the artwork enabled participants to express the above critiques, the artmaking

itself was transformative in terms of participants relationship with themselves, other participants, and their creative process, as I have explored in Theme 2 and in the discussion of research question 1.

To conclude this sub-section, even though this data did not give the most fulsome or conclusive answer to how arts-based approaches specifically could support young people in generating active hope, it did provide valuable insight into how participants are conceptualizing hope and the factors which they might deem more necessary at this critical juncture than hopefulness (namely making space for a plurality of entangled emotions). The act of creating artwork about what a climate resilient and socially just future could look like did cultivate a sense of hope (which I argue is active hope) in some participants, but they attributed this more to the group aspect than the topic itself. As Ruthven put it “*I'm a little bit more hopeful because I got to interact with people who really do care...*”. Throughout the full study, participants gained hope from being surrounded by other young people who were similarly invested in addressing climate change in a diversity of ways, including through processing their own climate anxiety. Outside of the sessions, the content of their visions suggest that participants more regularly cultivate hope (and vicarious resilience) through paying attention and participating in initiatives and relationships which enact climate resilient and socially just futures in the present. Methodologically, by participants using artmaking to express climate emotions but also to critique false solutions and the systems which underpin the climate crisis, this study contributes to literatures regarding art as a vital means of communicating both emotional experiences (Clover, 2018; West et al., 2022) and climate change information (Burke, Ockwell & Whitmarsh, 2018; Bentz & O'Brien, 2019, Bentz, 2020).

### 5.3 Conclusion

This discussion proposes many ways in which the study did support the emotional processing of the young people who participated and engages with participants' complications of the research questions and theorizations about climate emotions. Again and again, the data points to the inextricability of the artmaking, dialogue, and communal aspects of the sessions. While artmaking is undoubtedly a valuable method, participants greatly treasured being surrounded by like-minded and supportive peers in a co-created safe space. This was indispensable to facilitating the emotional processing about climate anxiety and eco-emotions for all participants, and hope for some. This communal aspect helped many individuals shift their attention from the climate emotions they alone were experiencing to those of the group and wider community. Widening their perspectives not only reduced participants' feelings of isolation about their climate anxiety but also reminded them of the power of community and collective scales of action, themes which appeared prominently in the art pieces from the third session on climate resilient and socially just futures.

While the findings are not able to speak as specifically to the second research question as I had hoped, they do suggest valuable critique and questions to explore further in future research. As I will expand on in the Conclusion, further research is needed to explore links between artmaking, future-visioning, and active hope while remaining open to alternative emotions/outcomes which youth may regard more highly. Notably this study contributes to existing literature which acknowledges the necessity of making space for a wide palette of climate emotions, and that increasing our ability to sit with (or more actively confront) climate anxiety and related 'unpleasant' eco-emotions is an essential step in meaningfully tackling the climate crisis.

## Chapter 6: Conclusion

The climate crisis is having disproportionate impacts on the mental health of young people, seen in various forms of climate distress including climate anxiety and related ecological emotions. These emotions can have short to long-term effects including Post-Traumatic Stress Disorder, depression, disruptions to daily functioning and physical health, and implications for individuals' life choices including career, education and reproductive decisions. Many young people feel isolated in these feelings and crave a community to help address them. For those engaged in climate action, whether through employment, studies, or activism, their ability to sustain their work can be severely diminished if negative climate and eco-emotions are left unaddressed. This has real political implications since young people are simultaneously the inheritors of the climate crisis and a driving force in the climate movement worldwide. While some supports exist including talk and art therapy, climate circles and cafes, and more intensive programs, many youth find these inaccessible, cost-prohibitive, not culturally appropriate or otherwise insufficient to meet their needs. Despite this, most of the climate emotions scholarship remains focused on deepening understanding of said emotions, rather than developing and piloting particular interventions. This study sought to fill this gap in research and practice by creating and running artmaking and dialogue sessions with and for young people focused on climate anxiety and related eco-emotions. A secondary line of inquiry was to see if these sessions, primarily through visioning climate just futures, might be able to cultivate active hope amongst participants.

The study was designed following Arts-based Research and Youth Participatory Action Research approaches with a mix of qualitative methods including participant observation, interviews, and participant-produced artwork and artist statements. The sessions themselves were

developed through a literature review of art therapy, mindfulness practices, and related mental health interventions, trainings and observations of climate circles and cafes, and informed by my prior experience facilitating youth climate workshops. The study and sessions design were reflexive to incorporate participant input and prioritize their agency in how they wanted to show up in the space and contribute to the research process itself. I engaged eight youth ages 17 – 21 (at the time of the study) in so-called Victoria in three multi-hour sessions in the Fall of 2023. Participants were predominantly female-identifying university students with a range of prior artmaking experience who all self-identified as struggling with climate anxiety, which was defined as past and/or current feelings of worry, distress, despair and/or fear associated with climate change impacts. Evaluation of the sessions was conducted through one-on-one interviews with participants, and they all submitted a minimum of two artworks and corresponding artist statements associated with the themes of the sessions. These were analysed following Reflexive Thematic Analysis protocols resulting in four major themes:

- Theme 1: youth lived experiences and understandings of climate anxiety and related eco-emotions, and practices to process climate emotions (prior to participating in the study).
- Theme 2: how the artmaking and dialogue sessions supported emotional processing.
- Theme 3: practices for processing climate emotions going forward (that participants will use because of the study)
- Theme 4: theorizing active hope and visioning climate resilient and socially just futures

Within these, major findings included that the artmaking and dialogue sessions supported emotional processing through providing a dedicated time and resources, a co-created safe space for youth, intentional prompts, and the interplay between the individual and collective components. These had an array of unique and intersecting outcomes for participants such as

helping them identify specific thoughts and feelings, express emotions beyond words, and release and transform 'negative' climate and eco-emotions, among others. The group aspect enabled participants to gain a wider perspective on experiences of climate emotions and build a sense of community with other participants. Many also left with a greater sense of pride and empowerment, and motivation to host artmaking and/or dialogue spaces for their peers and others. Some participants said they gained hopefulness from the visioning exercise, but more often they attributed it to the verbal sharing and artmaking with supportive and likeminded peers. Participants complicated the desirability of hope as the ultimate end goal, advocating instead for themselves and others to acknowledge and fully experience the breadth of climate and eco-emotions. This was seen as vital for individual mental wellbeing as well as society's capacity to meaningfully address the climate crisis.

### **6.1 Methodological Considerations**

There were several strengths and weaknesses in the methodologies employed in the study that I engage with here as an extension of my own learning as well as considerations for others who may want to utilize or adapt some of these approaches. This was my first foray into Arts-based Research, and I found visual artmaking to be a uniquely insightful and accessible data collection tool, due to its tactile, nuanced and flexible nature, and the array of choices afforded to participants. This is particularly evident when contrasted with the Digital Storytelling (DST) Methodology I had initially considered that would have confined participants to creating a one-to-three-minute autobiographical vignette in video/audio format (Lambert, 2010). By instead providing an array of visual artmaking materials and allowing participants to select whichever they felt drawn to/comfortable with and freely interpret the artmaking prompts, participants were

able to exercise much more agency and creativity. By not limiting them in either format or number of topics (DST includes only 1 narrative/story per participant), multiple stories and meanings were able to emerge. The high degree of autonomy that this approach to visual artmaking afforded participants contributed both to knowledge generation and building self-efficacy.

The artwork and artist statements provided a medium through which participants could process their climate emotions and theorize about how these emotional states operate, including philosophical and political implications. These two forms of data collection allowed participants to offer critiques and deepen engagements with these complex topics more than the interviews were able to on their own. As Klassen notes in her thesis, asynchronous data collection methods, such as artist statements or letter writing in the case of her study, provide participants with an emotionally safe opportunity to explore their climate feelings more deeply (2022, 108). They do so by providing “a layer of ‘invisibility’ to the participant which may allow for an expression of vulnerability not achievable in an interview” (Klassen, 2022, 107).

There are however a few characteristics of the artist statements I would change to enhance their potential as a data collection method. I was not able to do uniform coding of the artist statements in the same way as the interview responses because of how broad my directions were for length and content. In future I would be more specific with what I was asking participants to reflect on and more strongly enforce the minimum word count. Because I did not do this, some participants wrote quite little and some wrote quite a lot, with many participants including all three areas I had hoped they reflect on, but the majority writing about fewer. This meant that certain voices were privileged in the analysis solely because they wrote more and covered more of the topics relevant to the research questions, even though participants who

wrote less and more narrowly may have had additional insights to contribute. Another way to circumvent this may have been to include an interview question about participants' relationship to the artwork they created during the sessions.

Materially I did not have many expectations or methodological concerns regarding what forms of visual art participants would gravitate towards. I was pleasantly surprised at the diversity of submitted artworks which included paintings, drawings, and collages but also a scarf, bracelet and mixed media pieces incorporating thread, yarn and beads. Participants opened my eyes to the versatility, accessibility and sophistication of collaging, whose value in communicating complex ideas and feelings I had previously underestimated. While writing up the findings I learned more about why collage is such an effective data collection tool in ABR. Multiple arts-based researchers write about collage's ability to "disrupt, juxtapose, reorganize, and meld disparate imagery to develop new gestalts" and integrate layers of theoretical, artistic, and intersubjective knowledge (Chilton & Leavy, 2020, 616). Using text and imagery that already exists (rather than having to draw/write/paint it) makes collage more accessible for many people than other artforms. ABR scholars further argue that the integration of text and imagery is inherently disruptive by nature and can thus lead to new meaning making (Chilton & Leavy, 2020, 616). Outside of this study, I hosted two climate grief collage circles in Victoria for teenagers and young adults in July and September 2024 and came to similar conclusions through observing the power and diversity of participants' creations and their reflections on the process.

In addition to the artist statements, another aspect of data collection that I might have changed would have been to record the dialogues during the sessions, rather than rely on taking handwritten notes while also listening and facilitating. I decided not to audio-record the dialogues as I wanted participants to share freely without feeling like they were being analysed.

This is where having a research team or at least two researchers would have been useful, one playing the observer/notetaker role and the other the facilitator. Alternatively, I might have added an interview question asking participants directly about specific takeaways from the opening and closing conversations and/or if there was anything they would change about how they were structured, such as answering different prompts or sharing in pairs or small groups. With the interview structure overall, I wish I had adapted or created a more explicit evaluative framework. While many of the questions did get at what participants thought was valuable and what they might change about the sessions, I could have drilled down on many different elements which would have made the analysis (i.e. determining causation/hierarchies) more straightforward. While I did not want to ask a leading question by mentioning active hope directly, I do wish I had a question that homed in more on active hope and/or the value of the future visioning exercise in some way.

Lastly regarding the pairing of YPAR and ABR, these methodological frameworks were very complementary and an excellent fit for the research questions and objectives. As Tihani (2022), Clover (2018), Wright (2020) and others have noted, ABR is well suited for community-based and participatory action research due to its accessible nature, and established traditions of using artmaking as tools of resistance, cultural continuance, and resurgence, among others. I would have loved for participants to be more involved in the data analysis and meaning-making phases of the research process, but not many of them expressed interest in this. I also recognize the ways in which the short timeline, extensive ethical review process, and limited resources (funding, space, and so on) associated with a Master's study constrained the depth of YPAR that is achievable. Acknowledging that action is arguably the most meaningful aspect of YPAR, it is unfortunate that the timeline could not allow for knowledge dissemination, translation or

mobilization, which I intend to engage participants in after the completion of the thesis. Were I to do this over, I would have tried to partner with a local organization such as a youth-serving and/or mental health organization in Victoria that could have supported with recruitment and mobilizing the research.

## **6.2 Limitations**

Considering the small sample size, this research does not claim to provide generalizable results on the experiences of young people with climate anxiety and related eco-emotions in Victoria, BC or elsewhere, or guarantee that the artmaking and dialogue sessions will have the same outcomes for people outside of the study group. It is notable however that Macoretta's (2017) study involving art hive participants ages 55 – 75 in Montreal, Quebec reported similar mental health outcomes related to expression, autonomy, self-efficacy, and sense of community. As participants had to self-identify with climate anxiety and express interest in this study to apply, this may have attracted participants who were predisposed to have the positive outcomes that they did. For example, participants may have had more preexisting self-awareness of their climate emotions, and comfort with artmaking and/or dialogue than the average young person who struggles with climate anxiety. The bulk of recruitment being facilitated through the School of Environmental Studies at the University of Victoria also resulted in most participants being UVic students, many of whom were enrolled in Environmental Studies. Even though there were no requirements that applicants be interested in environmental issues or otherwise engaged in climate action, the youth that ended up participating were all concerned about the environment and well-informed about climate change and intersecting social justice issues. These shared interests and knowledge may be a key factor as to why participants were able to build

community so quickly. A group with more diverse educational backgrounds and values vis-à-vis the environment and climate change would likely yield different results. This also begs the question if people who are not environmentally conscious and/or knowledgeable about climate change experience climate anxiety (at least to the degree they are aware of it and able to self-identify).

I had hoped to recruit participants with as much diversity in age, background and experience as possible. However, I did not receive many applications from people who identified as men, BIPOC, or persons with physical disabilities, and only one from someone under the age of 19. This may have been due to the language of climate anxiety not resonating with certain audiences, or the artmaking and/or dialogue component discouraging people who do not feel as comfortable with expressing themselves in those ways. It is also worth acknowledging that the student body of the University of Victoria and population of Greater Victoria are predominantly white, and most students in Environmental Studies identify as female. I also had a limited window for recruitment and was not able to reach out to as many organizations serving equity-denied youth as I had hoped. Thus, despite the sessions being open to any young person aged 16 – 25 who met the study criteria I ended up with a narrower age range (17 – 21) and a more homogenous group than I had hoped for. It may appear at first that the study participants represent a relatively privileged sub-segment of youth who experience climate anxiety seeing as all were settlers and most identified as white, able-bodied, cisgender female university students, with a few exceptions. However, over half of participants also identified as LGBTQ+, two as neurodivergent, two as low-income, and two as racialized or mixed ethnicity. This is notable in light of recent surveys that show in British Columbia women and non-binary individuals experience a disproportionate burden of climate anxiety (Closson et al., 2022) and nationally

women and girls and LGBTQ2S+ people tend to experience greater mental health challenges and possess less hopeful outlooks on the future (Stephenson, 2023; Statistics Canada, 2022). As I openly identify as bisexual and am also a white, able-bodied cisgender female university student, these commonalities in positionality may have also contributed to community-building and collective identification among group members.

In addition to these commonalities amongst participants, the other factor which may have influenced the findings was my relationship with participants. As compared to other studies where there is less interaction between researchers and participants (i.e. one time one-hour interviews), I spent 7 – 9 hours with the participants over four weeks as I facilitated the three weekly artmaking and dialogue sessions and conducted all the one-on-one interviews. This longer period and depth of interaction with participants meant I was able to develop deeper relationships with participants than possible in shorter term studies. This may have positively contributed to co-creating a safe space with them during the sessions, but it may also have limited or otherwise influenced what they shared in the interviews i.e. telling me what I wanted to hear, holding back criticism, etc. This is another aspect of the study where having another researcher would be helpful, as they could have conducted the interviews and participants may have responded more freely (insofar as they perceived the second researcher as more neutral). Lastly, although I hoped participants would view me as a peer, the power dynamic inherent with research may have also influenced what they felt comfortable discussing.

### **6.3 Research Contributions**

*I think that some of the best ideas come from young people.... I feel like young people are the future... What we choose to do with our lives is going to shape the world's trajectory...it's really important to engage people, young people in that conversation and keep ourselves energized and artmaking is a tool to do that. Elise*

A key contribution of this research is reinforcing the necessity of identifying practices that support young people in processing climate emotions, and more broadly implementing accessible proactive programs and services to address the mental health impacts of climate change. Methodologically, to my knowledge this is the first youth-led climate emotions study using YPAR and ABR to explore lived experiences of climate anxiety and related eco-emotions and practices which can support youth in processing them and generating active hope. This is significant considering the dearth of youth-led qualitative studies that engage participants in theorizing about climate emotions and testing/evaluating interventions. Participants reiterated on multiple occasions how their positionality as young people mean they bear a disproportionate mental and material burden compared to other generations, and the conviction that only other youth can truly empathize and affirm the depth of those challenges.

Although this was not the primary goal of the research, this study has contributed to deepening our understanding of young people's lived experiences of climate anxiety and related eco-emotions in a few key ways. While the findings were particular to this small group of youth in Victoria, B.C. it supplements and nuances trends that have been observed elsewhere. For example, reports that many youth start to experience climate distress as young as ten and twelve years old and are hyper aware of how their actions and the actions of others are contributing to climate change, leading to frustration, overwhelm and hopelessness (Ojala et al., 2021; Allured & Easterlin, 2024). The artwork and stories of participants help us connect with the real lived experiences behind the numbers (i.e. in surveys of youth and climate anxiety) through moving metaphors and symbolism which convey their emotional weight. For example, participants' shared conceptualization of anxiety as a fluctuating but ever-present 'background noise' in their lives emphasizes the psychological burden of climate emotions and their long-term nature.

This research reinforces evidence that coping mechanisms such as connecting with nature and physical activity are effective and utilized by some young people, with many youth additionally calling for more collective means of processing such as artmaking, dialogue and community-building with others. Ideally these findings further empower mental health practitioners to incorporate artistic activities into their sessions and/or recommendations to clients. I also hope that parents, caregivers, educators and others who work with youth consider how they can support young people to develop practices to process their climate emotions in line with their unique needs. In addition to the Sessions Outlines (Appendix 4) for those who wish to adapt the arts-based approach introduced in this study, I have included a Victoria-specific mental health resource list for young people experiencing climate-related distress at the end of Appendix 1: Recruitment Materials.

### **6.5 Recommendations for future research**

As noted in the Critical Context, gaps persist in climate emotions scholarship which indicate the need for more qualitative, youth-led, and intervention-based studies. More research is required to better understand the experiences of vulnerable populations and support them, including BIPOC youth, Indigenous peoples in various localities, LGBTQ2S+ people, and people with disabilities. In many ways my positionality<sup>5</sup> influenced (and potentially limited) the

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<sup>5</sup> As a white cisgender able-bodied female settler with postsecondary education, I hold a lot of privilege within the climate movement and Canadian society generally which in many ways makes conducting methodologically experimental research more accessible to me. While my age and gender may lead some to take me less seriously, other aspects of my positionality afford me a certain level of respect and trust which has benefitted me in this study and elsewhere in my career. If someone with a different subject position that experiences more systemic marginalization, such as a woman of colour, neurodivergent, disabled and/or transgender individual, pursued this research they may have had the legitimacy of the research questions and/or methods scrutinized more, and may have faced greater barriers to accessing funding and institutional support.

ways in which questions were posed and who felt comfortable participating. Representation is powerful, as I have argued with youth-led research, and thus it is vital that researchers with different positionalities, particularly those with marginalized identities, be supported to conduct climate emotions research. Within research on youth and climate emotions, more studies are needed which engage youth as co-theorizers and co-evaluators, and where possible co-researchers, employing YPAR, critical youth studies, community-based research or similar frameworks. With the knowledge that young people are starting to experience climate distress at earlier developmental stages, more children and pre-adolescents should be engaged in research in age-appropriate ways. I hope this study emboldens others to test arts-based approaches (visual art but also music, poetry, theatre, and so on) to address climate emotions with different groups of youth over a wider geographic spread with more diverse identities and backgrounds represented (i.e. activists, students, workers, BIPOC, people with disabilities, multiple genders and sexualities, etc.). Lastly, I would love to see climate emotions, arts-based and social movement scholars to come together to take up research questions at the nexus of artmaking, future visioning and positive climate emotions such as hope and joy.

## **Appendix 1: Recruitment Materials**

### **1.1 Personalized Email Recruitment Script**

Hello [name],

I hope you are doing well. My name is Sabrina Guzman Skotnitsky, I am a climate justice advocate and Master's student in the University of Victoria's Environmental Studies Program. My Master's research is focusing on arts-based approaches for helping young people in Victoria process climate anxiety. In this study, 'processing' refers to reflecting on personal experiences, thoughts and feelings, and will be facilitated by group discussions and visual artmaking. I am contacting [name of organization] to see if you might share my call for study participants with youth involved in your organization?

I am looking for potential participants between the ages of 16 - 25 who self-identify as experiencing climate anxiety. In this study experiencing climate anxiety refers to an individual's subjective and self-determined identification that they have in the past and/or are currently experiencing feelings of worry, distress, despair and/or fear associated with climate change impacts. The study involves participating in three artmaking sessions with a group of around 15 youth in November and December 2023, as well as the participant's choice of an end survey or end interview. Participants will receive an honorarium and free refreshments during all of the sessions. Please note that while participation may or may not provide emotional benefits, this is not group therapy or counselling and is not intended for people in crisis or in immediate need of professional support.

Interested youth can fill out a participation application survey at [survey link here] which should not take more than 10 minutes to complete. Please see the Listserv Email below you can use.

Thank you so much!

Sincerely,  
Sabrina  
(she/her)

### **1.2 Listserv Email Recruitment Script**

Re: Recruitment for study about youth, climate anxiety and visual artmaking in Metro Vancouver

Sabrina Guzman Skotnitsky (she/her), is a graduate student in the School of Environmental Studies at the University of Victoria, is asking for research study participants who are 16 - 25, and self-identify as experiencing climate anxiety. Climate anxiety is defined as past and ongoing feelings of worry, distress, despair and/or fear associated with climate change impacts, and is self-identified, which means you decide if you have experienced these feelings. Sabrina's Masters research is focusing on whether and how visual artmaking and themed discussions can support young people in processing their climate emotions and generating active hope. In this

study, ‘processing’ refers to reflecting on personal experiences, thoughts and feelings, and will be facilitated by the group discussions and artmaking. While this may or may not provide emotional benefits, this is not group therapy or counselling and is not intended for people in crisis or in immediate need of professional support. The study involves participating in three artmaking sessions in Victoria with a group of around 15 youth on November 19<sup>th</sup>, 26<sup>th</sup>, and December 3<sup>rd</sup>, as well as the participant’s choice of an end survey or end interview. Participants will receive an honorarium and free refreshments during all of the sessions.

If you are interested in participating in this study, please fill out the participant application survey [LINK HERE] which should take no more than 10 minutes to complete. Sabrina will be in touch with you within two weeks to let you know whether you have been selected to participate. Selection will happen primarily on a first come first serve basis, however if more than 15 people apply who all meet the eligibility criteria participants will be selected to reflect as much diversity in age, background and experience as possible.

If you know someone else who may be interested, please pass along this email! For more information, please contact Sabrina Guzman Skotnitsky at [sguzmanskotnitsky@uvic.ca](mailto:sguzmanskotnitsky@uvic.ca)

### 1.3 Social Media Recruitment Script and Graphic



*Figure 24 Call for participants Instagram post*

Help me recruit for my Master’s study!

My Master’s research is focusing on arts-based approaches for helping young people in Victoria process climate anxiety. In this study, ‘processing’ refers to reflecting on personal experiences, thoughts and feelings, and will be facilitated by group discussions and visual artmaking. I am looking for potential participants between the ages of 16 - 25 who self-identify as experiencing climate anxiety. In this study experiencing climate anxiety refers to an individual’s subjective and self-determined identification that they have in the past and/or are currently experiencing feelings of worry, distress, despair and/or fear associated with climate change impacts.

The study involves participating in three artmaking sessions (November 19th, 26<sup>th</sup> and December 3rd) with a group of around 15 youth as well as the participant's choice of an end survey or end interview. No previous artistic experience required!

Participants will receive an honorarium and free refreshments during all of the sessions. Please note that while participation may or may not provide emotional benefits, this is not group therapy or counselling and is not intended for people in crisis or in immediate need of professional support. Interested youth can fill out a participation application survey at <https://www.surveymonkey.ca/r/G3QFDVN> which should not take more than 10 minutes to complete. Please share with people in your network!

#### **1.4 Application Survey and Study Consent form**

##### **Creating Climate Resilience: Arts-based Approaches for Helping Youth Process Climate Anxiety and Generate Active Hope**

You are invited to participate in a study, entitled “Creating Climate Resilience: Arts-based Approaches for Helping Youth Process Climate Anxiety and Generate Active Hope”, that is being conducted by Sabrina Guzman Skotnitsky and Dr. Kara Shaw.

Sabrina Guzman Skotnitsky is a graduate student in the School of Environmental Studies at the University of Victoria. She is also a Student Affiliate of the UVic Centre for Youth and Society. You may contact her if you have further questions by emailing [sguzmanskotnitsky@uvic.ca](mailto:sguzmanskotnitsky@uvic.ca).

As a graduate student, she is required to conduct research as part of the requirements for a Master's degree in Environmental Studies. This research is being conducted under the supervision of Dr. Kara Shaw. You may contact Kara at [shawk@uvic.ca](mailto:shawk@uvic.ca) or 250-721-7353.

You are invited to share the study information with anyone you wish to when deciding whether or not to participate in this research study, such as your parent, guardian, other family member, and/or trusted friend etc.

This research is being funded by the Social Sciences and Humanities Research Council (SSHRC) and the University of Victoria.

#### **Purpose and Objectives**

This study aims to explore whether and how visual artmaking and themed discussions can support young people (16 - 25) in processing their climate anxiety and generating active hope. Climate anxiety is defined as past and ongoing feelings of worry, distress, despair and/or fear associated with climate change impacts. This could be in response to tangible impacts that have already occurred, for example the heat dome and atmospheric river of 2021, and/or anticipated impacts. In this study, ‘processing’ refers to reflecting on personal experiences, thoughts and feelings, and will be facilitated by the discussions and artmaking.

#### **Importance of this Research**

To date, mental health and climate change scholarship has been chiefly concerned with the scale and experience of negative eco-emotions, rather than developing interventions or directly engaging youth in knowledge production. There is growing evidence of the benefits of artmaking in peer groups for mental wellbeing and resilience-building, but this form of intervention has not yet been tested with youth regarding climate anxiety. Developing programs that are accessible to youth, especially those involved in climate action, is of utmost importance to help them avoid/mitigate burnout, despair and apathy. Youth make up a large proportion of the climate justice movement worldwide and helping them sustain their engagement in pro-environmental behaviour and activism for the long haul is essential for the success of the movement as a whole.

### **What is involved**

If you are selected to participate in this study, you will be invited to join other youth in Victoria in a series of 3 artmaking sessions from November to December 2023. This will include:

1. November 19<sup>th</sup>, 2023, 1pm – 3:30pm: an introduction to the research project, other participants, and artmaking tools/techniques, including establishment of community norms and experimenting with materials;
2. November 26<sup>th</sup>, 2023, 1pm – 3:30pm: an artmaking session and group discussion focused on climate anxiety and associated negative climate emotions;
3. December 3<sup>rd</sup>, 2023, 1pm – 4pm: an artmaking session and group discussion focused on the prompt “what might a climate resilient and socially just future look like?”.

After the artmaking sessions you will be requested to submit artwork and artist statements based on the themes of sessions 2 and 3. You also will choose between completing an end interview (Zoom or in-person) OR an end survey through Survey Monkey.

Please note that although this study intends to provide a space for participants to process emotions around climate change, it is not group therapy, and Sabrina is not a trained psychotherapist or counsellor. If you are in immediate need of support or currently in crisis, please contact a crisis line or professional support. A list of resources is included at the end of the survey.

### **Selection of Participants**

You are being asked to participate in this study because you self-identify as a youth (16 – 25 years old) experiencing climate anxiety. Self-identification means that you the participant have determined for yourself that you are experiencing climate anxiety, and therefore does not require a diagnosis by a medical professional.

Please be aware that if you are a current student of Sabrina Guzman Skotnitsky (she is your Teaching Assistant) or Dr. Kara Shaw (she is your instructor and/or supervisor), you are unfortunately ineligible to participate. This is a safeguard to avoid a power-over relationship. If you consent to participate in this research, your responses from this survey will be used for participant screening purposes. If your application is approved, you will be sent a full consent form where you can choose which portions of the research to consent to and decide if you wish your identity to be anonymous, confidential or public. If you voluntarily consent to participating

in this research and to the use of this pre-study survey data, your survey responses will be used as reportable data. If you are ineligible for this research, drop out of the study and ask for your data to be eliminated, or participate in the study but do not consent to your data being reportable, your data will be deleted as soon as possible. Selection will happen primarily on a first come first serve basis, however if more than 15 people apply who all meet the eligibility criteria participants will be selected to reflect as much diversity in age, background and experience as possible.

**Demographic Questions** (only starred questions are mandatory)

1. What is your name?\*
2. What is your age?\* Please note that you must be at least 16 and at most 25 years of age (as of September 1st 2023) to participate in this study.
3. If you are comfortable doing so, please select the label that best encapsulates your current gender identity:
  - Transgender woman
  - Transgender man
  - Cisgender woman
  - Cisgender man
  - Non-binary
  - Two-Spirit/2-Spirit
  - Gender non-conforming
  - I would rather not specify, but I have a non-normative gender identity (i.e., I am not cisgender)
  - Other (please specify!)
4. If you're comfortable doing so, please indicate your ethnic or cultural origin(s), such as Indigenous, Chinese, settler Canadian, English, Italian, Filipino, Jamaican, Colombian, etc. Please note that this question is optional and has no effect on whether you can participate in this study. (open answer)
5. Do you self-identify with any of the following? (choose all that apply)
  - BIPOC/Racialized
  - LGBTQIA2S+
  - Low income
  - Person with a physical disability
  - Neurodivergent
  - Other (please specify)
6. Do you self-identify as experiencing climate anxiety?\* In this study experiencing climate anxiety refers to an individual's subjective and self-determined identification that they have in the past and/or are currently experiencing feelings of worry, distress, despair and/or fear associated with climate change impacts. Please note that this is a requirement to participate in the study but is self-determined and does not require an official 'diagnosis' by a medical professional. (open answer)

7. Would you be able to commit to meeting at the University of Victoria for 2 - 3 hours on the following dates: October November 19<sup>th</sup>, 26<sup>th</sup> and December 3<sup>rd</sup>? (Yes/No/Other)
8. Why are you interested in participating in this research project? (open answer)
9. Is there anything else you would like us to know about you?
10. This study is not a therapy or counseling session and is not intended to replace or substitute for professional support. As such, if you are in crisis or in immediate need of support, this is not the space to receive it, and you are recommended to contact a crisis line or therapist/counselor instead. Given this, do you still wish to proceed with your application?
  - Yes, I acknowledge that this study is not therapy or counseling, I am not currently in crisis or in need of professional support and wish to proceed with my application.
  - No, I acknowledge that this study is not therapy or counseling and will not proceed with my application.
12. By clicking the option, "Yes, I understand and wish to apply to participate", you agree that if you participate in the study your responses to this screening survey will be used. If you are not selected to participate in the study all responses will be deleted.\*
  - Yes, I understand and wish to participate
  - No, I do not wish to participate

#### Your Contact Information

13. How can the researchers contact you to follow up on this application survey and provide more details about this study?
  - Email Address:
  - Phone Number:

Thank you for filling out this survey! The research team will contact you soon. If you are selected, you will receive more details about the study. Please see the list below of affordable mental health resources in Victoria if you are in immediate need of support.

#### **Mental Health Resources**

##### Urgent Response

Suicide Hotline: [1 \(800\) 784-2433](tel:18007842433)

Call BC Crisis Line: [310-6789](tel:3106789) (Mental Health Support Line)

Text / Chat: <https://youthinbc.com/>

KUU-US Indigenous Crisis Line: [1 \(800\) 588-8717](tel:18005888717)

##### Victoria Youth Clinic – Foundry Victoria

Intended to provide mental health and addiction care to youth ages 12 – 24, including youth peer support, counselling and expressive arts therapy. <https://www.victoriayouthclinic.ca/>

### Child & Youth Mental Health Intake Clinics

Youth can access free and voluntary community-based mental health supports and services in B.C. Find one in your area here:

<https://www2.gov.bc.ca/gov/content/health/managing-your-health/mental-health-substance-use/child-teen-mental-health/mental-health-intake-clinics>

### YMCA Mental Wellness Programs

Y Mind Teen (13 – 18) and Youth (18 - 30) are free seven-week mental wellness programs delivered across BC. Participants learn and practice evidence-based strategies to help manage anxiety. <https://www.gv.ymca.ca/mental-wellness>

### Low-cost Counselling and Therapy

<https://www.talltreehealth.ca/services/counselling>

<https://www.nofearcounselling.com/rates/low-cost-free-counselling>

<https://arttherapy.network/therapists/>

List of more free, sliding scale and reduced-cost counselling in Victoria:

<https://drcvictoria.com/wp-content/uploads/2018/02/VDRCFreeandAffordable-1.pdf>

### Mental Health and Climate Change Specific Resources

Mental Health and Climate Change Alliance <https://mhcca.ca/resources>

Virtual Youth Climate Circle <https://oneresilientearth.org/the-youth-climate-circle/>

Virtual Climate Workers Circle <https://www.kadycowan.com/climatetictalk.html>

## **Appendix 2: Interview Questions**

Do I have your consent to record this interview? (ask before starting to record and then ask again when recording has started to have it captured on the transcript)

Clarify what name and pronouns they wish to be used.

### **End of Project Interview Questions:**

1. What were your feelings about climate change prior to participating in this project? How were these feelings affecting your daily life, if at all?
2. What kinds of practices (if any) have you used to process your feelings toward climate change before participating in this study? For example, artistic or creative practices, dialogues and/or communities that engage climate emotions.
3. What aspects of this project did you find the most meaningful, if any? For example the group discussions, the artmaking itself, the time for self-reflection, sharing your art with others, writing the artist's statement, a combination of things.

Potential Follow-up Question: "what differences did you notice between individual and collective activities? If any."

4. How did certain parts of the project affect your mental wellbeing, if at all?
5. What tools or practices do you think you will use in the future to help you process your climate emotions?
6. Based on your experience, how do you think art and/or dialogue with other young people can contribute to addressing climate change, if at all?
7. What advice might you have for me as I continue with this work? Do you have suggestions for improvements to sessions like these, and/or are there other kinds of events or next steps you would recommend? (optional)
8. How might you like to be involved with next steps for this research, such as knowledge dissemination and mobilization, if at all? This could include reviewing my findings, collaborating on sharing these findings with others, or in other ways? (optional)
9. Is there anything else you'd like to share? Or do you have any questions for me? (optional)

### **Consent Clarification Questions:**

Do you consent to have your name included in a list of participants?

Do you consent to have your responses associated with your first name?

Do you consent to have your responses associated with a pseudonym?

If so, would you like to pick your own pseudonym?

### Appendix 3: Observational Protocol

Session [Number] [Time] [Date]	
Descriptive Notes	Reflective Notes
<p>What are some quotes shared by participants that stand out?</p> <p>How did the energy of the room change throughout the different activities? I.e. tone of voice, body language, speed of conversation/movement? Were there noticeable differences/shifts from the last session?</p> <p>How would you describe the relational dynamics or rapport between the participants? Were there noticeable differences/shifts from the last session?</p> <p>Are people working together or independently and how does that happen?</p> <p>Materials/Mediums:</p> <p>What are participants attracted to and not?</p> <p>Are there any surprises?</p>	<p>What are the major themes that emerged in this session?</p> <p>Why might people have chosen certain colours, textures, media?</p> <p>Other reflections:</p>

Observational protocol model adapted from:

John W. Cresswell (2016) 30 Essential Skills for the Qualitative Researcher. Thousand Oaks,

CA: Sage. <https://www.sfu.ca/~palys/Cresswell-2016-30EssentialSkills-Observation.pdf>

## **Appendix 4: Artmaking and Dialogue Sessions Outlines**

### **Overview**

The three-session artmaking process will include:

1. November 19th: an introduction to the research project, other participants, and artmaking tools/techniques, including establishment of community norms and experimenting with materials.
2. November 26th: an artmaking session and group discussion focused on climate anxiety and related eco-emotions.
3. December 3rd: an artmaking session and group discussion focused on the prompt “what might a climate resilient and socially just future look like?”.

All sessions will include Sabrina as facilitator and all participants. Throughout the sessions data collection will happen primarily through Sabrina’s observations and note-taking combined with harvesting methods (i.e. writing down on sticky notes) that the group will determine together during the group norm-setting process. The majority of the observations will be recorded after the session has concluded so she can focus on facilitating and supporting the participants and later can reflect on the aspects, conversations and themes that stand out. The goal is not to observe or analyze the techniques, mediums or tools used during the artmaking sessions but rather the relational dynamics among participants, how energy changes in the room during different activities, and reflections participants share verbally regarding climate change and mental health. Please see Appendix 3 for the observational protocol.

### **First Session: November 19<sup>th</sup> , 2023**

(2 hours to 2.5 hours)

1. Sabrina will open with a land acknowledgement, introduce herself and the research questions, rationale, and goals to the participants. (~15 minutes) 1pm – 1:15pm

Opening spiel:

Hi, my name is Sabrina Guzman Skotnitsky. I am a 2<sup>nd</sup> year Master’s student in Environmental Studies in the Political Ecology Lab supervisor by Dr. Kara Shaw. This research originated out of my own experiences with climate anxiety and how I’ve used my art practice to help me process difficult emotions. I became curious about whether these techniques had been tested in research, and how they might be used to help other young people who were struggling with climate anxiety like me. Most of the research out there focuses either on defining/categorizing emotional responses to climate change or arts-based approaches to supporting mental illness, trauma etc. but none that really sought to develop art tools to address climate anxiety specifically. So, my core research questions are:

1. Can visual artmaking and dialoguing help young people process climate anxiety and related eco-emotions? If so, how?
2. In what ways can these arts-based approaches help youth generate active hope, if at all?

I’m happy to elaborate on this further as we proceed. For example, eco-emotions refer to the full range of emotions we can feel toward the environment including what we might think of as more

positive emotions. My intention is that this project is co-created with all of you, and while I am facilitating this process, I am by no means the expert. I hope you will all feel comfortable sharing and that you'll feel that your input is valued and respected, because it is! In a few minutes we'll start seeing group norms together to ensure that this is a brave space where folks feel comfortable to share. Before we dive into that process, I'd love for you all to introduce yourselves.

2. All the participants will introduce themselves and express however much they wish about why they decided to participate in the study and their relationship with climate anxiety. (20 - 30 minutes) 1:15 – 1:45pm

- Example Question (EQ): “Please introduce yourself with your names, pronouns (if you feel comfortable), and whatever you wish to tell us about why you decided to participate in the study and your relationship with climate anxiety. Please share as little or as much as you feel comfortable.”

3. Sabrina will facilitate the collective setting of group norms for the three sessions. As part of this, youth will be invited to write down their suggestions for guiding principles of working/being together on flipchart paper. Sabrina will also provide some norms, listed on page 4. (15 - 20 minutes)

- EQ: “What are some guiding principles or group norms that we want to set up?”

1. Participants can decide between individually experimenting with different visual art making tools and mediums or participating in a collaborative art making exercise [note that no participants chose the collaborative option in the first session]. Sabrina will be there to answer any questions participants may have. (45 minutes, let them know when 20 minutes has passed, approx. halfway mark). 1:45pm – 2:30pm.

4.1 The exercise is adapted from *Creative Therapies for Climate Emotions*:

In a group of 4-8, using a large piece of paper, create a group piece following the prompt: when you think about climate change, what are the feelings or thoughts that immediately arise? You can work together to add elements, or all add your components and see how they might work together.

“Use whatever art supplies call out to you and allow each group member to take turns adding whatever they wish based on theme. What images, words, etc. reminds you of this theme?” (Constance et al, 2023, 10)

What colours or textures might correspond to these feelings?

4.2 “When your piece is finished, ask each group member to share what emotions the piece evoked and share what they added and why. How does doing this in a group differ from doing it alone? What does the group activity mean to you regarding the climate crisis?” (Constance et al, 2023, 10). Depending on time, participants may or may not have time to explore all the above questions. They will have some time to debrief in the larger group though.

5. Sabrina will facilitate a closing discussion and gather any questions the participants have about the next two sessions (20 - 30 minutes) 2:30 – 3:pm (or longer if needed)

- EQ: “As we conclude, we’ll have a go around for any reflections or questions you may have. As with our opening conversation, please feel free to share as little or as much as you feel comfortable. You may also choose to pass.”

### **Second Session: November 26<sup>th</sup>, 2023**

(2 hours - 2.5 hours)

1. Sabrina will open with the land acknowledgement and check in question relating directly to the theme climate anxiety. All participants will have time to express as much or as little as they want to in response. They may also choose to write down or draw their thoughts. (20 - 30 minutes) 1pm – 1:30pm

- EQ: “To start today, I want to invite you to consider your relationships with climate emotions. This could be emotions like climate anxiety and grief but could also be about love and hope. You can write down, draw and/or verbalize your answer. As we go around you can share as much or as little about this.”
- “Additionally, if you’ve had any insights or reflections since we met last, and any questions or concerns you have going into the session today, please feel free to share those.”

2. All participants will be invited to create art related to their response or other thoughts/feelings they have regarding their experience of climate anxiety. This may be one or more distinct pieces of art. (45 - 60 minutes, ask around 40 minutes if additional time is required) 1:30 – 2:30pm

3. Sabrina will facilitate a closing discussion gathering any insights or reflections participants have on the subject of climate anxiety and/or the artmaking process. Participants will be encouraged to write down things that are shared that they find significant on a flip chart paper that the whole group will have access to as a resource. (20 - 30 minutes) 2:30pm – 3pm

- EQ: “To close our session today, I invite everyone to share as much or as little as you feel comfortable about the artmaking process and/or discussion we had today. Like last time, you can choose to pass if you don’t want to share with the group at this time.”

### **Final Session: December 3<sup>rd</sup>, 2023**

(2.5 - 3 hours)

1. Sabrina will open with the land acknowledgement and check in question related to the theme “What might a climate resilient and socially just future look like?” All participants will have time to express as much or as little as they want to in response. They may also choose to write down or draw their thoughts. (20 - 30 minutes) 1pm – 1:30pm

- EQ: “As last session’s theme was a bit heavy, I wanted to ensure we were focusing our last session together on our hopes and dreams for the future. Often, we are only shown apocalyptic and scary images of the future, which can feel very disempowering. I would love to hear from you what your visions are for a future that is climate resilient and socially just. Feel free to write down or draw your thoughts as well.”

2. All participants will be invited to create art related to their response or other thoughts/feelings they have regarding their visions about climate resilient and socially just futures. This may be

one or more distinct pieces of art. (45 - 60 minutes, ask around 40 minutes if additional time is required) 1:30 – 2:30pm

3. Sabrina will facilitate a discussion gathering any insights or reflections participants have on the subject of “What might a climate resilient and socially just future look like?” (20 - 30 minutes) 2:30pm – 3pm

- EQ: “I invite everyone to share as much or as little as you feel comfortable about the artmaking process and/or discussion we had today. Like last time, you can choose to pass if you don’t want to share with the group at this time.”

Sabrina will explain next steps for the research process, including what is required of the participants for the end survey and end interview, how their data will be used in the thesis, and remind them of their options around consent and confidentiality. She will then invite any closing questions and/or thoughts from the participants, including reflections on the three artmaking sessions as a whole. Sabrina will mention that she’d love to figure out ways to stay connected and take action together on climate/mental health issues. (~30 minutes) 3pm – 3:30pm – and more if needed

- EQ: “As this concludes our three artmaking sessions, I’d like to invite any closing questions or reflections you have about the process as a whole and the next steps with the research.”

### **Group Norms**

- Please respect confidentiality.
- Zero tolerance space for racism, homophobia, ableism, transphobia etc.
- People have different levels of comfort/experience with artmaking and should be given the freedom to experiment. Please do not offer advice on how to do something unless explicitly asked.
- When sharing in the circle, please use I language instead of you, we, or everyone. For example, avoid making universalizing statements or generalizations which may not apply to everyone such as “you know how you hate it when...” Please speak from your own personal experience.
- This is not a problem-solving space - please do not offer advice or solutions in response to what other participants share. I have a list of resources on mental health and climate change that I will share with all participants. However, in our dialogues it is important that participants can share freely without feeling like others will try to psychoanalyse them or ‘fix’ their problems.
- It may be helpful to use trigger warnings before sharing content related to abuse, sexual harassment/assault, suicidal ideation etc. and/or consider if this type of content is necessary to share in this space at this time.

Three Principles from Climate Host Training (One Resilient Earth, 2023)

#### 1. Open Sharing

- All emotions are welcome and ways of expressing
- As much time as you need, we don’t interrupt but just be mindful about the amount of people in the room and enough time for everyone

- It's okay to not to share and just be present and listen in

## 2. Deep-Listening

- You are there to listen (not to fix)
- Do not feed the inner critic
- Emotional boundaries while listening and regulating your nervous system through deep breathing and contact with physical objects (chair/ground)
- Empathize, be compassionate and show your own emotion if you feel called to do so

## 3. Confidentiality

- No recording
- No mentioning conversations in other contexts
- No obligation for people to share their organization or other identifying things when they join

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