CREATIVE RESILIENCE: ART MAKING AS A SURVIVAL STRATEGY IN TIMES OF CRISIS

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ABSTRACT

This research examines if and how art making can function as a tool for resilience in response to emotions experienced in relation to the ongoing climate crisis. While scholarship has largely focused on audience perceptions or therapeutic settings, there remains a gap in how climate emotions are described by those who experience them and how art making may play a role in coping with the emotions in the context of climate crisis. To address this gap, three semi-structured interviews were conducted with artists who work with ecologically engaged art. A qualitative within-case analysis, followed by thematic synthesis, identified core insights: sensory and embodied engagement might play a pivotal role reorienting stress and overwhelm, art making allows emotional expression and shifting overwhelming emotions into tangible actions, and has a potential to bridge and connect science, and public understanding. Findings from the interviews suggest art making may form accessible strategies for coping with climate emotions and building emotional resilience. Limitations of this study include a small, non-representative sample, suggesting the need for further research across broader cultural contexts.

Key words: art making, emotional resilience theory, climate emotions, art-based approach, creative coping strategies

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MY STORY

This thesis explores how art making can act as a form of resilience in times of crisis, particularly in the context of emotions impacted by the ongoing climate crisis. My initial entry point into this topic is personal and I present it here as a part of my own story. For much of my adult life, I have moved across countries, languages, and landscapes. Each move required starting again, rebuilding routines, finding new ways to belong, and learning how to adapt. In the midst of this permanence of change, I have been seeking anchors that give me a way to pause and make sense of what is unfolding within and around me. Often, it would be my community in the place where I live. Then I discovered another anchor: the process of creativity or play, which allows me to have something for myself, wherever I am. I view my creativity not just as self-expression, but also as a means to navigate uncertainty without being consumed by it. Throughout my degrees, I began to notice examples of how others use creativity in similar ways - to mourn what was lost, to reimagine the future, and make sense of reality.

I write this thesis as a young researcher who has lived in multiple cultural and ecological contexts. Often, I have been both an observer of these contexts and a participant simultaneously. This mobility has shaped my appreciation for the ability to adapt while staying rooted in meaning. My positionality is informed by both personal and collective experiences of change, shifting political realities, cultural dislocation, and, increasingly, the growing impacts of the climate crisis. In studying creative resilience in the context of environmental change, I position myself as both a witness and a researcher.

Before my journey started, I was growing up in a country I felt both connected to and kept at a distance. My relationship with home has never been simple. It is a constant negotiation between belonging and estrangement. It is a balance between the desire for rootedness and the impulse

to drift away. For years, I lived abroad, thinking I could outpace the shadows of politics and environmental realities back home. I carried the quiet, naive conviction that life would be lighter when lived far from the weight of my origins.

Yet, recently, life brought me back for a short while. I returned to the place I had learned to view from afar. Walking through familiar streets, I was startled by how the textures - cracked pavements and the silhouettes of panel apartment blocks - stirred something long-forgotten. I wandered into the field behind my old secondary school, a place I had once despised, and found myself lingering. The light fell differently now. I visited my beloved grandfather and sat next to him on the same bench he built for me over twenty years ago, in the kitchen of the country house that had remained untouched for decades. I watched the dust play and dance in the sunlight. I felt, unexpectedly, that I belonged.

I picked up my camera and began photographing the landscapes I thought I had outgrown. The grey concrete, the worn stairwells, and the stubborn weeds pushing through the asphalt. Through the lens, I decided to see beauty in what I once called ugly. When I shared the photographs, someone told me, “I never thought this dump could look so pretty in a picture.” In that moment, I disagreed. I no longer saw the place as a “dump.” I realized I was visualizing my own complicated, melancholic, and nostalgic longing, yet also accepting it. I expressed my love and acceptance for my home by paying attention and noticing tiny details.

I see photography, or any medium and language I choose to express my feelings, as a way to communicate with myself. It allows me to make my own statement and reflect on it without using words. This time, it helped me process this shifting relationship with my homeland. This process was not about idealizing it or ignoring my land’s fractures. It was about recognizing its textures as part of my own. By capturing the cityscapes, I captured a part of myself, ingrained with history and loss, but also with hope and resilience.

CHAPTER ONE: INTRODUCTION

Climate crisis impacts include significant influence on human emotions and mental well-being beyond material impacts such as extreme weather conditions, biodiversity loss, and ecosystems destruction (Brosch and Sauter 2023). The climate crisis realities lead to an increasing number of all kinds of ecological issues, including their emotional impacts, manifesting in higher rates of negative emotional experiences among individuals. This results in a growing academic study on a wide range of eco-emotions which recently are significantly related to the climate crisis and hence referred to as "climate emotions" - as a broad concept referring to affective phenomena significantly related to the climate crisis, including eco-anxiety, eco-grief, and solastalgia (Pihkala 2022). These emotions, triggered by witnessing ecological and climate change impacts or anticipating future risks, are among the most urgent consequences of climate change on mental health (Pitt et al. 2023). They are increasingly recognized as valid and natural responses to environmental change and uncertainty. In the academic literature, however, there remains a gap in a deeper understanding of these concepts and paths for addressing climate emotions that bring emotional distress and worry to an increasing number of people, particularly in the context of the escalating climate crisis and growing levels of environmental awareness (Brosch and Sauter 2023).

There is a lack of study on measures allowing expression of climate change impacts on mental health outside of therapeutic dimension, which calls for developing accessible practices of self-regulation, critical thinking, and emotional resilience to avoid climate denial and avoidance of climate-related information (Skotnitsky 2025). Further research would allow to better understand climate emotions and effective intervention strategies, as well as increase attention to human emotions in climate policy frameworks (Pitt et al. 2023). Given the growing recognition of emotions as a major part of the climate crisis, understanding how individuals

experience these emotions and developing interventions that build on the acknowledgement of climate emotions as natural and valid responses to environmental change becomes crucial.

One potential strategy lies in art making. Research in multiple disciplines and contexts has demonstrated promising effects of art practices on mental health and emotional well-being. For example, art therapy, a form of psychotherapy that involves the use of visual art making widely used in therapeutic contexts, has a positive impact on emotional well-being as it shows to reduce anxiety and depression and other mental health challenges (Bosman et al. 2020). Additionally, art therapy facilitates emotional processing and self-awareness of bodily and mind feelings through non-verbal visual expression of emotions, contributing to improved psychological well-being (Czamanski-Cohen 2023). Findings in eco-art therapy demonstrate the benefits of engaging with art making and the environment, manifesting in emotional regulation, trauma processing, environmental awareness, and feeling of connection (Gulbe et al. 2025). Emerging literature addressing emotions in the context of ecological crises points at potential of environmentally related art making to cultivate a sense of agency among artists (Minkoff 2024). However, less is known about the role of art making as an individual practice of self-regulation or emotional resilience tool beyond therapeutic or group settings, particularly in relation to climate emotions.

In my research, I am interested in the role of art making as a tool forming explicit or implicit strategies to address this gap in accessible practices for expressing and coping with emotional responses related to environmental changes, and for building emotional resilience. Emotional resilience is a capacity to adapt to stressors while remaining engaged in the context, and its development is influenced by internal factors such as emotional regulation and self-awareness and external ones such as community support and cultural context of individuals (Fletcher and Sarkar 2013). In the context of climate crisis, it refers to the capability to acknowledge and process climate emotions rather than repress them (Davenport 2017). To address this, I build

on Mace and Ward's (2002) conceptualization of art making as a dynamic, interactive, and iterative process that comes from the interplay of memory, personal prior experience, emotion, behavioral and environmental context. Their model presents art making as an ongoing cycle of exploration and meaning making, which position art making as the process through which artists may externalize and process emotions. This provides a framework for exploring if artists use their practices to engage with climate emotions.

The aim of this thesis is to understand whether and how art making forms part of implicit and explicit individual strategies for coping with climate emotions and building emotional resilience in the face of the systemic climate crisis. To pursue this aim, I focus on artists working with ecologically engaged art, understood here as a practice that represents environmental issues and seeks to reconnect humans, nonhumans, and ecological systems in relationships of interdependence (Castro and De Marco 2025). Artists working in this field use various media like installation, film, photography, performance, and mixed media, and their practices are situated within a broader ecological and cultural context. Focusing on this group provides a unique angle and allows me to examine practices and reflections of those who are already engaged in art making and are aware of environmental issues due to the nature of their work. Also, it provides insights into how art making naturally functions in the daily lives of practitioners and whether it supports them in processing, expressing or transforming personal emotions related to climate crisis. Such insights will both contribute to academic literature in the emerging field of climate emotions and art, while also being relevant for environmental practitioners, researchers, and students pursuing non-clinical methods of emotional resilience.

To achieve my aim, I present the overarching question of this thesis:

What explicit and implicit strategies for coping with climate emotions emerge from ecologically engaged artists' reflections on their art making processes and how do these relate to the broader societal context of the climate crisis that triggers these emotions?

This question guides my thesis by connecting the artists' reflections on their lived experiences with theoretical understandings of emotional processing and emotional resilience. By asking how artists' experiences of art making and climate-related emotions links to frameworks of emotional processing and emotional resilience, the research analyses whether art making enables key steps of emotional processing such as the externalization and expression of climate emotions, as well as internal factors of emotional resilience such as emotional awareness and self-regulation. Answering this question will ensure a deeper understanding of the identified mechanisms through which art making may function as a strategy for navigating the emotional impacts of the climate crisis.

To thoroughly answer the overarching question, I ask three sub-questions that develop a pathway for collecting and analyzing data. They help me address artists' emotional experiences, the role of art making in processing climate emotions, and finally the implications of these practices for emotional resilience in the wider context of societal crises:

1. How do ecologically engaged artists experience climate emotions and how do their art making practices relate to the processing strategies of externalizing, expressing and regulating these emotions?
2. How do insights from artists' practices apply to understandings of individual, non-therapeutic strategies for addressing climate emotions and building emotional resilience in the context of climate crisis impacts on mental health?
3. How do identified strategies through art making relate to the acknowledgement of the climate crisis as a societal challenge, rather than solely an individual experience?

This thesis contributes to the emerging field of climate emotion and art making by outlining how art practices can serve as a means of understanding, expressing, and responding to the emotional impacts of climate change. It first conceptualizes climate emotions within existing academic frameworks and then analyses insights from artists who work with ecologically engaged themes. The next chapters of this thesis first conceptualize climate emotions within existing academic frameworks and then provide insights from artists who work with ecologically engaged art. Chapter Two provides overview of the existing literature and lays out the conceptual and theoretical background, reviewing two frameworks of climate emotions, one from psychology and one from environmental humanities, and strategies to address these emotions, conceptualizing emotional resilience theory, and describing the role of art in emotional well-being. Chapter Three outlines the research design, presenting my methodology, with particular attention to the qualitative interview approach. Chapter Four presents the results of three interviews with artists, offering within-case analyses of their practices. Chapter Five engages these findings in discussion with the literature, identifying cross-cutting themes on art making, climate emotions, and emotional resilience. Finally, Chapter Six concludes by summarizing the main contributions.

CHAPTER TWO: LITERATURE REVIEW

This chapter outlines how global climate crisis significantly impacts human emotional well-being by reviewing climate emotions frameworks, strategies to address said emotions, the concept of emotional resilience and the role of art making. It describes key concepts and debates over clinical versus non-clinical framings of emotions, examines how emotional resilience is conceptualized and practiced in climate contexts, and turns to arts-based approaches and art making. The chapter introduces emotional resilience as the capacity to adapt to changes, staying engaged in the context and processing difficult emotions rather than repressing them, emphasizing collective and systemic approaches grounded in justice and community support. Art making emerges as a potential emotional resilience practice, proven to support psychological and social well-being, thereby providing a powerful tool for processing climate emotions and fostering connection with the environment.

2.1. Situating the Significance of Emotions in Societal Crisis

It is neither a question nor a doubt that the planet is undergoing drastic alterations due to recent and current activities of members of one particular species populating it - humans. Human activity has altered the planet so significantly that it is now shaping the Earth system, driving climate disruption, ecosystem collapse, and large-scale environmental transformation. These shifts stem from socio-economic systems, such as population growth, the nature of capitalist consumption and market systems, and the development of technologies (Moore 2016, 5-9). These factors have led to the ecological footprint of human activity skyrocketing at an extraordinary speed. As a result, humans had little time to become fully aware of, and adjust to, the scale and pace of the lifestyle impact on the environment and the extent of the shared responsibility, bringing many people to emotional stress and challenges (Youvan 2024, 9-12).

The impacts manifest in species loss, increasing international conflicts and tensions, and migration crises. Future projections point at intensifying trajectory - by 2050, there will likely be the further significant loss of biodiversity brought on by human activities, the sixth mass extinction (Cowie et al. 2022, 643), an increase in conflicts and wars, a growing number of population displacements, and increasing difficulties in agriculture (Li et al. 2022, 3-5). These facts highlight the pressing reality and situate climate crisis as a broad societal challenge with direct implications for human well-being.

Humans remain deeply dependent on ecological cycles, biodiversity, and climate systems, which in turn are influenced by human activity. Due to this interdependency, the scale of environmental, social, and economic disruptions today can directly affect physical existence, but also unsettle mental and emotional well-being (Biswas and Ryan 2023, 41). Dominant responses to climate change emphasize systemic solutions such as decarbonization, energy transition, and international policy frameworks (IPCC 2021; 2022). While essential, these approaches often overlook psychological and emotional dimensions, such as how individuals process, accept, or deny the reality of climate change, and how they emotionally cope with threatening environmental information.

However, it is crucial to look into this dimension as climate change leads to various emotional outcomes in complex ways. For example, emotions relate closely to societal behavior. Experiencing climate emotions can result in burnout, denial, or avoidance (Carvalho and Vilaca 2024; Alves et al. 2025), often mediated by collective psychological mechanisms such as disavowal (Weintrobe 2012). Feelings of distress and despair might result in helplessness and political and ecological disengagement, especially among young people (Clayton et al. 2017). Distress caused by environmental degradation, scientific information, or media coverage may leave people in between feelings of urgency and overwhelm (Budziszewska & Jonsson 2021). Nonetheless, emotions might also act as a catalyst for environmental awareness and political

engagement as a transformative experience that encourages individuals to question the status quo and envision more sustainable lifestyles (Opstelten 2025), and may foster participation, engagement, and activism (Paganini 2025). Research also indicates the connection between experiencing climate emotions and pro-environmental action (Hickman et al. 2021). This duality demonstrates the complexity of emotions and their outcomes, and suggests emotions are powerful factors influencing mental health, social behavior, political life, forming an important part of the societal dimension of the climate crisis. Emotional responses are central to climate crisis in shaping how individuals and societies navigate the ongoing crisis. Studying emotions in the context of climate crisis as a societal issue then becomes crucial as they are widespread, politically significant and central to how humans navigate the world.

2.2. Conceptualizing Climate Emotions

Material disruptions and existential concerns increasingly manifest as forms of mental distress among the population that require support systems (WHO 2022). An influential survey by Hickman and colleagues (2021) focused on young participants and identified high rates of emotional distress related to the climate crisis. Among 10,000 individuals across ten countries, more than 59% of participants expressed strong or considerable concern about climate change, with the majority sharing feelings of sadness, fear, helplessness, and anger, both personally and in relation to wider problems of injustice and government inaction (Hickman et al., 2021). Baum (2025) conducted the first global-scale survey focusing on climate emotions in adults, involving over 30,000 participants across thirty countries. Worry about climate change was the most often reported emotional reaction among participants, with a mean value of 3.80 on a 1-5 scale Likert-type scale. Around 80%, almost four out of five participants, reported being at least "somewhat" worried about climate change (Baum 2025, 5). Emotions such as worry, anger, and sadness had a positive correlation with perceptions of climate crisis, environmental identity, and experience with natural disasters (ibid. 7). These findings suggest that emotions related to

climate change are widely shared across populations, making them a collective widespread phenomenon. This highlights the urgency to situate emotional responses within the broader understanding of the climate crisis as a systemic and societal challenge that shapes collective responses, governance, and possibilities for transformation.

The growing attention to the emotional dimensions of climate change in academia has led to conceptualizations as eco- and climate emotions, which provide a framework for understanding emotional responses to climate crisis. In this context, emotional responses to climate change are "subjective impacts of climate change on mental health" (Doherty et al. 2022). The increasing rates of these impacts have led scholars in psychology, environmental studies, and education to study a wide range of eco-emotions (e.g., Budziszewska and Jonsson 2021; Clayton 2015; Doherty and Clayton 2011; Pihkala 2018). In this body of literature, "emotions" is a general term for various affective phenomena, including feelings, moods and affects that are unconscious bodily feelings. This expanding literature distinguishes between the broader concept of eco-emotions - affective responses to ecological problems, and the more specific term **climate emotions**, understood as "eco-emotions which are significantly related to climate change / the climate crisis / the climate catastrophe" (Pihkala 2022), which highlights the particular salience of climate crisis impacts.

Climate emotions are used as a broad concept that includes a wide range of terms related to the climate crisis, such as climate anxiety, climate grief, environmental or ecological stress, climate trauma, climate despair, climate distress, pre-traumatic stress disorder, and many others (Pikhala 2022). Among this range, particular attention in the academic literature has been drawn climate anxiety, climate grief and solastalgia. **Climate anxiety** is "considerable distress caused significantly by the climate crisis" (Pihkala 2020) and is linked to concern about future changes in a rapidly destabilizing world. **Climate grief** is linked to mourning for environmental losses and conceptualized as "the grief felt in relation to experienced or anticipated ecological losses,

including the loss of species, ecosystems, and meaningful landscapes due to acute or chronic environmental change" (Cunsolo and Ellis 2018, 275). This mourning is related to both tangible losses, such as forests, coral reefs, and seasons and the loss of intangibles including feelings of home, sense of belonging, and certainty. **Solastalgia** is "the pain or sickness caused by the loss or lack of solace and the sense of isolation connected to the present state of one's home and territory" (Albrecht 2005, 43). It reflects the idea of the place-based existential distress felt when one's home environment experiences a significant transformation. In contrast to nostalgia, experienced in relation to a separation from a loved place or home, solastalgia arises while people are still residing in and connected to the decaying environment (Albrecht et al. 2007). Beyond conceptualizing the range of climate emotions, it is also crucial to understand how they are framed in different studies as it directly influences on how to address them.

2.3. Climate Emotions Frameworks: Clinical and Non-Clinical

In the framing of climate emotions, there has been an evident persistent difference between viewing these responses through a pathological lens and recognizing them as valid, even adaptive, responses to environmental change. Research in psychology has contributed to documentation of a range of emotional responses to climate change yet often framing them through the lens of mental health impacts (Doherty and Clayton 2011). Climate emotions are often described in clinical terms such as eco anxiety or eco grief, with parallels drawn to anxiety disorders or depressive symptoms. The American Psychological Association's report (Clayton et al. 2017), for example, characterized distress related to climate change and ecological issues primarily in terms of individual pathology, highlighting symptoms including anxiety, post-traumatic stress, and depression. While this framing validated the very existence of psychological impacts, it also positioned climate emotions within the language of individual

dysfunction and responsibility as symptoms requiring management or therapy, thus individualizing a phenomenon whose root causes are collective and systemic.

Within this perspective, interventions have been directed at helping individuals regulate or contain emotional responses, either through institutional mental health frameworks that emphasize individual resilience, or through collective and cultural therapy practices. Therapeutic approaches to climate emotions within this framing include individual and group therapies based on behavioral approaches, cognitive strategies, and emotion-focused coping (Ibrahim 2024). Institutional frameworks in this context may place the burden on individuals to adapt by improving their resilience or regulating their emotions, reflecting neoliberal values of self-governance and personal accountability (Fey 2021), which may shift the emphasis away from the societal nature of the climate crisis. However, more recent therapy frameworks within psychology have sought to broaden the scope of response to climate-related distress beyond these approaches. The Power Threat Meaning Framework (Johnstone and Boyle 2018) takes a non-pathological approach, highlighting ways in which individuals and communities make sense of climate-related trauma. The GENAIL holistic wellbeing framework emphasizes relational dimensions of mental health, such as connections with oneself, with others, and with the natural world. Other non-clinical methods described by Kemp and colleagues (2024) include systemic positive psychology, eco-empathy, participatory storytelling, mindfulness, and self-transcendent experiences. These approaches indicate a growing recognition of climate emotions as more than individual symptoms.

In academic fields of environmental and climate humanities and social science, such emotions are framed as legitimate responses to the worldwide threat of climate change, advocating for political and relational interpretations (Opstelten 2025). Pikhala (2020) frames climate anxiety as a sign of ethical and environmental awareness and ecological sensitivity. Similarly, ecological grief has been been conceptualized as a “natural and legitimate response” to the

collapse of connections with the environment (Cunsolo and Ellis 2018, 275). These conceptualizations align with Kemp et al. (2024), who conclude that climate emotions are best understood as natural, reasonable, and politically significant responses. In fact, anyone with access to climate information and growing environmental awareness may be vulnerable to experiencing climate emotions, as Pitt and colleagues (2023) highlight, even when individuals are not directly impacted by climate change, understanding the escalating threat posed by the ongoing worldwide climate crisis can lead to emotional discomfort. Such framing emphasizes the societal relevance of climate emotions, representing the collective recognition of the climate crisis rather than disregarding emotions as individual conditions or dysfunctions and points toward the need for responses that integrate emotional, cultural, and political dimensions.

2.4. Emotional Resilience in Climate Emotions Literature

2.4.1. Conceptualizing Emotional Resilience

Recognizing climate emotions as legitimate and collective responses opens space to studying emotional resilience as a part of a broader coping strategy for living with and addressing emotions in the face of ongoing climate change. In ecological systems research, resilience is the capacity of ecosystems to absorb disturbances and adapt to disruptions while preserving their functions and identity (Holling 1973). Thanks to the malleability of the term, it is also used in the context of conceptual framework for understanding how individuals and communities tolerate, adapt to, and even thrive during crises in various contexts. In the field of psychology, emotional resilience is a dynamic process involving the successful adaptation of individuals to stressors, which is shaped by a range of protective factors, including personality, motivation, confidence, focus, and social support that emerges through interaction between individuals and their environment (Fletcher and Sarkar 2013). In her book “Emotional Resiliency in the Era of Climate Change,”, Leslie Davenport (2017) conceptualizes emotional

resilience as a human capacity that involves staying present, grounded, and engaged in the face of difficult emotions catalyzed by climate change (Davenport 2017). According to emotional resilience theory, developed and studied by Yoesoep Edhie Rachmad (2022), the core concept of the theory suggests that "emotional resilience involves emotional flexibility, the ability to bounce back from difficulties, and the utilization of effective coping strategies" (ibid., 2). Rachmad also notes that the theory "emphasizes the importance of social support, emotional regulation, and self-awareness in the process of building emotional resilience" (ibid., 3). Emotional resilience is commonly understood to develop over time, and not as a fixed quality.

In the climate emotions literature, emotional resilience is studied in relation to persistent, often expected distress caused by climate change, rather than specific traumatic events. A pluralistic understanding of emotional resilience is evident in the literature. This understanding suggests that multiple factors contribute to emotional resilience development including both individual traits like emotional intelligence, emotional regulation, earlier life experiences as well as external conditions and cultural, political, and ecological contexts (Pahwa and Khan 2022). Resilience is studied as a socio-ecological and political phenomenon, influenced by disparate access to resources, power, and location (Cote and Nightingale 2011; Graybill 2012). According to Adger (2000), who builds on both social theory and socio-ecological systems thinking, resilience should be grounded in considerations of justice, cultural identity, and local knowledge, particularly in relation to ecological change and degradation, to enhance adaptability and transformation. Recent work has increasingly focused on the collective and systemic aspects of resilience. Qiu and Qiu (2024), for example, build their research on Indigenous philosophies and propose a model of collective emotional resilience, grounded in feelings of belonging, shared cultural practices, and ecological interconnectedness, challenging

conventional paradigms that focus on individual self-regulation and view resilience as a relational equilibrium with the natural environment.

2.4.2. Building Emotional Resilience in Climate Context: Frameworks and Practices

Davenport (2017) suggests a process-based framework for building emotional resilience. The framework follows a sequential and embodied structure. It begins with an acknowledgment of climate emotions such as anxiety, grief, and distress, then moves into emotional awareness through mindfulness and somatic or embodied practices, and introduces resilience-building tools like narrative reframing and grounding techniques. The author positions creative expression as one of the central resilience practices, which allows individuals to access layers of experience that may resist linear or verbal articulation, and to transform rather than suppress emotions (Davenport 2017, 45). This framework outlines a general process for developing resilience and highlights the role of acknowledgment, awareness, and creative expression in resilience-building.

Scholars applying a non-clinical lens to emotions in climate literature have outlined resilience practices in relation to particular climate emotions. Eco-anxiety is often met with resilience interventions through activism, meaning-making, peer connection, and emotional regulation (Ojala 2023; Stanley et al. 2021). Climate grief is addressed with practices of mourning, ritual, and community-based practices as forms of resilience (Cunsolo and Ellis 2018; Opstelten 2025). Solastalgia, rooted in place-based distress, requires cultural practices and embodied connection to land and community to be addressed and expressed (Albrecht 2005; Galway et al. 2019). Among alternative approaches, scholars suggest ecotherapy and arts-based approaches (Ibrahim 2024). Based on ecopsychology, ecotherapy approach emphasizes environment's function as a "forgotten ecosystem service" (Summers and Vivian 2018, 1) and

views human mental well-being as linked directly to ecosystem health. Common practices promoting stress reduction, attention restoration, and positive emotions like awe, tranquility, and hope include gardening, wilderness therapy, outdoor talk therapy, and green fitness. Natural environments improve resilience and life satisfaction, and there is evidence of advantages for anxiety, depression, trauma recovery, and cognitive functioning. However, scholarship lists potential disadvantages of this approach like unequal access to safe and healthy green spaces, making it harder to implement for urban communities as well as inadequate understanding of ecotherapy effects since increased connectedness to nature can be a risk factor for increasing anxiety and grief (Ibrahim 2024, 14).

Art-based approaches appear across different studies as this approach is suggested to assist in externalizing and processing complex emotions, creating a symbolic narrative, and building community and rational healing (Chesnut 2022; Van Lith 2016). Arts-based and creative approaches offer another unique path for addressing the emotional dimensions of climate change (Ibrahim 2024, 15). Artistic practices may provide a non-verbal channel for communication and release of emotions and building connections with others. These practices include but not restricted to many different forms and media of expression like visual art, music, poetry, performance, and can generate both individual catharsis and collective meaning-making (Jeffery 2024). Given the relevance of arts-based approaches to this study, they will be outlined in more detail in the following section.

2.5. Art Making and Climate Emotions

Art-based approaches are recognized to form practices that supports psychological and social well-being. The World Health Organization's review on arts and health synthesized more than 3,000 papers, concluding that engagement in art practices enhances mental health, emotional regulation, and social connectedness via various mechanisms, including stress alleviation,

meaning-making, and improved coping abilities (Fancourt and Finn 2019). A meta-analysis by Zhang and colleagues (2014) further shows that art interventions significantly reduce anxiety. Nature-based art therapy, which combines expression through art making with direct or symbolic interaction with natural settings, demonstrates efficacy in enhancing emotional regulation, processing bereavement, fostering social support, and cultivating ecological identity (Gulbe et al. 2025).

Findings in art therapy and art-based approaches situate art as space for processing emotions by shaping abstract feelings into more tangible, relatable, and practical. Trautwein (2024) presents a multidisciplinary study for the role of art making in emotional recovery, especially when dealing with trauma, loss and grief. He emphasizes that time of healing necessitates active participation through emotional expression, with art functioning as a distinctive, non-verbal medium for such engagement. Trautwein synthesizes insights from neuroscience and psychology to illustrate that art facilitates the externalization of internal emotional distress, transforming the abstract into a tangible and thus more controllable and manageable forms. Other studies highlight the importance of community and participatory dimensions in emotional expression, which forms emotional processing. Skotnitsky (2025) and Chesnut (2022) emphasize the significance of creative environments. In these creative environments, emotions can be expressed, communicated, and reinterpreted collectively, transforming personal feelings such as loss or worry into relational experiences of support and active hope. Similarly, Kirakosyan (2019) and Acker et al. (2025) underscore the potential of community-based arts approaches, though they note the limited empirical evidence across diverse sociocultural contexts. Art becomes the medium through which individuals both confront and process climate emotions.

However, much of the scholarship at the intersection of art and climate change has focused on the *perception* of climate art, art as a climate-change communication tool, and audiences'

experience and interpretations. For example, Roosen and colleagues (2020) conclude that climate art consumption facilitates the processing of emotions such as sadness, worry, or hope in ways that scientific communication frequently fails to do, utilizing ambiguity, symbolism, and embodied experience to provoke deeper perceptions and emotions in audience. Another study highlights art's potential to motivate pro-environmental action by offering space for reflection and memory, and overcoming psychological barriers to climate change among audiences (Kaufman et al. 2023).

Despite this emphasis on audiences, literature on art making and climate change has been gradually emerging. According to Lee et al. (2024), art is accessible, rooted in human experience, and inherently expressive, and engaging in art making practices may empower individuals to regain the feeling of control over their behavior and emotions. Art practices may also activate mental processes necessary for resilience, including the expression of emotions, embodied awareness, and meaning making (Van Lith 2016). It can also help support emotional regulation and coping through self-reflection in stressful situations and non-verbal expression (Karakasidou et al. 2024). Fiona MacDonald (2022), for example, describes her artistic practice in visual art as a ritualized manifestation of mourning in response to ecological change. She illustrates how ambiguous loss such as the sorrow linked to the suffering or extinction of nonhuman species can be addressed by intentional and sustained art practice. In her story, art builds a connection with the non-human world and the sharing and expressing emotions.

2.6. Mapping Research Gaps in Climate Emotions and Art Literature

Climate emotions field is still an emerging one compared to other interdisciplinary environmental studies. Reviewed climate emotions research has mostly focused on two areas: (1) conceptual work that categorizes and defines these emotions such as climate anxiety, grief,

or solastalgia, and (2) large-scale surveys that map the scale and demographics of emotions. These contributions are crucial for developing this academic field, yet they leave key gaps. First, they often lack qualitative insight into how individuals actually experience, describe, and cope with climate emotions beyond academic taxonomies, reducing deeply human, subconscious feelings to abstract categories and academic definitions. Second, much of the relevant literature restates the problem, acknowledging climate emotions as common experiences without providing tools or guidance on how such emotions can be expressed, processed, or transformed in everyday life outside of clinical or therapeutic settings. Hence, the problem is outlined in the literature but research on accessible solutions is lacking.

At the intersection of art and climate change, the literature has largely focused on art's communicative role, and how climate art is perceived by audiences in relation to pro-environmental behavior. Findings in research on art-based approaches to emotional coping recognize the positive emotional impacts of art, yet they have been predominantly studied as art therapy within psychology and neuroscience and as community-based practices designed for participants. Although theoretical reviews and meta-analyses suggest art practices can support emotional regulation, expression, and coping, very little work explicitly connects art making itself with the experience of climate emotions. Qualitative research that centers artists' own reflections on their art making practices in relation to climate emotions remains scarce (Minkoff, 2024), while artists are subjects of emotional knowledge, which creates space for alternative epistemologies and ways of knowing and feeling that differ from clinical or cognitive frameworks.

CHAPTER THREE: METHODOLOGY

Based on the research gap identified through the literature review, I developed a non-clinical perspective on climate emotions, which informed my methods, as I detail in the following. My specific methodological ambition led me to three artists whose practices are ecologically engaged and with whom I was able to conduct semi-structured expert interviews. The small sample size, my own subjectivity, and a few practical constraints impose some limitations, which I was able to address to nonetheless generate rich and detailed insights into non-clinical approaches to climate emotions.

3.1. Research Methods

3.1.1. Non-clinical Approach to Climate Emotions

For this research, I adopted a non-clinical perspective on climate emotions, recognizing them as natural and reasonable responses in the context of wider societal challenge of climate crisis. Consequently, I focused on non-pathological tools to deal with ongoing crises that would allow individuals to engage with climate emotions constructively instead of avoiding or denying them.

Out of different available tools, this thesis focused on art making, including visual art, storytelling, writing and other forms of art practice. I address the research gap by looking at the ways in which art may offer coping strategies and resilience-building practices.

In this thesis, real-life experiences of research participants and emotions and knowledge produced by the practitioners in the field are valued as legitimate sources of information.

This work used a qualitative research approach, with the aim to get a rich understanding of how artists reflect on and interpret climate emotions and their art practice. Qualitative research is

especially useful for exploring complex, context-dependent phenomena in depth, focusing on participants' views and interpretation (Merriam and Tisdell 2015). The objective was to provide a comprehensive and detailed narrative of artists' experiences with art making as a potential part forming strategies to address climate emotions and as an approach for emotional resilience amid climate crisis, avoiding generating statistically applicable conclusions.

A purposive approach was used to find information-rich cases, "those from which one can learn a great deal about issues of central importance to the purpose of the inquiry" (Merriam and Tisdell 2015, p. 96). Specifically, artists whose work is engaged with ecological themes and who exhibit awareness of climate-related challenges in their line of work, and who agreed for their insights to be shared in open access research were selected. Further selection criteria included engagement in the knowledge production on ecological subjects (e.g., exhibits, books, writings), capacity and willingness for reflecting on the emotional aspects and their art process, and accessibility, whether physical or virtual, for interviews during the study's designated duration.

For practicality, artists who have been exhibiting their works in Vienna were selected. Three individuals who met these requirements and consented to participate were:

- Christina Gruber, a professional artist and freshwater ecological working with visual art, sound, sculptures;
- Liljana Mead Martin, a professional artist and environmental researcher, working with sculpture, installations, paper, wood and mixed media;
- Lorena Moreno Vera, a professional art curator and writer, working with writing, storytelling, site-specific art.

All three artists' names are mentioned in this research as the artists explicitly consented to being named and to having their reflections and direct quotations included via an informed

consent form that outlined the project description, aim, interview process, data protection measures, interviewee's rights, including the option to retract and refine their consent. The artists gave their permission to use their role, affiliation, organization and the interview data in this thesis that resulted from the interviews. Their names are also mentioned because this research centers on their particular approaches to art making, hence referring to them directly provides clearer context for their perspectives and understandings of the results and artists' rich inspiring practices.

3.1.2. Data Collection

The three interviews were semi-structured using open-ended questions as this framework guaranteed the discussion of all important topics while permitting adaptability and flexibility to pursue new topics of discussion and accommodate the unique views and experiences of each participant. The selection of semi-structured interviews was guided by the qualitative nature of the research and the emphasis on individual lived experience. This approach is helpful for collecting comprehensive, detailed and nuanced narratives in participants' own words, especially in studies concerning creative practices and meaning making (Merriam and Tisdell 2015; Van Lith 2016).The interviews aimed to understand emotional responses to climate change, the impact of emotions on art work and strategies for emotional coping art making may form. The initial interview guide (Appendix 1) was used during interviews, central questions remained the same throughout interviews, however wording and order of the questions was changed and improved for each interview based on the flow and context.

Interviews were conducted both in person and online in August 2025, each in the duration between 60 and 120 minutes. Interviews were conducted in English. All were audio-recorded with participants' consent, either using the in-built iPhone voice recording app, or using the

recording feature on Zoom platform, and transcribed verbatim using transcription software TurboScribe.

3.1.3. Data Analysis

To analyze expert interviews, this research followed Merriam and Tisdell's principles for qualitative data analysis, using interpretative approach and focusing on extracting meaning from participants' narratives rather than quantifying patterns or formulating generalizations. First, each interview transcript was read through to achieve a thorough understanding of and familiarity with the topic. In the first reading, I was making notes and selecting parts of the text that would talk about a particular topic of discussion in depth. Particular attention was paid to sentences, concepts, views and metaphors related to the study topics and research questions. These notes developed into the creation of codes that represented the core of certain text parts.

Later, I conducted a within-case analysis (Merriam and Tisdell 2015), creating a descriptive and interpretative narrative for each interview that represented the participant's view independently. The key components from each narrative were synthesized into conceptual categories that represented the primary areas of insight throughout all interviews, without pursuing statistical representation. This methodology supported the preservation of each artist's unique voice, positionality and context. Also, it produced a series of themes that together illustrate if creative practice may function as a resilience-enhancing activity in response to climate-related stress.

3.1.4. Research Limitations

The limited, non-representative sample of three participants makes the conclusions inapplicable to all artists or to larger communities. The objective, however, was not to attain statistical representation, but to get deeper, comprehensive insights from information-rich cases and

individual experiences. Moreover, the data was conducted in a form of self-reported accounts and stories, that are influenced by individuals' recollections, interpretations, and openness in sharing, which makes the data subjective.

Logistical and practical considerations influenced the limited selection of participants. Artists were selected partly based on their availability, notably those who had previously shown in Vienna. Also, this research that was conducted in July and August 2025, presenting time constraints due to limited availability of professionals during summer break.

Despite these limitations, the qualitative, semi-structured expert interviews still allowed participants to articulate their thoughts comprehensively and freely, providing detailed data of their emotional and creative processes. The adaptability of this approach allowed the pursuit of unforeseen ideas that could have been overlooked in more inflexible methodologies.

3.1.5. Research Ethics

To write my thesis, I followed Central European University Ethical Research Policy and Guidelines and prioritized informed consent, transparency, and respect and justice for participants when planning, designing and carrying research. All interviewees were provided with an informed consent form outlining the project aims, interview process, rights regarding data use, and data protection measures. Each artist signed the form, explicitly granting permission for their names, roles, and quotations to be used in this master's thesis. Participation in this research was entirely voluntary, and interviewees were informed that they could withdraw their consent or request the deletion of their data within a specified timeframe. Data storage was secure, and only the researcher and supervisor had access to recordings and transcripts of the interviews.

I position myself as a young, white, Russian-born woman (she/her), educated in Western and Central Europe and in East Asia in the fields of environmental studies, international relations, and regional and international development. My research is inevitably shaped by these academic traditions, though I am committed to questioning their dominance. My personal concern about climate-related issues and the future makes me more prone to support pro-environmental worldviews in my interpretation of the participants' statements. My engagement with creative practices and connections to artistic communities gave me a sensitivity to creative processes, though I lack professional training and knowledge in visual studies, which limits my understanding of artistic concepts. Personally, I have often turned to creative practices as a way to take a break and quiet my mind, express my emotions and reflect. This combination of professional concern for climate-related challenges and personal experience of art making explains my interest in exploring how artists relate to resilience and climate emotions through their practice. Researcher bias is an inevitable factor in this qualitative analysis, especially since I have personal and professional interests related to the subject of this study. Nevertheless, I agree with Merriam and Tisdell (2015) that subjectivity may be a defining feature, rather than flaw in qualitative research because of the depth of perspective it provides. I was determined to implement transparency and reflexivity by maintaining analytical notes. To ground findings in the participants' words, I reflect their views including multiple direct quotes describing the results on the interview.

CHAPTER FOUR: RESULTS

In this chapter, I present findings from three expert interviews with artists who work with ecologically engaged art. I first describe the interviewees' recent projects to give a better understanding of their practice and approach using interviews and artists' resources. Findings are structured as within-case analyses, with each participant's observations documented separately. I present the results in the order of themes identified through analysis.

4.1. Art Through Engagement and Reflection

I would like to start with results from the interview with Lorena Moreno Vera, and share reulsts and direct quaotes from *Interview 1 (I1)* an independent curator and writer, who started describes her work with the concept of interdependency, rather than independence, by explaining that her work is never fully detached from the work with others.

In her work, Lorena is interested in natural and ecological phenomena as a means for alternative narratives. She often explores socio-ecological interconnections and broader ecological, natural, and physical themes. In her practice, she engages sensory experience, the interconnection between human and non-human worlds, and the environment. She often uses site-specific and participatory methods, incorporating materials and processes directly linked to ecological themes.

When asked about her emotional responses to climate change, Lorena described a combination of grief, hopelessness, and overwhelm, as well as moments of hope and connection. She said:

> Sometimes, yes, I do feel helpless, you start seeing so many things. I don't know if I could call it catastrophic. It's just like a living planet responding to whatever is happening. So, it's like, yeah, it's catastrophic for humans.

Talking about socio-ecological issues, Lorena shared that her work aimed to "make people notice what is already around them" and to create experiences where audiences could encounter the environment in a direct and personal way. She explained that emotional resonance was an important outcome: "If they can feel something, maybe they can care for it."

Her recent project, *The Way of the Water*, was an artistic and public space "parcours" staged in St. Pölten, inviting 24 Austrian and international artists to think of ways to "establish a collaboration with the river". The research examined the ecological history of the Dresden River and the Mühlbach, including regulation, hydropower utilization, and the creation of artificial lakes from former forced labor camps. Artists engaged with rivers from historical, mythical, musical, and visual perspectives, while partnerships included fishing organizations, biologists, environmental historians, and activist groups. According to Lorena, the project demonstrated how water can "transform into various entities", indicating that rivers are never static and that, depending on how they are used, they can manifest as political actors, living habitats, sources of energy, or cultural memory. In practice, the parcours took the form of a sequence of site-specific pieces placed beside the rivers, forming a path where visitors could experience sound installations, live performances, and artistic interventions right in the middle of the landscape. This arrangement highlighted water as a collaborator in forming the form and rhythm of the artworks, in addition to being an object of expression. In addition, the interdisciplinary collaborations demonstrated how art can work as a mediator between history, science, and public space by firmly establishing the project in local ecological knowledge and activism.

Art as Multi-Sensory Engagement

Lorena frequently engages with sound in her work, describing it as an embodied experience and alternative form of communication, which could be instrumental in processing complex emotions, "it is very haptic, like a very touchable sense". In her practice, sound serves as a

language of connection, enabling her to establish affective communication with both human and non-human environments. She explains the physical and vibrational nature of sound, which transcends mere hearing and requires awareness and presence in the environment, as it is through vibration that sound is produced. She uses a metaphor of thunder:

> the physicality of it demands lots of senses… for example, you see the thunder, you hear it and then everything trembles. So, in case you would be blind or deaf, you would still feel this tremor…for me, this is the possibility that it allows because it embeds so many senses at once

She then draws a link between her work with sound and her own experiences of earthquakes in Mexico. She remembers that earthquakes "literally shake you", and each new occurrence remains surprising in its magnitude and impact. This physical interaction reflects her characterization of sound as a phenomenon that transcends cognitive comprehension to have an immediate impact on the body. Earthquakes and sound function as vibratory phenomena that disturb, overwhelm, and affect individuals both physically and emotionally. In her work, Lorena aims to create experiences that mimic this embodied immediacy by utilizing sound, as this enables people, even those who have never experienced these natural events firsthand, to feel the emotions they evoke.

This method also applies to her collaborative projects, such as the collective Las Chulas, which utilizes sound and field recordings to map geographies and document how people in fishing towns "read the water." Sound serves as a means of learning and connecting with others. Lorena compares conversation to a haptic practice, saying that tone, rhythm, and presence may make connections very touching.

Art as an Outlet for Reflection

Another theme that emerged in the interview was that of art as a potential outlet in two different contexts – through Lorena's writing about art, and through her understanding of art as a bridge

between people of different professional background. She explained that her essays and curatorial texts often carry personal elements, and in this way provide her with an channel for reflecting on and processing feelings of overwhelm, helplessness, or sadness that arise when she learns new information and news regarding issues of biodiversity, for example. She explains:

> I do it [expressing emotions] in the writing. Of course, I guess the writing reflects a bit. It's a bit more tamed. But I think actually most of my texts have very personal notes. Yeah, that's another outlet [for working through feelings of helplessness, sadness, or overwhelm]. How can I address these sorts of feelings of helplessness or being challenged or overwhelmed, and amazed by it altogether?

In this way, writing becomes an integral part of her creative practice, as it enables Lorena to express her feelings in a thoughtful and contemplative manner.

In addition to the context of writing, Lorena believes that art serves as an outlet for allowing people of different backgrounds to open up about emotions they encounter in their work. This openness is particularly important in interdisciplinary collaborations. Lorena observes that artistic methods can sometimes help professionals from different fields engage in new ways, loosening the constraints of their usual frameworks. For Lorena, art provides a safe and joyful environment where feelings such as helplessness such as her own reactions to melting glaciers or species extinction, can be redirected into curiosity and alternative imaginative exploration:

> I think it's a good means to open possibilities. Because precisely, it's like, okay, let's play a bit. What could we do? What would happen if we did this or if we seek to establish this and that? And this also helps sometimes people from other disciplines to open up.

4.2. Art Practice of a Freshwater Ecologist

Christina Gruber is an Austrian artist and freshwater ecologist, and here I present findings from the *Interview 2 (I2)* with her Although her journey began in the arts, it was followed by studies in sciences, driven by a "constant fascination" with watery elements like rivers and creeks. The

dual nature of this identity forms the core of Christina's unique practice and perspective. Her practice stands on the intersection of art and science, as she describes her practice as research-led, focusing on water habitats and the ecological issues therein. She described her art projects as intersected with scientific research, including the adoption of her underwater acoustic recordings in science, saying: "It started as an art project…and then the scientists were like, we can use this!". Her work facilitated connections between audiences and activists. Christina describes herself as "a mediator between artists and activists" while clarifying that she does not self-identify as an activist.

Picture 1, Christina recording the Traisen river listening for Danube salmons, credit: Christina Gruber

Through her work, she establishes and maintains her relationship with the environment, with the aim to "be touched by something", and to create embodied, sensory, and site-specific

connections moving beyond conventional scientific approaches. In her practice, she uses sound field recordings, listening as a mode of inquiry and interactive experience, and participatory workshops, often centered on topics of ecological listening and freshwater systems, inviting participants to engage with environments through soundwalks, collective listening sessions, and reflections on human-water relations in her practices. Christina promotes hope through tangible, small-scale actions that bring concern about ecological issues into everyday awareness. For example, she organizes soundwalks where participants are guided to listen to rivers, wetlands and water infrastructures.

Christina's recent project, Huchenhochzeit / The Danube Salmon's Wedding (2024) that featured in Lorena Moreno Vera's *The Way of the Water* (2024) takes place in the landscape of the River Traisen, a tributary of the Danube. She traces and translates the life cycle of the huchen (Danube salmon), photographed and illustrated on *Picture 2*, a unique and endangered fish species of the Danube River system, into an artistic narrative. Instead of presenting its decline through scientific statistics or ecological data, Christina stages the huchen's reproduction as a wedding ceremony. A wedding, with its elements of joy, vulnerability, and ritual, becomes a metaphorical frame through which participants are invited to reimagine the fish's struggle for survival. By giving the fish's life cycle a ceremony similar to a human one, she invites humans to enter a world where the fate of a species and its struggle for survival are something humans can experience and even celebrate, feel, and grieve. This project combines sound recordings, performative storytelling, and site-specific installations along the river, allowing the audience to listen to underwater environments, see sculptural elements referencing the fish's habitat, and participate in collective moments of attention and care.

Picture 2, salmon couple getting ready for their wedding, credit: Clemens Ratschan

As editors, curators, and organizers of "The Way of Water" which features Christina's project, point out, her work "navigates the confluence of art and science by delving into transition zones between water and land" (Warsza and Vera 2024, 128). These transition zones include wetlands, floodplains, and riparian corridors, spaces where ecological and cultural boundaries blur. Christina has an academic background in freshwater ecology and can switch between scientific observation and imaginative storytelling by combining three strands - species interactions, ecological education, and forms of care. She does so through formats that invite embodied and emotional engagement, such as sound-based workshops, podcasts, and field activities that encourage participants to learn new information about a specific site, interact with it and be touched by water environments both literally and figuratively. In Huchenhochzeit, this approach takes shape of a sound installation on the Rotary Bridge in St. Pölten, illustrated on *Picture 3 and 4,* as well as through the Fishy Podcast, where she interviews local experts and river enthusiasts. Science and art come together in the podcast format, which frames scientific

ideas in narrative, humor, and expressions while converting ecological knowledge into comprehensible narratives. By doing this, Christina establishes a space where ecological knowledge, firsthand knowledge, and imaginative creativity coexist, promoting both education and care.

Picture 3, Christina and the audience, Huchenhochzeit / The Danube Salmon's Wedding, credit: Peter Rauchecker

Picture 4, Map of the river, Huchenhochzeit / The Danube Salmon's Wedding, credit: Peter Rauchecker

Christina opens up the river's soundscape and history to human audiences via these diverse media, allowing the fish and the water a chance to "speak". Warsza and Vera (2024, 129) explain: "We need words to remind us of what is and what has been, even if they cause us pain" (Warsza and Vera 2024, 129). In this context, the pain refers to both the fact of species decline and extinction as well as human responsibility for producing it. Christina transforms reproductive biology into a ritual that viewers can identify with by transforming the life cycle of the fish into a wedding ceremony. Through underwater recordings that provide access to an otherwise unreachable acoustic world, the river "speaks" through sound rather than words, but the framing of this communication through metaphor and narrative makes it comprehensible and impactful.

Christina describes how participants are at first amused or surprised by the idea of a fish wedding - wedding, as a profoundly human and social ritual, initially surprises people when

transposed onto the life of a fish. Yet precisely through this strangeness, participants are moved to recognize the weight of salmon's endangered status more deeply, Christina explains. The wedding format evokes joy through celebration, music, and gathering, but sorrow and care are inseparable from it as the ritual centers on an endangered species. Her work purposefully creates this tension, the ceremony's oddity and fun invite participation, while the narrative framework and musical immersion ground the experience in loss and environmental awareness.

Christina's choice of media, sound installations, podcasts, narrative, and performance, demonstrates her effort to make ecological concerns more tangible by designing formats that invite embodied and affective engagement.
More than just disseminating knowledge, each medium gives audiences a way to connect with more-than-human world in unique ways. Huchenhoczeit's sound installation transforms the focus from visual observation to sensory immersion by making the river's acoustic world, normally inaccessible to humans, audible and interactive. The Fishy Podcast is a conversational archive that places ecological change inside human experience by compiling the personal knowledge and recollections of local fishermen, scientists, and enthusiasts. The wedding ritual transforms the salmon's reproductive cycle into a shared cultural form by converting an underappreciated biological process into a ceremony that participants can observe and emotionally engage with. This choice of media attention drawing people to unfamiliar environments, bring people together and evoke emotions.
Warsza and Vera (2024, 129) note that Gruber's work is about "rediscovering our watery origins and exploring potential approaches to coexistence and mutual care." This refers to the continued human reliance on freshwater systems for survival as well as the evolutionary development as human life originated from water environments. In her interview, Gruber reiterates this, stressing that "we are animals" and "we are shaped by water", rejecting the idea that nature implies separation and highlighting how human life is ingrained in aquatic ecologies.

Christina's art project created a space for citizens of St. Pölten to engage with and interact with the River Traisen, a waterway that has undergone significant ecological change but is currently the subject of ecological restoration initiatives. In this local context, "reconnecting with watery history" is recalling river's former, more active state recognizing its ecological and cultural relevance for the city before the ecological decline. The project also brought attention to the continuing conservation restoration efforts in the Lower Traisen, where municipal projects and environmental organizations are attempting to improve habitats for species like the endangered huchen. Christina made her wedding ceremony and sound installation visible and emotionally impactful for the community by placing them in this particular context.

Embodied practices

In response to questions on environmental changes, Christina remarked:

> I have this constant fear, but I don't want to get stuck in it…I need to transform it into something that moves me forward

This statement reflects how she negotiates difficult feelings but also a need for of optimism. She observed that her emotional reactions were frequently intensified when she experienced close interaction with natural settings, for instance, moments of happiness when turning over a river stone to find insect larvae or witnessing small signs of aliveness in degraded freshwater ecosystems.

As she reflected on how she processes emotions related to the climate crisis, Christina stated that her creative practice allowed her to focus on concrete, sensory experiences and tangible actions and direct interactions rather than abstract global concerns: "It's a way of showing people that they can do something small, that they are not powerless". Such small actions may include joining sound walks to listen attentively to local ecosystems and rivers, participating in

collective outdoor workshops, or simply paying attention to overlooked details in water environments. These small actions within her work also generate a sense of hope:

> If you do something small that you can actually manage, it makes you feel hope…and that hope is contagious

Christina describes "longing for, to be touched by something or to be moved by things" as a main motivation in her work. She explained that the word "connectedness" is too passive and has been overused in various contexts, leading to a loss of the concept's true meaning. Instead, she sees "being touched" as an active, physical way of being that requires going outside, listening, or being brave enough to care. The desire to be touched extends to understanding environments "with my body, with me being a body moving through different environments".

This physical and emotional engagement is crucial in Christina's art practice, offering feelings of hope and happiness in the face of climate change, eco-anxiety, and eco-grief. For her, this embodied engagement is an active and brave process that requires one to "take the step to go out or to take the step to look, to listen, to hear." She prefers the practice of "active engagement" and connects it to the word "Zugzwang" - German for "compulsion to move". Zugzwang is a "situation found in chess and other turn-based games where one player is put at a disadvantage because they must make a move when they would prefer to pass and not move", which means being in a tough spot where a player must act regardless.

Sensory Engagement, Re-orientation and Acoustic Ecology

Christina supports a "wider spectrum" of knowing and does not believe that art and science should be distinct options. She believes in the importance of interdisciplinary work and wants to see a place where both areas can help each other grow instead of art only being a way to "communicate science". An example of her interdisciplinary and embodied approach is her work in acoustic ecology. She started underwater soundscapes as an art project in the

Mississippi Delta to document environmental change, particularly the erosion of wetlands caused by land loss and altered river dynamics. She aimed to document shifts in aquatic environments that are typically inaccessible - muddy, underwater habitats using hydrophones to capture the acoustic phenomena of rivers, creeks, and wetlands. Listening as opposed the visual observation typical of fieldwork may uncover ecological transformations that visual observation could not such as the absence of specific aquatic noises due to habitat degradation, or the activity of shrimp, fish, and insects that would otherwise remain invisible. This art-based approach of underwater sound technology was later implemented in scientific research to keep track of species movement in Belgium and the Danube thanks to cost effective properties of the artist's method that also allows for monitoring over long time periods overcoming the limitations of short field visits in conventional science.

Listening, Christina argues, allows audiences to bypass visual fixation, instead encouraging a primal sense of hearing to understand the presence of species within a habitat and their health, creating an "acoustic image". For Christina, listening helps build up care for ecosystems as it makes environments perceptible and worth caring for. This illustrates how sensory engagement beyond the purely visual can ground people in lived experience, countering feelings of climate anxiety.

In her other art project, "Zugzwang: The Compulsion to Find a Common Baseline in Sound" (2020), *illustrated on Picture 5*, Christina created an audio-visual installation in collaboration with composer Samuel Hertz. This eight-channel sound piece accompanied by a silent, single-channel visual captures recordings of sediment flow from the Mississippi and Danube rivers, then combines them with sounds of pollution in the water to create an immersive sound experience. Despite being seen as silent, moving sand generates turbulence and vibrations, while pollution introduces mechanical and industrial sounds. recorded by hydrophones, these elements show an acoustic aspect of ecological transformation typically hidden from human

awareness. The study examines the recontextualization of listening, both human and machine-based, as a relational activity that detaches knowledge from exclusively anthropocentric views.

Picture 5, Zugzwang, The Compulsion to Find a Common Baseline in Sound, credit: Matthias Nemmert

Art as a Tool for Care and Resilience

Christina's art practice aims to help "reconnect or unlearn definitions we have about nature". She wants to show that people are "animals who are profoundly embedded" in the environment, not distinct from it. She argues that art is a strong medium for telling these stories, "reinventing myths" in an emotional and approachable style, less bound by science-based data and numbers. For example, her practice includes "walkshops" - walking workshops and sound walks, where she invites people to go outside into different environments to listen, illustrated on Picutre 6 and 7. These field expeditions are often co-created with her research group "Lobau Listening Comprehensions". These site-specific acoustic investigations of the Lobau, the Vienna Danube

floodplains put people in nature in a physical immersive way by asking them to stroll, pause, and synchronize their bodies with the surroundings, allowing sound to serve as the main mode of orientation. These walkshops approach sound from various angles. Group listening entails a unified focus on an environment, exchanging perceptions, and building a sense of shared presence. Oral histories incorporate local narratives and personal experiences associated with the soundscape, connecting memory to location. Acoustic ecology utilizes the scientific examination of sound within ecosystems, where underwater or ambient recordings disclose species behavior, environmental well-being, or deterioration. Scientific communication translates ecological knowledge in accessible formats, using sound as a bridge between data and lived experience. Collectively, these approaches facilitate a relational and multisensory understanding that contests traditional distinctions among art and science in everyday life.

Christina thinks these interactions are healing, affect how people perceive the environment around them, and make them care about the place in a deeper way. This active involvement transforms vague discussions about the climate crisis into tangible, personal actions that, as Christina points out, “fight doomism and give people hope”. She says that thinking about changes in the environment in an abstract way might cause fear, grief, sadness, and frustration, but being physically present in a freshwater ecosystem, even a damaged one, might make one feel “happy” because it allows one to see “aliveness” and modest progress. She explains:

> It sounds always very cheesy, but you come back different somehow after hanging out the whole day in a very muddy place. So yeah, it changes your perspective. And it's very healing in a certain sense, to a certain amount. But especially what I hope that it does, or it does for me, at least, is that I really start care for the place. And that is something that I hope that transmits somehow also to all the people that go with us on these walks, that find out about my work as well as like being.

Additionally, regarding addressing climate emotions and the difference between negative emotions of fear, grief, sadness, and frustration experienced as a result of theoretical climate

change discussions, and positive emotions experienced as a result of physical presence in the environments, she elaborates on her research on ecological issues:

> So when I research about them and I read about them, when I sit in the office, or I'm in my studio, they are mainly negative.
> But then, when it comes to moment, when I go outside, and I try to be in a freshwater ecosystem, for instance, or I'm at a river, and even though it is heavily degraded, not in a good state, but still, there comes this moment of happiness.

Christina explained the significance of noticing and focusing on minor measures, this can mean something as simple as turning over a stone in a river to find insect larvae, to mitigate the daunting abstraction of extensive climate challenges. Using immediate practices, one might see "aliveness" within the environment. Art making provides conditions for engagement and cultivating positive climate emotions, providing embodied experiences that mitigate the feeling of "doomism".

Picture 6, Lobau Listening Comprehensions (LLC), credit: Swamp Mix Tour

Picture 7, Lobau Listening Comprehensions (LLC), credit: Swamp Mix Tour

4.2. Art Practice Through Altered Landscapes

Art Practice Overview

The last interview, *Interview 3 (I3),* took place remotely with Liljana Mead Martin and I present results here. She is a multidisciplinary artist and writer based in Canada, whose work is ecologically engaged and addresses environmental issues, land-based methodologies, and the dissemination of ecological knowledge. Liljana's art practice is rooted in land, place, and ecology. It also integrates visual and linguistic approaches, seeking to establish connections between individuals and places. Influenced by her background in an environmentally conscious

home, she characterizes her work as “metabolizing” science-based knowledge into artistic expressions that promote joy, interpersonal connection, and communal resilience. She shared that her work has been greatly influenced by the permaculture principles and practices that were a part of her childhood home. Liljana critiques “binary” thinking about nature and people, describing it as a barrier to more integrated and empathetic approaches.

Liljana’s work is situated at the intersection of art-based methods and research, often focusing on critical environmental issues in Western Canada, including overlogging, monocropping, drought, and forest fires. She is involved in climate communication and works with scientists, activists, and community organizations.

A significant part of Liljana’s approach involves emotional processing. She actively works to develop processes of self-regulation to prevent emotions like grief and helplessness from getting “stuck in the body or even worse, in the head”. She stresses the importance of processing information overload through art activities to prevent these sentiments from turning into cynicism, especially as someone with a heightened awareness of climate change. For Liljana, art becomes a vital outlet for her to express the “necessary feelings” that arise at work, allowing her to experience joy after creation. It is contrasted to the often policy-focused outcomes of environmental advocacy, which is another dimension of the artist’s activities.

Picture 8, Heat Agape, 2025, canvas, burnt cedar, cedar incense, work by Liljana Mead Martin, source: Instagram post

Picture 9, Heat Agape, 2025, canvas, burnt cedar, cedar incense, work by Liljana Mead Martin, source: Instagram post

Liljana's recent project, Primary Futures (2025), shown at ENTRE Vienna, uses Canada's primary and old-growth forests as both a subject and a collaborator by incorporating their material presence directly into the work, *illustrated on Picture 8 and 9.* The Western Red Cedar is the main focus of this work. It is old, resilient, but fragile. Liljana establishes the ecological reality of fire, extraction, regeneration, and communication between species through the process of burning, dyeing, printing, and stacking wood with canvas and colors. Cedar, dye, canvas, and fire transcend being merely art symbols or mediums; they are real elements that hold the memory of natural processes. By working directly with these materials, the artist transforms scientific knowledge and political urgency into something tangible that we can touch and feel. She compares this physical interaction with the luminous void of screens, which are mediated, and asks if our lives full of screens make it harder for us to experience and learn. For her, ecological literacy should be sensory and situated rather than theoretical and abstract.

One possible reading of the Primary Futures is that it reflects ecological grief, the responsibility for future generations, and the conflict between vulnerability and strength. The work begs the question of our future selves will exist in connection with or in estrangement from forests as well as what will happen to these forests and ecosystems they inhabit. *Picture 10 and 11* illustrate burned cedar that consists of charred wood pieces with the marks of fire on their surfaces, and "ghost lines of extraction" - imprints made from processed cedar, leaving traces, actualize precarity of logging practices and human intervention. In addition to references to understory plants that survive in damaged woods, the tiered stacking of cedar with canvas and color suggests resiliency and regeneration. Martin's work thus acknowledges loss while simultaneously urging the survival of non-human life, thereby creating a conflict between grieving and survival.

Picture 10, Cascading Effects. 2025, burnt cedar, canvas, dye, hardware, work by Liljana Mead Martin, source: Instagram post

Picture 11, Cascading Effects. 2025, burnt cedar, canvas, dye, hardware, work by Liljana Mead Martin, source: Instagram post

Self-Regulation and Art as Emotional Metabolism Tool

Liljana acknowledges climate emotions to be a part of reality in her practice and is working on finding ways to regulate them. Talking about ecological anxiety and grief among other climate emotions, she mentions she actively works to ensure these "active and overall quite healthy feelings" do not "calcify into cynicism". She related cynicism to a loss of empathetic capacity and considered it a risk among individuals with high climate awareness. Liljana views feeling climate emotions as a "developmental process around building empathetic ability towards these really huge issues".

Liljana has been creating coping mechanisms outside of her artistic practice because she recognizes the widespread experience of feeling overwhelmed and paralyzed by the sheer amount of problems and information, which is often an issue that people with increased climate awareness face: She has "yet to meet one person working in the environmental space who has not burned out," she says.

Liljana describes the daily cycle of reading studies on forests, droughts, fires, and logging, as well as the emotional toll of unprocessed data. To avoid pessimism, Liljana describes her search for self-regulation and her artistic practice to address the overwhelming data and emotions associated with environmental issues, such as ecological grief, powerlessness, and anger. She can handle "necessary feelings" and find satisfaction and joy in her practice. Describing her practice's link to emotions, she says:

> I do science communications as well. Because getting to the emotional part can be a bit of a short circuit and it can sometimes get stuck there and I actually find that I'm often trying in my daily work to develop processes of self-regulation amidst learning a lot of new information.

And she follows up explaining that her artwork serves as the primary means to "metabolize" this information and prevent negative emotions from becoming ingrained:

> And I'm learning as I go deeper into this space, that if I linger there for multiple days at a time and do not metabolize what I'm actually reading through creative work, it gets stuck in the body or even worse, in the head. And I can't stop thinking about it. Or that feeling, I think those feelings of grief or helplessness can emerge.

Before finding her current channels, Liljana experienced "tension between anger, grief, and frustration around primarily going to social events and feeling like no one wants to hear about the climate crisis". Her art practice now serves as an outlet for the emotions that arise from her learning and working on her projects. Crucially, this process allows her to "actually feel joy after making a work", a contrast to the often frustrating, policy-focused outcomes of environmental advocacy. This seems to be an essential element of her work and career, as she firmly believes that "a regulated nervous system hears better, listens better, is better at responding to people with the appropriate empathy and kindness", which underscores the direct link between emotional regulation and effective engagement in the context of environmental engagement and awareness.

Liljana's art appears to serve as a means of internal processing, transforming potentially crippling emotional and intellectual burdens into a source of ongoing involvement and even joy. As a key element of her emotional resilience, this proactive approach to emotional self-management through creative output enables her to overcome the challenges of climate work without becoming cynical or burned out, ultimately maintaining her "big picture" perspective. Hence, art practice becomes a mechanism for emotional processing and maintaining mental well-being in the face of climate distress.

Reconceptualizing Emotional Strength Through Vulnerability

Defying societal binaries and reconceptualizing vulnerability as a part of emotional strength and a profound connection to nature are central to Liljana's approach to ecological realities and processing of emotions. According to the artist, the society's fixation on binaries could be a

false portrayal of reality. This is something she openly questions explaining that binary thinking poses a threat to certain types of power structures for people. She draws attention to the "human nature binary" and its inherent fallacy as this artificial division influences our perception of reality:

> We are part of nature. We consume it and we exude it and we go back to it. And we literally come from it.

Following a similar logical pattern and drawing from cedar trees, which are at once resilient and vulnerable, she questions the common perception that strength is antithetical to vulnerability, and states, on the contrary, that it is impossible to build emotional or ecological strength without vulnerability. Liljana views the societal notion that "emotion and vulnerability are not strengths in and of themselves is a very patriarchal sort of lens". She argues that this perspective could be used to "weaponize both the wisdom of women and femmes" and to "separate the kind of natural wisdom that comes from being connected to an environment and devalue it". This lens reduces nature to resources, as opposed to functional systems that encompass entire family lineages and hold value beyond what they can be destroyed and reduced to.

To overcome this presumption, Liljana advocates for calls for redefining resilience not as hardening against difficulty but as cultivating openness. Her suggested method is to "let all those climate problems or feelings in" instead of "pushing it away". This open engagement with emotions and feelings involves acknowledging that, according to her words, "I'm not just an individual, I'm completely dependent on other people and the environment in order to, not to survive, but also to have a fulfilling life". By drawing closer to problems rather than retreating or avoiding them, Liljana suggests that vulnerability can itself be a form of strength, creating space for connection, care, and new ways of addressing ecological crises.

CHAPTER FIVE: DISCUSSION

Considering the interviews with Lorena Moreno Vera, Liljana Mead Martin, and Christina Gruber in the context of the reviewed literature on eco emotions and art making, four common themes emerged that require discussion in order to answer my research questions. First, art making was repeatedly described as an emotional outlet, or emotional metabolism, allowing artists to express their emotions. Secondly, art making is a particular form of expression that engages multiple senses and encourages sensory engagement with environments or natural materials. Third, art making appears to constitute a small, specific action to counter feelings of paralysis or helplessness. Fourth and final, art making is experienced as a connective process, conducive to collaboration.

5.1. Expression for Emotional Processing

According to the results of the interviews, the artists saw climate emotions as inevitable responses that need to be dealt with to avoid burnout or stagnation. They underlined that feelings must be expressed instead staying in mind and body as they cannot be merely disregarded or rationalized. Art making was framed in this context as form of emotional metabolism – a process reshaping internal concerns into creative expression, according to the metaphor by Liljana Mead Martin. This aligns with theoretical research following non-clinical framing of climate emotions and that acknowledges climate emotions as natural responses (Cunsolo and Ellis 2018; Pihkala 2020). The artist's engagement with their practice was described as transforming the feeling of overwhelm into forward-moving, non-stagnant energy, which aligns with the argument that acknowledging and expressing emotional distress are central to emotional regulation. This situates art making as a bodily and psychological process that prevents climate emotions from. In this way, art making becomes forms a regulatory

strategy for expressing emotions , which is consistent with emotional resilience theory, that suggests emotional adaptive capability builds on emotional expression (Rachmand 2022), similar to Davenport's (2017) step-by-step model of resilience that includes acknowledgement of emotions and moves on to awareness and creative expression. The artists embodied this transition from reshaping distress to dynamic participation by using artistic approaches to express anxiety, grief fear in the context of climate change.

A crucial question, however, is whether expression through art making should be seen solely as an individual coping strategy. When seen narrowly, it advantages the artist by providing relief and preventing burnout. However, the way this expression manifests is significant. Unlike avoidance techniques such as numbing or distraction, art allows acknowledging emotions and externalizes them into symbolic forms. This creates opportunities for interaction beyond the individual. Christina Gruber's methodology of transforming her emotional reactions into site-specific installations, encompassing rivers and soundscapes, and Lorena Moreno Vera's exploration of vibrational and auditory phenomena that correlate human emotion with natural dynamics, strongly represented this concept. Their research indicates that while the fundamental act of expression may serve a personal regulatory function, the resulting artworks foster interaction with environments, other humans and nonhumans.

This suggests that art making is fundamentally different from coping mechanisms that maintain emotional expression in private. By reshaping emotions through creative endeavors, artists improved their well-being while producing works that resonate with wider audiences, ecological systems, and multidisciplinary collaborations. The results thus enhance the literature on climate emotions in two ways. Initially, they endorse non-clinical interpretations that regard climate emotions as valid responses. Secondly, they illustrate how personal regulation can facilitate societal, ecological, and cultural resilience processes contributing to the collaborative strategies to address climate emotions (Opstelten 2025).

5.2. Sensory Engagement

Another significant theme that emerged in the findings is the concept of embodied and sensory engagement with the environment. Each of the three artists positioned their work as a counterweight to the disconnectedness or abstraction that sometimes are present in communication about climate change. According to Christina Gruber, her idea of "being touched" is a conscious departure from the overused term of "connectedness", redefining participation as an active, physical experience of soundscapes, mud, or rivers. In a similar way, Lorena Moreno Vera highlighted the tactile and vibratory aspects of sound, comparing it to thunder and earthquakes to demonstrate how ecological forces are felt directly in the body, and how sound has the capabilities to engage with our senses. Through her art pieces, which utilize fire and charred cedar, Liljana Mead Martin brought ecological processes to life in tangible, tactile ways, transforming scientific information about drought and logging into sensory experiences. This approach parallels calls in climate engagement research for situated and embodied approaches (Ojala 2023).

The artists' practices demonstrate that sensory involvement can climate emotions by anchoring them in physical reality. For Lorena, the vibratory characteristics of sound allow audiences to experience ecological forces viscerally in their bodies. For Christina, even compromised freshwater ecosystems afforded moments of joy and compassion may emergeing not from flourishing environments but from declined ecosystems. This discovery contradicts the argument found in ecotherapy literature, that positive emotional outcomes rely on access to healthy green environments (Ibrahim 2024). It posits that emotional resilience can be cultivated within the existing surroundings individuals occupy.

This serves as an addition to both climate communication and emotional resilience scholarship. Although ecopsychology frequently highlights the advantages of awe and restoration in natural

environments (Summers & Vivian 2018), the artists demonstrate that emotional regulation can also arise from direct interactions with local and imperfect sites. From an environmental justice standpoint, this is significant: if only unspoiled landscapes are regarded as deserving of emotional attention, individuals in urban or degraded environments may be marginalized from both the advantages of involvement and the ethical conceptualization of environmental value (Adger 2000; Cote and Nightingale 2011). The artists emphasize that ordinary environments are the exact locations where climate emotions can be addressed.

Interviews findings align with research on embodied approaches to emotional resilience (Ojala 2023), showing it can be strengthened by somatic and situated practices. However, they go beyond it by showing that these kinds of activities do not require special settings. Conversely, deteriorated environments might be effective in bringing up the conflict between joy and sorrow, vulnerability and concern. For Lorena, vibratory soundscapes reflected how ecological forces are felt even when they overwhelm, for Christina, time spent in rivers helped turn her despair into forward-moving hope. According to these practices, sensory engagement involves reorienting ourselves to our current habitats and arguing that they should be preserved and cared for.

5.3. Activation Through Art Making

The transformation of complex climate emotions into small, specific actions through art making practices was also evident in the interviews, leading to experiencing more positive emotions and feelings of hope, while acknowledging the realities of the climate crisis. For example, Christina Gruber emphasized that even modest, tangible steps in damaged ecosystems can generate a sense of contagious hope, which directly counters what she described as “doomism”. These observations contribute to the research on climate emotions, which often highlights the dangers of avoidance or paralysis (Budziszewska and Jonsson, 2021; Clayton et al., 2017).

Instead, the artists showed how climate grief or solastalgia can be used as fuel for care and artistic expression in forms of small actions. Their actions exemplify what Davenport (2017) refers to as a process-based strategy for emotional resilience, which involves first recognizing feelings and then transforming them into embodied awareness and positive behaviors. In the interviews, this shift was evident not only in Christina's soundwalks but also in Liljana's insistence on turning overwhelming ecological information into creative outputs and Lorena Moreno Vera's understanding of art as potential for imaginary futures. All three artists showed that emotional activation arises from actions that are particular and easily accessible rather than requiring extensive interventions.

These acts were intended to involve others and create shared experiences, even if each artist explained them as a personal coping strategy. Private emotions served as catalyst for initiatives that were visible to the public in each example, indicating that artistic activation can also serve as a communal resource. This is consistent with more contemporary models of collective emotional resilience that place an emphasis on ecological interdependence, cultural practices, and belonging (Qiu and Qiu 2024) in contrast to individualistic framings of resilience.

Although research questions were centered around human emotional expereinces, the interviews also demonstrated that activation encompasses locations as well as emotions. The artists transformed damaged ecosystems into places of attention and care by placing their projects in degraded environments. Examples of this include Liljana's cedar works that reference overlogged forests, Lorena's art project along the river that is being restored. Communities' perceptions of neglected or deteriorating habitats can be changed by such art initiatives, which may spark more ecological awareness or even tangible benefits. In this way, activation also brings places to life, making them noticeable, significant, and deserving of fresh attention.

However, the consequences of such site-specific practices can also lead to cycles of gentrification or revaluation. In these situations, art runs the risk of uprooting local communities instead of strengthening them. Although the artists in this study included ecological histories and collaborative practices into their creations, there was insufficient data from the interviews to evaluate how these relationships develop over time. This suggests that more study is required to fully understand the sociopolitical impacts of art-based interventions in ecosystems that are contested or in decline.

5.4. Connection Through Art Making

Each of the three participants engaged in collaborations and connection across art making and science, positioning art making as a bridge between worldviews and questioning existing binaries. Christina's research-led projects illustrate this well, as her underwater sound recordings initially began as artistic explorations but were later adopted by scientists for species monitoring, demonstrating how artistic methods can expand the scope of scientific practice. Similarly, Liljana Mead Martin described her work as metabolizing scientific knowledge into tangible, sensory forms, transforming complex data on forests and drought into embodied experiences. Lorena Moreno Vera underscored art's capacity to bring together various actors from different disciplines, through projects like *The Way of the Water*, where ecological issues were engaged collaboratively and experientially. She emphasizes art's ability to foster imaginative possibilities in a creative and playful way. Thus, art is situated as both an outlet for processing individual emotions and a catalyst for interdisciplinary connections and enriching the frameworks of other disciplines. These findings align with research that critiques overly narrow framings of emotional resilience in the face of climate change as individual self-regulation, and instead emphasizes collective, dialogic, and creative practices (Skotnitsky 2025; Chesnut 2022). The artists' practices illustrate how art can operate as a mediator of climate emotions at both individual and communal levels. This aligns with calls to move beyond

therapeutic or clinical framings of climate emotions toward relational, political, and cultural approaches (Cunsolo and Ellis 2018; Opstelten 2025). The artists also questioned conventional dichotomies, such as power versus vulnerability, human versus nature, or art versus science. Their actions align with research that challenges anthropocentric divisions (Pihkala 2022).

The interviews also show that although art making offers connection, these relationships may not be neutral and equal. Collaborative projects may replicate current exclusions even though they can lead to new methods of working across disciplines and publics, if not all voices are given the opportunity or authority to participate. Research on resilience has demonstrated that unequal access to resources, information, and decision-making authority shapes adaptive capacity in different ways depending on cultural and political contexts (Adger 2000; Cote and Nightingale 2011). In this way, if the bridging potential of art is not mindful of who is included and who is left out of the frame, it runs the risk of enhancing already privileged worldviews. These interventions beg the question of whether connection serves some groups more than others, such as artists, scientists, or cultural elites. The interviews indicated that the connecting potential of art making must be seen as situational and context-specific, but they did not offer enough evidence to evaluate these dynamics entirety. Although art making can promote collective resilience and collaboration, it cannot be presumed to do so in an equitable or inclusive way manner. Studying how art-based collaborations might maximize their potential to create inclusive forms of resilience while avoiding repeating systemic inequities presents a potential for further research.

5.5. Discussion Summary

This discussion chapter has drawn on four strategies for coping with climate emotions based on the reflections on art making practices from the interviews with the artists - expression, sensory engagement, activation, and connection to provide answers for the overarching research

question: “What explicit and implicit strategies for coping with climate emotions emerge from ecologically engaged artists’ reflections on their art making processes, and how do these relate to the broader societal context of the climate crisis that triggers these emotions?” The findings from the interviews show that the artists perceive climatic emotions as inevitable, frequently overwhelming, influencing both mind and body. However, rather than being repressed, these feelings could be partly externalized and processed through the process of art making. In order to allow emotions to flow outward into symbolic and communicative forms, expression serves as a regulating mechanism that turns grief, anxiety, or hopelessness into specific actions and projects. In this way, art making may be a self-regulation strategy and creative expression outlet that defies avoidance or numbness.

The results situate art making as a non-clinical, approachable way to cope with emotions. Artists illustrated how emotional resilience may be developed outside of traditional treatment settings by appealing to a variety of senses, emphasizing neglected or deteriorated places, and doing small but tangible acts. By encouraging action through situational, creative activities rather than large-scale systemic solutions, these strategies may combat paralysis. This suggests that art might be viewed as a survival tactic, a means of recovering in circumstances where people frequently feel helpless.

Despite studying as a personal coping strategy, art making may produce outputs extending to societal engagement. Initiatives like Lorena Moreno Vera’s *Way of the Water* and Christina Gruber's *Huchenhochzeit* brought together and bridged communities, disciplines, and human-nonhuman relations, transforming personal emotions into group experiences. Art practices have a role in taking action when systemic change seems unattainable as it allows establishing own guidelines, making choices, defining meaning.

CHAPTER SIX: CONCLUSIONS

This study focuses on the artists' reflections on their practice, contributing to the understanding of how art making might form strategies to address climate emotions and build resilience during the climate crisis. The results demonstrate that art making is a means of expressing emotions, allowing artists to channel their climate anxiety and climate grief into forward-moving energy. Beyond just being a means of expression, art served as an emotional regulating tool that helped artists prevent burnout or cynicism and build positivity through small-scale actions during their practice.

Moreover, each of the three artists specifically discussed how they use their art to understand, express, and address climate emotions, such as grief or a sense of hopelessness. Reflecting on the ways to achieve this through art making, they used a variety of practices, including embodied interaction with the environment, haptic and sensory experiences with materials and sound, the development of stories and actions to cope with loss, and the acceptance of vulnerability as a foundation for resilience. These approaches present the potential of art making in forming accessible strategies to coping with emotions amid the ongoing climate crisis. It has the power to allow individuals to process emotions, maintain balance, and remain engaged with environmental knowledge without reaching points of avoidance or constant distress.

Addressing emotions refers to noticing, creating moments of sensory attention and presence in the environment that are often overshadowed by routine and constant demand to strive for growth through tangible results. This serves as a reminder that developing our perceptions, emotions and ways of seeing and feeling is as important as striving for measurable systematic changes due to the nature of climate crisis. The climate crisis seeps into many aspects of everyday life proving the idea humans can exist independently wrong. The danger of

dichotomous thinking – like humans versus nature, science versus art, becomes increasingly obvious today. To overcome this, the urgency lies in just collaboration across worldviews, disciplines and species, and in rethinking our relationship with one another and the more-than-human world.

This understanding holds particular significance for me. As I was listening to artists and their inspiring practices and how they deal with loss turning grief into curiosity and further action, I was reflecting on how the human cost of the climate change is frequently overlooked in favor of policy, technology, and quantifiable results in academic context, especially in the field of environmental research. In the context of the degree that this master's thesis complements, I saw the strength of the community at CEU in its diversity of people arriving from different backgrounds yet sharing common desire to study the current issues and possible futures. This process, however, inevitably relates to the emotional dimension of engaging in environmental research, so for education to truly promote shaping future it is crucial to acknowledge this dimension and to teach us to navigate it. Addressing emotions within academic communities is essential part that may complement other forms of expertise and broaden knowledge production rather distracts from it. Paying attention to small moments, practicing care, experimenting with creative forms and learning *to work with* emotions rather than despite them may be ways of moving forward. Art practices present these opportunities, yet such approaches remain dismissed as peripheral to more conventional approaches and undervalued in many professional and academic contexts beyond art studies. However, these practices may support us in building openness and imagination to shift how we understand our role in this world and engage with climate change dimensions. This research showed me that individual, bodily, and emotional ways of making sense of the world matter deeply. There is still much work to do in this field, but beginning matters significantly. In the midst of societal crises, we can continue our life's

work in academic and artistic environments where showing our feelings is not a sign of weakness but of strength, community, and compassion for one another.

APPENDIX 1

Question #	Open-ended Question and Purpose
1	How do you describe your work, media you work with, and how did you come to do it? *Purpose: start off the interview, establish the interviewee's identity, and how they place their work*
2	What are your reflections on relating your art practice to ecological of themes and climate change? *Purpose: see how they conceptualize their work in the context*
3	When you think about climate change, what emotions come up most to your mind? *Purpose: understand how climate crisis affects their emotions*
4	Do these feelings come up in your work? How does the process of art making make you feel? *Purpose: understand how climate crisis affects their emotions, and how they link climate emotions and art*
5	As someone who is actively involved in the environmental agenda and / or knowledge production, what helps you process your emotions and quiet your mind when the news or thoughts about climate and global crises feel overwhelming? *Purpose: understand how they process strong climate emotions*
6	How does art making process relate to a feeling of responding to what's happening around you? *Purpose: see if they connect art and the sense of agency and action*
7	What do you think of art's capabilities of reclaiming a sense of power? *Purpose: see if they connect art and empowerment*
8	Do you link making art to activism? If so, how? *Purpose: clarify if and how they see art practice as activist*
9	Is there anything you would like to add to your answers or additionally share that I may have not asked? *Purpose: close out the interview, clarify additional information*

BIBLIOGRAPHY

Acker, Maleea, Kristian Lukas Dubrawski, Crystal Tremblay, et al. "Commissioning Community-Based Art Projects to Support Engagement with Nature-Based Solutions." *Frontiers in Sustainability* 6 (May 2025): 1592706. https://doi.org/10.3389/frsus.2025.1592706.

Alves, José Matias, Mireia Tintoré, and Lídia Jesus Pecegueiro Serra. "Editorial: Leadership, Learning, Well-Being, and Justice in Educational Organizations." *Frontiers in Education* 10 (March 2025): 1577472. https://doi.org/10.3389/feduc.2025.1577472.

American Psychological Association and ecoAmerica. "Mental Health and Our Changing Climate: Impacts, Implications, and Guidance: (503122017-001)." PsycEXTRA Dataset. American Psychological Association (APA), 2017. https://doi.org/10.1037/e503122017-001.

Baudon, Pauline, and Liza Jachens. "A Scoping Review of Interventions for the Treatment of Eco-Anxiety." *International Journal of Environmental Research and Public Health* 18, no. 18 (2021): 9636. https://doi.org/10.3390/ijerph18189636.

Baum, Chad M., Elina Brutschin, Livia Fritz, and Benjamin K. Sovacool. "A New Hope or Phantom Menace? Exploring Climate Emotions and Public Support for Climate Interventions across 30 Countries." *Risk Analysis*, March 15, 2025, risa.17713. https://doi.org/10.1111/risa.17713.

Biswas, Debajyoti, and John Charles Ryan. "Solastalgia and Poetic Resilience in the Environmental Imagination of Kathy Jetñil-Kijiner." *Journal of Narrative and Language Studies*, ahead of print, Journal of Narrative and Language Studies (NALANS), May 15, 2023. https://doi.org/10.59045/nalans.2023.14.

Brophy, Hailie, Joanne Olson, and Pauline Paul. "Eco-anxiety in Youth: An Integrative Literature Review." *International Journal of Mental Health Nursing* 32, no. 3 (2023): 633–61. https://doi.org/10.1111/inm.13099.

Brosch, Tobias, and Disa Sauter. "Emotions and the Climate Crisis: A Research Agenda for an Affective Sustainability Science." *Emotion Review* 15, no. 4 (2023): 253–57. https://doi.org/10.1177/17540739231193741.

Budziszewska, Magdalena, and Sofia Elisabet Jonsson. "From Climate Anxiety to Climate Action: An Existential Perspective on Climate Change Concerns Within Psychotherapy." *Journal of Humanistic Psychology*, February 10, 2021, 0022167821993243. https://doi.org/10.1177/0022167821993243.

Carvalho, Graça S., and Teresa Vilaça. "Editorial: Health Promotion in Schools, Universities, Workplaces, and Communities." *Frontiers in Public Health* 12 (December 2024): 1528206. https://doi.org/10.3389/fpubh.2024.1528206.

Chesnut, Jennifer. *Holding Space for Emotional Processing When Youth Study the Climate Crisis*. n.d.

Cowie, Robert H., Philippe Bouchet, and Benoît Fontaine. "The Sixth Mass Extinction: Fact, Fiction or Speculation?" *Biological Reviews* 97, no. 2 (2022): 640–63. https://doi.org/10.1111/brv.12816.

Cunsolo, Ashlee, and Neville R. Ellis. "Ecological Grief as a Mental Health Response to Climate Change-Related Loss." *Nature Climate Change* 8, no. 4 (2018): 275–81. https://doi.org/10.1038/s41558-018-0092-2.

Depta-Garapich, Katarzyna. *"NeitherSubjectnorObject":Ferality,SolastalgiaandStrangeToolsofSituated Practice*. (2019).

Doherty, Thomas J. "Clinical Psychology Responses to the Climate Crisis." *Comprehensive Clinical Psychology (Second Edition)* 11, no. 2 (2022): 167–83. https://doi.org/10.1016/B978-0-12-818697-8.00236-3.

Fey, Jana-Maria. *Changing Minds in Neoliberal Times: The Global Politics of Mental Health Awareness and Anti-Stigma Campaigns*. (2021).

Gulbe, Elīna, Aija Ozola, Beāte Vītola, Elīna Akmane, Jasmina Pacek, and Kristīne Mārtinsone. "Exploring Nature-Based Art Therapy: A Scoping Review." *Frontiers in Psychology* 16 (January 2025): 1522629. https://doi.org/10.3389/fpsyg.2025.1522629.

Hickman, Caroline, Elizabeth Marks, Panu Pihkala, et al. "Climate Anxiety in Children and Young People and Their Beliefs about Government Responses to Climate Change: A Global Survey." *The Lancet Planetary Health* 5, no. 12 (2021): e863–73. https://doi.org/10.1016/s2542-5196(21)00278-3.

Ibrahim, Maliha. "Applying Emotional Regulation Strategies to Manage Climate Distress." In *Emotional Regulation - Theory and Application Across Clinical Settings*, edited by Maliha Ibrahim. IntechOpen, 2024. https://doi.org/10.5772/intechopen.1007813.

Jeffery, Renée. "Addressing Psychosocial Trauma in Post-Conflict Peacebuilding: Emotions in Narrative and Arts-Based Approaches." *Cooperation and Conflict* 59, no. 2 (2024): 171–89. https://doi.org/10.1177/00108367231184721.

Johnstone, Lucy, and Mary Boyle. "The Power Threat Meaning Framework: An Alternative Nondiagnostic Conceptual System." *Journal of Humanistic Psychology* 65, no. 4 (2025): 800–817. https://doi.org/10.1177/0022167818793289.

Karakasidou, Eirini, Michael Galanakis, and George Tsitsas. "Editorial: Well-Being and Education: Current Indications and Emerging Perspectives." *Frontiers in Psychology* 15 (October 2024). https://doi.org/10.3389/fpsyg.2024.1496914.

Kemp, Andrew H., Zoe Fisher, and Panu Pihkala. "Editorial: International Day of Happiness: Happiness and Wellbeing in the Age of Climate Catastrophe." *Frontiers in Psychology* 15 (October 2024): 1497347. https://doi.org/10.3389/fpsyg.2024.1497347.

Kingsmith, A T, and Rita Issa. *Evolving Activist Approaches to Climate Change: Strategies for Communication and Public Engagement*. (2024).

Kikstra, Jarmo S., Zebedee R. J. Nicholls, Christopher J. Smith, et al. "The IPCC Sixth Assessment Report WGIII Climate Assessment of Mitigation Pathways: From Emissions to Global Temperatures." Geoscientific Model Development 15, no. 24 (2022): 9075–109. https://doi.org/10.5194/gmd-15-9075-2022.

Kirakosyan, Lyusyena, and Max Stephenson. "Arts as Dialogic Practice: Deriving Lessons for Change from Community-Based Art-Making for International Development." *Psych* 1, no. 1 (2019): 375–90. https://doi.org/10.3390/psych1010027.

Legg, Stephen. "IPCC, 2021: Climate Change 2021 - the Physical Science Basis." Interaction 49, no. 4 (2021): 44–45. https://search.informit.org/doi/10.3316/informit.315096509383738.

Lee, Myungjoo, Han Choi, and Young Tak Jo. "Targeting Emotion Dysregulation in Depression: An Intervention Mapping Protocol Augmented by Participatory Action Research." *BMC Psychiatry* 24, no. 1 (2024): 595. https://doi.org/10.1186/s12888-024-06045-y.

Li, Guangdong, Chuanglin Fang, Yingjie Li, et al. "Global Impacts of Future Urban Expansion on Terrestrial Vertebrate Diversity." *Nature Communications* 13, no. 1 (2022). https://doi.org/10.1038/s41467-022-29324-2.

MacDonald, Fiona. *Exploring Art and the Creaturely Through Interspecies Practice*. (2022).

Mace, Mary-Anne, and Tony Ward. "Modeling the Creative Process: A Grounded Theory Analysis of Creativity in the Domain of Art Making." *Creativity Research Journal* 14, no. 2 (2002): 179–92. https://doi.org/10.1207/S15326934CRJ1402_5.

Minkoff, Marla Joy. *Exploring The Connections Between The Arts And Mental Health In The Face Of Climate Change*. (2024).

Moore, Jason W. *The Rise of Cheap Nature*, (2016).

Moula, Zoe, Karen Palmer, and Nicola Walshe. "A Systematic Review of Arts-Based Interventions Delivered to Children and Young People in Nature or Outdoor Spaces: Impact on Nature Connectedness, Health and Wellbeing." *Frontiers in Psychology* 13 (March 2022): 858781. https://doi.org/10.3389/fpsyg.2022.858781.

Ojala, Maria. "Climate-Change Education and Critical Emotional Awareness (CEA): Implications for Teacher Education." *Educational Philosophy and Theory* 55, no. 10 (2023): 1109–20. https://doi.org/10.1080/00131857.2022.2081150.

Ora, Elvis G, Jarra C Eugenio, Aliah Paula Guingguing, et al. *STUDENT PERCEPTIONS ON CLIMATE CHANGE: INSIGHTS FOR FORGING ACTION PATHWAYS*. no. 2 (2025).

Paganini, Nicole, Vanessa Farr, and Jes Weigelt. “Pathways to Transform Urban Food Systems: Feminist Action Research from Cape Town and Nairobi.” *Frontiers in Sustainable Food Systems* 8 (January 2025): 1470801. https://doi.org/10.3389/fsufs.2024.1470801.

Pahwa, Sumit, and Nusrat Khan. “Factors Affecting Emotional Resilience in Adults.” *Management and Labour Studies* 47, no. 2 (2022): 216–32. https://doi.org/10.1177/0258042x211072935.

Pihkala, Panu. “Anxiety and the Ecological Crisis: An Analysis of Eco-Anxiety and Climate Anxiety.” *Sustainability* 12, no. 19 (2020): 7836. https://doi.org/10.3390/su12197836.

Pihkala, Panu. “Eco-Anxiety and Environmental Education.” *Sustainability* 12, no. 23 (2020): 10149. https://doi.org/10.3390/su122310149.

Pihkala, Panu. “The Process of Eco-Anxiety and Ecological Grief: A Narrative Review and a New Proposal.” *Sustainability* 14, no. 24 (2022): 16628. https://doi.org/10.3390/su142416628.

Pitt, Clare, Kimberley Norris, and Gretta Pecl. “A Systematic Review of Climate Emotions and Mental Health in Adults.” *Global Environmental Psychology* 1 (November 2023): e11405. https://doi.org/10.5964/gep.11405.

Rachmad, Yoesoep Edhie. "Emotional Resilience Theory." (2022).

Sampaio, Francisco, and Carlos Sequeira. “Climate Anxiety: Trigger or Threat for Mental Disorders?” *The Lancet Planetary Health* 6, no. 2 (2022): e89. https://doi.org/10.1016/s2542-5196(22)00008-0.

Sanz, Teresa, and Beatriz Rodríguez-Labajos. “Arts, Place, and Sacrifice Zones: Restoration of Damaged Relational Values in a Chilean Sacrifice Zone.” *Sustainability Science* 18, no. 3 (2023): 1135–48. https://doi.org/10.1007/s11625-022-01252-6.

Sterk, Marjolein, Ingrid A Van De Leemput, and Edwin Thm Peeters. "How to Conceptualize and Operationalize Resilience in Socio-Ecological Systems?" *Current Opinion in Environmental Sustainability* 28 (October 2017): 108–13. https://doi.org/10.1016/j.cosust.2017.09.003.

Summers, James K., and Deborah N. Vivian. "Ecotherapy – A Forgotten Ecosystem Service: A Review." *Frontiers in Psychology* 9 (August 2018): 1389. https://doi.org/10.3389/fpsyg.2018.01389.

Tei, Shisei, Junya Fujino, and Toshiya Murai. "Navigating the Self Online." *Frontiers in Psychology* 16 (March 2025): 1499039. https://doi.org/10.3389/fpsyg.2025.1499039.

The Lancet. "An Age of Uncertainty: Mental Health in Young People." *The Lancet* 400, no. 10352 (2022): 539. https://doi.org/10.1016/s0140-6736(22)01572-0.

Wang, Hua, Debra L. Safer, Maya Cosentino, et al. "Coping with Eco-Anxiety: An Interdisciplinary Perspective for Collective Learning and Strategic Communication." *The Journal of Climate Change and Health* 9 (January 2023): 100211. https://doi.org/10.1016/j.joclim.2023.100211.

Youvan, Douglas C. *Balancing Global Influence with Local Disconnect: Navigating the Tensions of Widespread Impact*. 2024. https://doi.org/10.13140/RG.2.2.31278.93760.