

THE ROLE OF ART IN CREATING EMPATHY FOR NATURE

BY

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Abstract

My investigation in this thesis explores how environmental art has the potential to shift public opinion and confront viewers with difficult questions through narratives artists create. This thesis constructs the argument that art can help to provide a space in which viewers can have an experience that touches them to empathize with nature and to provide a space for transformational thinking about their relationship with the environment. This space is one that encourages questioning and challenging one's beliefs and thoughts around the discourse of nature. While art is not the magical fix to make every observer of environmental art suddenly care about the environment and put solar panels on their house, it provides a space for reflection and thought on one's actions and choices. I will focus in this thesis on the body of work of two impactful environmental artists, the artist Clifford Ross and the photographer Christine Rucker. Exploring how their work provides a conscious space for viewers to think about their relationship with nature and the techniques used in their work to achieve a transformational space. My thesis will conclude with a preliminary discussion of the next steps on how to utilize art to move along the conversation about environmental issues in today's political climate.

Introduction

Dirt, screws, metal, wood, a pool liner, and a prayer are what started my fascination with how art and nature interact. As an artist and scientist, I am committed to pursuing the investigation of how science and the humanities can be used to better educate people on the relationship humans have with nature. Using elements from both art and science, I have looked at how both disciplines could be combined to create new ways of communicating the importance of having a relationship with the natural world. I gained insights into how important the environment is to the physical and mental health of a person through environmental writers like David Thoreau and William Cronon. Research on the impacts of sea level rise, climate change, habitat destruction, and pollution played an important role as well in informing my understanding of anthropogenic causes of declining global environmental conditions.

If nature is so important and vital to our survival, I find it difficult to comprehend why there have not been any major actions by various government entities to combat the anthropogenic contributors to environmental degradation. After reading a variety of papers and books I concluded that the human race has become distant from nature and simply stopped caring about its fate. For my undergraduate Environmental Studies Thesis, I explored how we learn about climate change and what strategies are the most effective in raising the public's awareness about the ways in which consumer habits, reliance on fossil fuels, and other practices that damage the environment are contributing to climate change. The strategies I found most effective for having people learn new information about climate change was the use of visuals and having an effective presenter. While researching for my undergraduate thesis, I found that compelling images

and emotionally driven messages were the most effective for creating a more urgent attitudes towards acting towards climate change. Drawing on my interest in the impact of sea level rise on marginalized island communities I started experimenting with creating artistic installations to create a place for someone to have an immersive experience of what sea level rise can look like on a residential scale. I wanted to create an experience that was emotional engaging and to help form a deeper understanding of what those island communities experience.

During my senior year of college, I created an art exhibition of a submerged urban space that was inspired by the experience of those who face rising sea levels daily. The installation was two part, the first part being a series of photos of backpacks accompanied by lists of items the owners of those backpacks would take with them in the event their house was flooded. The second part was a pool I had constructed in the middle of the gallery that invited people to step in to experience a flooded environment. The piece was meant to make people *feel and think* about the effects of sea level rise and what it looks like when a living room is flooded. However, getting myself artistically and practically to this point of narrative building and creating thought-provoking art resulted in a series of headaches, all-nighters, and an exciting process of self-discovery.



Figure 1 carry what you can- provided by Gabryella Pulsinelli

My artistic journey is a winding road, as creating environmental art was never my goal, but as I continued to experiment with art forms and installations my pieces gradually grew into being about the relationship people have with nature. My coursework at the University of Rochester reads like a jumbled mess: linear algebra, North West Native American Art, Geology lab, American History, Introduction to Drawing, Archaeology field school, and clarinet and piano lessons. These are just a sample of the courses I took. In retrospect I can see that, I was lost and did not have a clear direction for a career in the intersection of my interests. The art I created was informed by my science classes, which enabled me to understand environmental processes, history and art classes that gave me the tools to tell an effective story through the pieces I created. After four years of experimenting and uncertainty I found the goal I had been seeking. My goal throughout college was to find how I could best make the world a better place using the range of interest and talents I had developed. Through these classes and countless hours in our art center, I found that the objective of creating art about the environment that shifted people's perspectives on nature and encouraged them to rethink their relationship.

Art for me is about provoking a reaction, whether that reaction is good, bad, or indifferent. A successful art piece in my opinion is one that provokes a conversation and allows for the person who experience the art a reaction that is deep and encourages reflection. Re-examining the history of my process of "finding myself" in an academic context, I realize now that this mode of thinking started all the way back in high school during my first digital video class with Mr. Morreale, who pushed us to think deeper about what we were creating. Through video I have been able to tell stories that previously went unnoticed, including such topics as how far food travels to the lack of

awareness of the consequences of climate change. Art became about starting a conversation with my viewers and providing a space for people to ponder complex questions and topics through the artworks displayed in the gallery.

Looking back at the art I created during college, my thematic choices were always about people and their relationship to the environment, but I never really became aware of how I was gravitating towards these themes until the middle of my senior year in college. My work consisted of printing on geography maps, glitching photos of Google Earth, and manipulating photos of myself hiking. During my senior year I was getting frustrated because I was quite prolific in my production of art but could not understand what was driving my motivation. It was not until my friend Danny pointed out that my work was consistently about nature that I was finally able to piece together my motivations, I was not interested in documenting nature. Rather, from the start of my artistic career, my self-motivation was focused on putting into a visual form how humans interact with nature.

This experience of creating art around the topic of climate change made me wonder how art can play a more significant role in increasing people's awareness of the environment and encouraging introspection and reflection on how they perceive the environment. People at my senior art show started discussions with me about sea level rise and asked me questions about how it could affect them. My installation art provided the impetus for conversations that gallery goers started with me because they had experienced the art I had created, and it appeared to have engaged them on both emotional and intellectual levels. This observation led me to ponder more deeply on the topic of how the representation of nature in art has the potential to affect how the viewer

of such art experiences nature, and by extension, how people think about their relationship with the environment.

This thesis explores how art that examines human relationships with the environment and the natural world has a transformative capacity to change its viewers' outlooks on nature. The central focus of my investigation is on how art can provide a space for transformational thinking about the environment. Is there a way that art can act as a place for viewers to reflect on complicated issues relating to the environment? While there are many avenues 'environmental' art can take, based in large part on each artist's unique approach to expressing complex questions about nature. I put environmental art in quotations as that it is a complex and growing field in art. Environmental art has variety of different subsections and mediums associated with it, making it difficult to define. Artists like Andy Goldsworthy manipulate the natural world and create sculptures, while others choose to make abstract films. Environmental art is a broad subject and I have chosen to specifically look at environmental photography. Photography is an easily reachable medium for artists and viewers alike as it can be viewed in a variety of ways from a computer screen to large and small prints. I choose to focus on photography for its ability to tell stories clearly and in an accessible way. Photography has been known for its story telling an ability to represent a series of events. (Nanay 2009). The story photos create together or on their own can make viewers focus on what is included and excluded in each photo, creating a unique story in each photo. On a more personal level, photography was how I first became interested in art and is the medium that has been a constant subject of study in my academic career. Creating photos and sharing those

stories in my own work made me interested to see how other artists use their talent to show their perspective on nature.

I will focus on the body of work of a few of the most impactful environmental artists, exploring how their work provides a conscious space for viewers to think about their relationship with nature. I do not pretend to claim that art is a silver bullet for making people care about nature and develop empathy for the natural world, but rather that art can be characterized as *a tool that has myriad possibilities for both framing how humans view nature and for generating feelings of empathy.*

Environmental writers have been describing the sublime aspects of nature and its romantic qualities since 1820. David Thoreau (1817-1862) has one of the loudest voices when it comes to emphasizing the importance of having a relationship with nature and rediscovering the joy of the woods. His essays and writings talk about the importance of being in nature and how “Life consists with wildness. The most alive is the wildest.” (“Walking - The Atlantic” n.d.). He promotes walking in nature and reaping the benefits it can provide, while also advocating for the conservation of the environment. His work echoes the intellectual connection to nature and the inspiration that can stem from just being surrounded by it and reflecting on the experience. Thoreau encourages one to build a relationship with nature throughout *Walking*, emphasizing emotional, intellectual, and physical benefits one can receive from nature:

“For I believe that climate does thus react on man—as there is something in the mountain air that feeds the spirit and inspires. Will not man grow to greater perfection intellectually as well as physically under these influences... I trust that we shall be more imaginative, that our thoughts will be clearer, fresher, and more ethereal, as our sky—our understanding more comprehensive and broader, like our plains—our

intellect generally on a grander scale” (Thoreau 1862).

The lawns and manicured trees did not genuinely represent nature for Thoreau, who encouraged people to venture into the woods to gain the inspiration and to have the opportunity to become a better person through experiencing nature in its wildest form.

However, William Cronon differs from Thoreau in how people should treat nature and that the everyday greenery deserves just as much wonder as the wild. Nature that occurs in the daily lives of humans being thought as lesser is the main focus in William Cronon’s essay, *The Trouble with Wilderness*. The essay talks about the idea of ‘wilderness’ and ‘nature’ being something that is out there beyond human reach. Cronon discusses the problem with defining nature as something that is far away is one and how that leads to humans being disconnected from nature. The idea that humans are meant to stay out of the “wild” and that nature is to not be engaged by people is a thought Cronon objects to. (Cronon 1996). Cronon in his essay argues that nature is not just in the wild but surrounds humans in their everyday lives. Cronon focuses on the barrier humans have created between themselves and nature by imagining a dualistic construction in which everything human is disassociated from “wilderness” as a construct representing nature. He observes that humans often fail to imagine a place for themselves alongside nature. The argument presented is that there are some who cannot view the tree outside the window in the suburban home as nature.

This, then, is the central paradox: wilderness embodies a dualistic vision in which the human is entirely outside the natural...The place where we are is the place where nature is not. If this is so—if by definition wilderness leaves no place for human beings...also by definition it can offer no solution to the environmental and other problems that confront us. To the extent that we celebrate wilderness as the measure with which we

judge civilization, we reproduce the dualism that sets humanity and nature at opposite poles. We thereby leave ourselves little hope of discovering what an ethical, sustainable, honorable human place in nature might actually look like.”(“The Trouble with Wilderness; or, Getting Back to the Wrong Nature” n.d.)

Cronon’s approach to constructing this dichotomous relationship of humans to nature underscores how such a relationship leaves no room for engagement with nature. It becomes impossible to protect nature when there is not a relationship to be had. The idea of the wilderness needs to be redefined, humans cannot view nature as other, it is part of us.

Defining nature as ‘out there’ and other is extremely delimiting as Thoreau does, for it does not allow one to easily recognize that, the greenery outside of the office building, the flower bushes in front of your house, the small patch of grass on the busy city corner are all part of nature. The biological life that surrounds us in our everyday life demands the same attention as those in the so-called ‘wilderness’ as Cronon writes: “The tree in the garden is in reality no less other, no less worthy of our wonder and respect, than the tree in an ancient forest that has never known an ax or a saw—even though the tree in the forest reflects a more intricate web of ecological relationships.”(“The Trouble with Wilderness; or, Getting Back to the Wrong Nature” n.d.). While nature that is further from industrial development has more area and more diversity that type of environment is no different from the trees lining the street, both have value and benefits to provide to humankind.

I argue that nature is the non-structural parts of the world to better integrate nature into the everyday experience. Nature is the trees lining the street, the rainforest of

the Amazon, and every natural component on earth, it is not constricted simple by location or as an “other”. By limiting nature to “other” and the wilderness as Cronon discusses fails to wonder the nature that appears in the everyday life. The varying definitions of nature lead to confusion when trying to understand how one feels connected to the environment. When the idea of nature starts to be more about how far removed humans are from certain areas is where trouble starts. The inability to apply curiosity to the natural structures that may not be as grand as Half Dome at Yosemite is a failure. By placing nature as where humans are not sets up a lack of engagement and wonder.

Echoing Thoreau and Cronon research, a wide range of 19th and 20th century philosophers and psychologists have explored and written about the therapeutic nature and life-affirming role that developing a connection with nature can have on the human psyche. Richard Louv is a journalist whose work has appeared in *The New York Times*, *The Washington Post*, as well as other publications. The main focus of his work is on how humans and the environment interact. In his arguably most famous book, *The Last Child in the Woods* (2005), Louv echoes Thoreau in his discussion about how when children spend less time outside, they do not reap the benefits of nature. The book provides an interdisciplinary look on the effect spending less time in nature has on children and how it affects their concentration, attention, and stress levels. Louv sites a variety of scientific studies in child psychology, ecology, economics, and his own field notes in making his claim that when children spend time in nature, they have reduced stress levels and stronger creative thinking skills compared to those who did not spend time in nature. However, the findings of his book were not widely adapted, as teenagers

typically spend nine hours a day looking at some sort of screen and younger children spend six hours (NW, Washington, and Inquiries 2015). This book came out in 2008, just one year after the release of the iPhone, so while there was a movement to get kids back to experiencing nature and outside the house, the rise of smart phones was happening at the same time. Even with the science being clear about the benefits of nature on children's psyches, children are still choosing to spend a large part of their free time inside their homes. People often have chosen to ignore the science of the benefits of spending time in nature.

I hypothesize in this thesis that art can provide a space in which viewers can have an experience that touches them to empathize with nature and to provide a space for transformational thinking about their relationship with the environment. While art is not the magical fix to make every observer of environmental art suddenly care about the environment and put solar panels on their house, it provides a space for reflection and thought on one's actions and choices. Art can push viewers to think about the environment and how they connect to nature through new thoughts and feelings provoked through the act of viewing art.

The first chapter of the thesis will lay the ground work on studies of environmental art that examines the current spectrum of thought about nature in one's daily life and how art can reframe one's thinking. In the first chapter I will explore the intellectual and emotional benefits that nature and art can provide to those who take time to experience it, looking in particular at the benefits of those who spend time in nature. Research on this topic establishes the theoretical framework I apply in the second chapter, in which I employ the work of the artist Clifford Ross and the photographer

Christine Rucker to examine how narrative in art helps to reframe the art viewer's thinking on the environment. Environmental art in recent times has become a tool for artists to communicate stories about nature and the environment. My conscious decision to limit my discussion and analysis to these two photographers is a result of the way in which their works "spoke" to me and resonated with my own ideas about the role art and photography can play in engaging viewers in a dialogue about the natural environment and how it impacts our world. I have examined for this thesis just a small sample of work from these photographers' vast body of work, in order to engage in a 'deep dive' into some of Rucker's and Ross's key works. One of my most important findings is that, based on the findings about the psychology of viewing art which have demonstrated that art can stimulate the activation of particular areas of the brain engaged in self-adjustment and meaning making, is that such experiences form an important bridge to changing perceptions of one's world. By viewing art with specific environmental message, which I will refer to as 'environmentally-focused art' in this essay, people are given a chance to rethink their relationship with nature and how their actions might affect it. The second chapter will focus on introducing who Ross and Rucker are and what motivates them in their work. It will dive deeper into the use of narrative in their work and how that creates a transformative thinking space. The third chapter showcases how artists are able to bring rarely considered environmental destruction that is typically hidden from society, employing imagery that 'makes the invisible visible' by providing tangible images and themes to contemplate. My thesis will conclude with a preliminary discussion of potential next steps for utilizing art to move along the conversation about environmental issues.

Chapter One

This chapter has two goals, first to define art as a transformative space, and second to outline the emotional/intellectual connections between nature and art. There is a spectrum of how people connect to nature and how people choose to interact with it. Some choose to seek it out, others ignore it, and some like just looking at photos. This paper examines how art can be used to steer people towards thinking about nature differently and hopefully in a more empathically way. It does not include an examination of how people are or are not disconnected from nature, or of why some people show a lack of empathy towards nature. This paper's aim is rather to look at how art can be employed to create a space in which nature is regarded as an important entity and to start a conversation with the viewer about ways to protect nature from the counited destruction. While each individual fall at a different point on the spectrum of empathy towards nature, many do not have opportunities to frame their understanding or put it in the context of their relationships with nature. What art does is to create a 'transformative space' to start this process of both developing empathy and focusing it on a deeper understanding of human-nature interrelationships. While this author would never make the claim that art is a cure all for saving nature, it is plausible to assume that art can be an important tool for furthering communication strategies and deepening our society's understanding of the affirming role that nature can play in people's lives.

Before talking about the benefits of nature, I would like to define what is a transformative space, this is not a term in any book but one I have come to define. A transformative space is a space that allows for someone to think in a way that opens their

brain to think differently or more deeply about the subject they are currently encountering. The goal of a transformative space is to encourage one to challenge their way of thinking about the topic being presented. The goal is not to change behavior or make someone think a specific way but to give a space to open one's mind to thinking about a topic in a new way. It is possibly that the space can lead someone to make decisions to change their behaviors but is not required.

A transformative space is not about producing a life-changing experience or a huge eye-opening moment. A space is transformative because it is able to promote change in thought. The space is created through some means (art, writing, discussions, lectures, murals) that allows for critical thinking to rethink one's perceived notions. The transformative space that I explore in my thesis is the one that Ross and Rucker create through their art. They create a transformative space through utilizing different techniques in art to tell a story. Through their story telling they are able to create a space where one can think about the discourse of nature and what their current connection to nature is. What a transformative space than can possibly do it to encourage more positive changes towards their thoughts and actions towards nature.

What this transformative space does is to create a reminder of all the good nature does for us. Why, from the perspective of this author and other like-minded researchers, is it so important to understand why nature and art affect humans on an intellectual and emotional level? Knowing the benefits nature is provides gives a better understand when looking at environmental focused art. By placing nature in the context of art is allows to look at how art can create a more empathic view of nature. By looking at the benefits of nature it can further the understand. Today's children and adults who grew up during the

rise of cellphones and videos games have been more prone to spend time inside instead of outdoors. It is estimated that only ten percent of American teenagers spend time outdoors everyday(“This Is Your Brain on Nature” 2015). Some choose not to go outside but instead watch tv or play videos games and are spending less time outdoors or not finding time to visit green spaces outside their houses. The lack of time spent outside is reflected in the fall in numbers of visits Americans make to national parks in the last decade since the invention of email(“This Is Your Brain on Nature” 2015). The less time spent in nature is also reflected in where people live. In general people are flocking from the countryside and suburbs surrounded by trees and greenery to the skyscraper-filled cities. The United Nations have said for the first time in the history of the world more people are living in urban areas instead or rural (“How Just 15 Minutes in Nature Can Make You Happier” n.d.). The phenomenon of migration to cities that has taken place in the last – decades has led to fewer people having daily access to nature, therefore nature deficit order rises (“How Just 15 Minutes in Nature Can Make You Happier” n.d.). With less time being spent outside or even seeing nature, the benefits are lost¹. By understanding the benefits nature can provide allows to understand the importance of protecting the environment.

Intellectual Connection to Nature

The natural world has been a muse for artists and scientist alike that inspires the work that drives humanity forward. While the majority of research about benefits of the natural world is done about a direct interaction with nature, there are also some studies

¹ The benefits I am referencing are the ones I discuss in the rest of the chapters which includes reducing stress, heighten level of concentration and creativity.

about the indirect experiences. In a study about how pictures of nature and urban spaces affect the brain it was shown that viewing photos of nature reduces stress (Van den Berg et al. 2015). Reading, viewing pictures, and other indirect forms of art do have positive benefits, but the affects they have on the human mind are no as robustly studied. For the majority of the rest of the chapter I will be discussing the effects of spending time physical in nature as there is not much research on indirect experiences.

Destruction of the environment is harmful not only to nature but to the minds of humans as well. The American novelist and environmental activist Wendell Berry in his writing acknowledges the importance of nature in regards to thought, writing: “How much can a mind diminish(sic.) its culture, its community and its geography—how much topsoil, how many species can it lose—and still be a mind?”(Wendell Berry 2000). He comments on how the destruction of the environment is equivalent to losing parts of the mind. Berry claims that harming the environment it is only going to hurt the human species in the process. Every time a tree is cut down, a local park is closed, or any green space is harmed, the true harm comes later when it no longer contributes to the wellbeing of humans. When parts of nature are destroyed it takes away that inspiration one could have gathered for art, self-enlightenment, or just pure happiness. The loss of nature many argue is the loss of imagination, thoughts, and ideas, which is the arguments of environmental writer David Henry Thoreau. In his essay “Walking” chimes the same message. Thoreau links the destruction of the forest to lessening of the human mind: “We are accustomed to say in New England that few and fewer pigeons visit us every year. Our forests furnish no mast for them. So, it would seem, few and fewer thoughts visit each growing man from year to year, for the grove in our minds is laid waste”

(Thoreau 1862). Nature is part of us, and Thoreau argues that the destruction of nature leads to the destruction of one's mind. Thoreau uses the metaphor of the pigeons to show something that is an everyday occurrence, like pigeons, can potentially have harmful effects on humans simply because there was a higher removal of trees. With the removal of the trees not only caused harm to the pigeons but to those who lived around there as well. The impact of removing trees is not just an ecological but psychological as well.

Destruction of nature is not the only barrier blocking an intellectual connection to nature. The lack of time spent in nature is one of the barricades to experiencing the intellectual benefits of nature. As stated, before people are spending less time in nature and there is a variety of people who do not have access to a green space. An example of the deficits that result from human isolation from nature are studies which demonstrate that not spending time surrounded by nature results in a decrease in attention spans and creativity. "Nature Deficit Order" is the word coined by author Richard Louv in his book *Last Child in the Woods* describes society's current state of disconnect with nature, illustrated in part by the evidence that children are spending less time in nature than in previous generations. It is important to note, this is not a medical term but an attempt to put a name on the effects of spending less time outside. Louv's main argument is that we need nature in our lives and without it there are various ailments that follow. In his book he cites different studies on how nature provides a variety of benefits such as reduced stress levels and higher levels of concentration. The text talks about biophilia, the urge to interact with other forms of life, and the role it plays in helping to develop oneself. Interacting with other forms of life (human, animal, or plant) is an instinct and plays a critical role in the development of children. He compiles various scientific studies and

says, "supported by a decade of research that reveals how strongly and positively people respond to open, grassy landscapes, scattered stands of trees, meadows, water, winding trails, and elevated views"(Louv 2008). Nature makes us happy, there is no denying that, but it seems to be a fact that is forgotten easily. Even though we are drawn to nature and the role it plays in helping us develop we still choose to sit by and watch it get destroyed.

According to Louv's claims, the absence of opportunities in day-to-day life to connect directly to nature through experience and immersion, results in both a loss in quality of life and a diminishing of creative abilities. Louv discusses how outdoor play in green grassy areas leads to kids having a more vivid imagination and better creativity development (Louv 2008). Playgrounds have set structures and elements to them that limited children to what they could imagine. However, during creative play in grassy areas, the children imagined castles, motes, pirates and full storylines. The benefits of playing outside are not just a matter of being active and healthy, it benefits the mind. In children who feel on the autism and ADHD, spectrum nature was found to be calming and they exhibited fewer symptoms of their disorder.

Nature is special, as evidenced by the comforts and refuge it provides to individuals and to communities. While it may not be evident at first the destruction of nature and lack of spending time around green spaces has a devastating effect on the human physic. Why is that something that was once such an important part of our lives is left to die alone? Nature provides humans with ideas, makes us calmer, and even helps us to concentrate. Protecting the environment is not just about protecting the ecosystem, it is about preserving our minds.

Emotional Connection to Nature

Nature not only provides intellectual benefits to those who have direct contact with it, but its influence goes deeper to the emotional level. It is difficult to find an adequate substitute for direct contact with nature. There is an emotional connection to nature that is unseen but felt, as nature has the ability to reduce stress and to be a positive influence on an individual's state of mind. However, as mentioned above, fewer people are spending time in nature and others believe that they should not interacted with nature.

The way children are educated can pose a barrier to having a relationship with nature by teaching them about the terrifying aspects of nature without balancing it with good. This fear of nature is real, children especially are afraid of nature, a term Diane McKnight refers to as "ecophobia" (McKnight 2010). Young children are often afraid of going into the woods and nonurban areas, as they are taught by their parents and elders that it is a scary place and to avoid. McKnight discusses how environmental science education is insufficient for counteracting such fears. Consequently, more children tend to fear nature. In a classroom, children are taught about all the destruction cause by natural events or about scary poisonous animals that live in the woods. They are generally not educated to appreciate the benefits that nature can provide. McKnight refers to using picture books and narrative to engage children more and enable them to have a stronger connection with nature. This suggestion by McKnight leads way to ask the questions on how art can then help kids understand how nature can be beneficial. If a child is taught nature is frightening and refuse to spend time outside, then they are no longer receiving the benefits nature can provide. Being scared of nature blocks any

relationship or connection from forming and limits how one can feel about the environment.

If one is taught to fear nature, they lose out on a free way to reduce stress, resulting in a population of people who experience stress more often. Reducing stress levels is something nature is well known for. However, despite stress reaching epidemic in society very few make more room in their lives for nature.

The American Psychological Association sites stress as a public health crisis: “Chronic stress — stress that interferes with your ability to function normally over an extended period — is becoming a public health crisis.” (“Stressed in America” n.d.). Louv writes extensively about the stress reducing properties of nature in *Last Child in the Woods*: “the findings of over one hundred studies that confirm that one of the main benefits of spending time in nature is stress reduction.” (Louv 2008) Not understanding the benefits nature can cause a loss, as many could benefit from a walk in the woods but are too afraid to try. Fear of nature and the unknown contributed to lack of connection in nature one can have.

The lack of the presence of nature in people’s everyday lives is another contributor to the stress they experience on a day to day basis. Louv’s book provides many examples that contrast those who are regularly exposed to nature with those who were not. Those who spend time in nature saw the benefits such elevated concentration levels and reduced levels of stress. Is it that our destruction of nature is contributing to the rise of stress we are seeing in America? I cannot say definitely, but what can be said is that with fewer trees and green places there are fewer natural ways for one to reduce stress. Neighborhoods with more tree cover had residents reporting they felt healthier and

it was shown they were more resilient to stressful events (Frumkin 2016). The act of having ten trees in a city block has astronomical effects: “In that study an increment of ten trees per city block improved self-reported health to the same extent as a \$10,000 increase in income or being seven years younger!”(Frumkin 2016). It seems nature is a ‘natural’ answer to helping improve the everyday lives of those living in urban areas. While it cannot be linked that the destruction of nature has led to more stress it can be shown that with just a few trees there is less stress to be had by the residents.

Based on this evidence, one can make the claim that the benefits one can receive from nature on an intellectual and emotional level are being blocked by lack of sufficient engagement with the environment and the lack of awareness of everyday greenery. What can be done? In the ever-growing urbanization of the world and reduction in the amount of time people spend outdoors, there must be alternatives and creative solutions to bringing nature back into human daily life. What if art could help to bring humankind closer to nature? It could be that intermediate step between entering the wildness of the woods by giving viewers the same benefits of nature but without having to find some forest in the middle of Chicago or travel for hours to a pristine landscape. What is interesting is that viewing art has some of the same emotional and intellectual benefits nature provides.

Intellectual Connection to Art

Art is known to be intellectually stimulating, as it engages various parts of the brain. The brain is affected in areas such as long-term thinking, meaning making, and even sometimes epiphany thoughts can happen. Neuroscientists have studied the physical and emotional effects through brain mapping and found it engages different parts of the

brain responsible for many different modes of thinking. In an article authored by Pelowski, Luring, and Leder look at current modeling of the art experience and summarize the impacts art can have on the brain. They list 12: affect, physiology, actions, appraisals, meaning-making, novelty, transcendence, aesthetic, negative affect, self-adjustment, social, and health (Pelowski et al. 2016). Art engages the mind in various ways, now not all of these will be affected by every piece of art, but it shows the benefits of what viewing art can have.

The long-lasting impact that art can have on a viewer is an important factor in utilizing art to provide a space for transformational thinking about nature. Pelowski found that art can have a long-lasting impacting on the viewer, and this is important in helping to form a connection with nature. He states: “Art is also argued to create longitudinal impacts. These include: (10) *Self-adjustment*, changes in one's personality, worldview, cognitive ability”(Pelowski et al. 2016). Being able to change perspective is important in creating a transformative space and art providing that space to self-adjust. Art can, therefore, help with creating a long-lasting impact in regard to how one thinks about nature. Placing nature in the context of art can possibly help with fighting the discourse of nature is a place where humans should not be.

Pelowski's research demonstrates that art does, in fact, promote meaning-making. This ability of viewers to translate art into something personally meaningful is extremely important, allowing viewers to use art to initiate a discover process that challenges pre-existing assumptions and beliefs. “(5) *Meaning-making* as well as ability to strengthen conceptions, help us to learn, challenge our ideas, or even lead to insight.” (Pelowski et al. 2016). By placing nature in the context of art one can assume that it will promote the

brain to think about nature differently when it is framed in a context than what they are normally used to. By placing nature in a gallery, it helps to show someone what nature is about and can help to challenge their preconceived notions (if they have them) and to start to look at nature differently.

The Emotional Connection to Art

Just like nature, art provides emotional benefits to those who experience it. Pelowski, Lauring, and Leder refer to emotional outputs' art can have on the brain. Just the act of viewing art promotes an emotional response through the parts of the brain activated, "*Affect*, specific emotions/moods evoked by content or derived from the act of viewing"(Pelowski et al. 2016). Art is able to create that space of change through the emotional responses it creates. Photos have a way of creating a space for people to discover information about the environment in an alternate setting than the news. While their occasionally news pieces about the impacts of environmental disasters on people the news tends to focus on the bigger picture. It can be difficult for people to grasp how climate change or sea level rise affects them personally. There is a belief that that 'information is enough' and once someone knows the facts they will change, this is not accurate (S. C. Moser and Dilling 2007, 495). This is phenomenon is known as "information deficit", the idea that facts and logical reasoning is enough to change behavior. This is not the case as Susan Moser, a scholar in climate change communication, states that there needs to be personal and emotional connection to change behavior. Thus, presenting environmental problems in art allows for a more emotional engaging message and for people to come to their own conclusions. Art

provides a foundation for viewers to take actions through self-motivation instead of being told by a scientist or reporter who is unknown to them. If humanity is going to change to fight climate change people need to be emotionally invested and feel invested personally, something that art succeeds at.

One emotional benefit that art can provide is the ability to reduce stress through viewing it. Just like nature art has been shown to improve health: “*Health*: art may even have a general impact on health and wellbeing, for example through reduced stress” (Pelowski et al. 2016). In a study conducted in London, it was found that spending 35 minutes in a gallery viewing art reduced stress levels (Clow and Fredhoi 2006). The study compared the stress hormone cortisol before and after each visit through a saliva swab. The levels of cortisol at the beginning before entering the gallery were above normal but dropped to normal levels after leaving. What is unusual is that it normally takes about 5 hours for cortisol levels to drop naturally, instead, it dropped in 35 minutes after walking around the gallery.

Art and nature have some of the same beneficial effects: reducing stress levels, encouraging engaged thinking, and even contributing to feelings of euphoria. What if there was a way to combine these effects? A study showed a group of people urban and natural sciences and found that the photos of nature engaged the part of the brain that dealt with empathy while urban scenes engaged fear: “Then the volunteers were looking at urban scenes, their brains showed more blood flow in the amygdala, which processes fear and anxiety. In contrast, the natural scenes lit up the anterior cingulate and the insula—areas associated with empathy and altruism. Maybe nature makes us nicer as well as calmer.” (“This Is Your Brain on Nature” 2015). Another study conducted found

just viewing photos of nature was enough to reduce stress (Van den Berg et al. 2015). If photos produce a positive feeling, then it makes sense that art can do the same thing, as it is just a visual representation of nature in different mediums.

There are a series of barriers that prevents many people from being able to experience nature intellectually or emotionally. Many do not have the means to make it out to the “true nature” or understand the discourse of nature being all around us, this is why art helps to bridge that gap. Art encourages people to form relationships with nature and to think critically about what nature is. Art creates a space that allows for transformational thinking about the environment to take place in a current society where nature is left out of daily thinking.

Chapter Two

This chapter focuses on the work of Clifford Ross and Christine Rucker, examining how both utilize storytelling in their work to create an immersive experience. By creating an immersive experience, these photographers pave a path for viewers to start thinking different about their relationship with the environment and in the long term their behaviors towards it. Both Ross and Rucker use photography as their main medium and nature as the subject for their work but take different approaches to frame the environment. While both are able to create an emotional experience through storytelling, they achieve it with different techniques. Ross's work focuses on creating the most realistic experience of nature through photography in order to bring the viewer as close to nature as possible. Ross was born in New York City in 1952 and received his bachelor's in Art and Art History from Yale University. While Ross is skilled in painting and other mediums he is most well-known for his photography work and digital manipulation of his photographs. All of his work aims to achieve one goal: to recreate the sublime feeling of nature. ("Biography - Clifford Ross" n.d.). Rucker's background in photography differs from Ross, as she spent years photographing for newspapers and non-profits. In 1989 she earned an Associates in Art in Photojournalism and started to work for a variety of different newspapers creating photo stories that spoke to her. Throughout all of her work, she focuses on telling the story of the things she values most, which includes the environment and wild spaces.

The storytelling aspects of both Ross's and Rucker's photos achieve an immersive experience that viewers are able to emotionally connect to nature through their work.

Ross focuses on bringing the sublime aspect of nature to his work by producing art that evokes the emotions he felt while photographing. For example, while photographing his series on hurricane waves he wanted the viewer to feel the sense of fear and beauty he felt (Ross, n.d.). He wants to create an experience that is more than just showing people nature and getting people to feel as if they are standing in the exact spot he was: "I pay attention to nature. I feel something, or I see something, and basically, I want to share that. I like to see if I can get other people to experience something that I think is extraordinary." ("Clifford Ross's Natural State" 2015). Ross's immersive sublime pieces utilize extreme detailing and, in some case, massive scaling to overwhelm the senses. Ross wants people to feel the emotions he felt while he photographs nature, it is about retelling his experience in the wild through his photographs (Clarke and Thompson 2015). Rucker differs from Ross as she focuses on photographing people in nature. She believes that people can only see themselves through others, which is why many of her projects about the environment include people in the images (Rucker 2018). One of Rucker's main techniques in creating an immersive story is including site-specific landmarks into her photographs that she knows will be recognized. Another unique approach is she brings in other places that affect nature but go unnoticed into her work to tell a well-rounded story to educate viewers if they were unaware.

What attracted me to research Ross and Rucker's work was how immersed I became when I first viewed their work. I came across Ross's work by accident. I was on a class trip with my art seminar in college and Ross was one of the artists on display when we visited MassMOCA. When walking into the room where Ross's largest piece *Mount Sopris I* was and immediately taken back. I was not paying attention while

walking into the room and was almost startled when I saw how large and detailed the piece was. The scale of the piece engulfed me, and as I viewed it from every angle absorbing as much of the photo as I could. This piece stuck with me for years after viewing it as I used it as reference and inspiration for my own work. For years Ross's work was always a talking point in conversations for me and made me realize there was something more to discover about his work.

A similar fascination with Rucker's work happened when I viewed her work at the opening of her *Dance for the River* project at Southeastern Center for Contemporary Art. The use of dancers and careful placement along the river's many landscapes made me study each photo and caption closely. Dance has always had a special place in my heart as my mother and sister all dance. These photos brought back memories of my sisters dancing in the backyard and the emotion they would show on stage. To me, it made complete sense to use dancers in the river to create an emotional experience. Rucker was able to weave the complicated history of the Yadkin River by strategically photographing dancers along key parts of the river expressing a variety of emotions. The balance of joy, anger, and sadness makes the series show the life of the river as well as the problems it faces

Through their visual techniques, Rucker and Ross create an immersive experience that reveals each artist's perspective on nature, in turn helping to create a space that allows for thinking about the environment in a more empathic way. I had the chance to talk to Rucker about her work and what her goals for the project was. Rucker specifically wants people to rethink their connection to the environment and wants to promote

awareness of the river (Rucker 2018).²The transformative thinking space Rucker aims to provide is a side effect of Ross's work. While not his main goal, since Ross's work is emotionally driven it creates that space for viewers to start to feel and act differently towards nature. What both Ross and Rucker achieve through their work that helps build empathy for nature which sets the foundation for individuals to change their behaviors to better the environment. To take a closer look at how Ross and Rucker's art provides a transformative thinking space let's examine examples of their work.

Rucker's *Dance for the River*

One of Rucker's most recent work is a series of photos focused on the Yakin River in North Carolina entitled *Dance for the River*, it creates a visual story to engage the viewer to start to build empathy for the river. This project is a collaboration between Rucker, University of North Carolina School of the Arts Dance and the Yadkin Riverkeeper that "celebrates art and river conservation"("Dance for the River" n.d.). The collaboration between the three unlikely parties was to tell the story of the Yadkin River to bring light to the challenges the river faces every day. Through this project, Rucker aims to tell the story of the "delicate balance between human and nature" so that people can see the beauty of the river but also be aware of the problems plaguing it (Rucker 2018). This series engages viewers through its use of dancers as a focal point in each of the photographs. Rucker in her work believes humans can only see themselves through others and using dancers for this project was her way of creating a more engaging story than just pictures of the river. By using the dancers in a space that is rarely seen in

² Interview took place over the phone on March June 18th, 2019.

everyday life she brings light to an old problem in an innovative way. The dancers make the Yadkin River more interesting and relatable for those who may not spend time along its banks. The photos provide a thought-provoking element by adding the dancers as the dancers are able to bring more attention to the problems facing the river by their placement and facial expressions.

Rucker specific use of places and landmarks around the watershed is one of the elements in her work that is able to create a space to build empathy for the Yadkin River. By building a more empathic view of the nature Rucker is creating a pathway for people to make changes in their lives and take action to help protect the Yadkin River. Rucker was making *Dance for the River* for a specific audience, the residents who live in the Yadkin River Watershed. The use of familiar places can create a more personal connection to the photos Rucker presents. Park Ranger's in Alaska applied a similar theoretical approach when studying how to effectively teach people about climate change in a natural park setting. One of the theoretical perspectives employed was something called "place-based education", the idea that learning about one's community and tapping into their emotional connection is key in promoting changes in behavior (Thompson, Davis, and Mullen 2013, 187). The park rangers used a series of historic photographs to compare the landscapes from years ago to the current environment to show the changes over time. The studied concluded that climate change communication should look further into using "place as a medium" and further placing social-emotional meaning on places (Thompson, Davis, and Mullen 2013, 186). This case study on using photography in Alaska shows the potential of storytelling through photos to help promote social change to protect the environment. This brings Rucker series on using place attachment and

landmarks important to the river and community as an effective tool for promoting a space of reflection and thought about the Yadkin River.

The use of place-based attachment in Rucker's photography creates emotional meaning to the community she presents it to and allows for these photos become a call to action to protect the river. Place-based attachment is the idea of humans having value and showing emotional connection to specific places. She uses chicken farms, Duke Energy property lines, and the aluminum smelter plant dam in the series to show how each has harmed the river throughout each of their histories. Those who live along the river recognize these landmarks and others who may have not known about their existence are educated through Rucker's work. Her ability to make photos as local as possible is a praised practice among climate change communication scholars as a way to promote change in a community (S. C. Moser and Dilling 2007, 500). Scholars say that making local issues the subject of the message is an effective way to stimulate action towards solving the issue. This makes Rucker's use of local landmarks a catalyst for change because she focuses on problems affecting the local community. Her photos can allow for people to see the problems plaguing the river, and to understand how each place ties into the overall story. One can either choose to act or not, however, everyone is affected by the river. It is in the end up to the individual viewers to choose how they will change their behavior based on the information and stories Rucker shares. Rucker's work creates a space to ponder the individual and collective actions that affect the river and sets up that transformative space.

The use of the local dam leads to an emotionally engaging experience for the viewer as that in turns provides an empathy building for the audience which as a result

creates a transformative space. *Dance for the River* is a space that invited viewers to think differently about their actions by placing the issues of the river in the context of art. Research has shown that people pay attention more when they are emotionally engaged, and it tends to stick in the long term (Curtis, Reid, and Ballard 2012). As mentioned in chapter one art at its core is emotionally stimulating. Rucker's work takes emotionally engagement a step further by using place-based narrative to create a more tailored message to her target audience. The landmark I will talk about specifically is the Narrows Dam, as it appears in multiple photographs and has an extremely harmful effect on the river. Not only dams themselves harmful to ecosystems this dam in particular polluted the river for over 90 years.

In Surrender and Narrows Dam

the use of the dam not only is emotionally powerful but creates an immersive story through the framing and dancer's body language. For 90 years the company Alcoa smelted aluminum, the plant closed in 2002 but



Figure 2 *Narrows Dam* by Christine Rucker Source: <http://christinerucker.com/dance-for-the-river>

cyanide, fluoride, and other toxins affect the river to this day ("Dance for the River" n.d.). Rucker decided to use the dam due to its effect on the river to emotionally engage her viewers and to show the destruction the plant caused. Rucker uses the long-term effects of the toxins as a way to influence the viewers' emotions and as a result this creates a more empathic view of the river. Rucker knows that people need to be emotionally invested if there is to be a change in people's behavior and villainizing the corporation that built the

dam is one way to get someone to care. By photographing the physical manifestation of Alcoa attempt to manage the river creates a narrative making the dancer/river the protagonist. The exquisiteness of the dancer and river contrasts against the concrete structure of the dam, making visually a beautiful image and creating an intense story at the same time. The dancers body language admits sadness and loss of hope the photo still is stunning. This push and play with beauty and ugliness is a way Rucker is able to provide that space for people to reflect on the river and the effect the damn has on through the story she presents.

The framing of *Narrows Dam* makes this photograph a successful immersive story telling experience that builds empathy for the river through the dancer. While those physically located close to the dam may understand the harm it has caused to the Yadkin River someone more up or downstream may not understand the full effect. This photo educates those who were unaware and reminds those who live close. In *Narrows Dam*, the dam takes up most of the frame overshadowing the dancer. The dam is over toppling her as she stands to the left side of the frame. However, placing the dancer at the left side of the photo communicates that she is the central idea of the photo. It is traditional to place the most important element of the photo on the left: “The left side, in turn, is distinguished for being the more central, the more important, and the more emphasize by the viewer’s identification with it.”(Arnheim 1974) Therefore the viewer

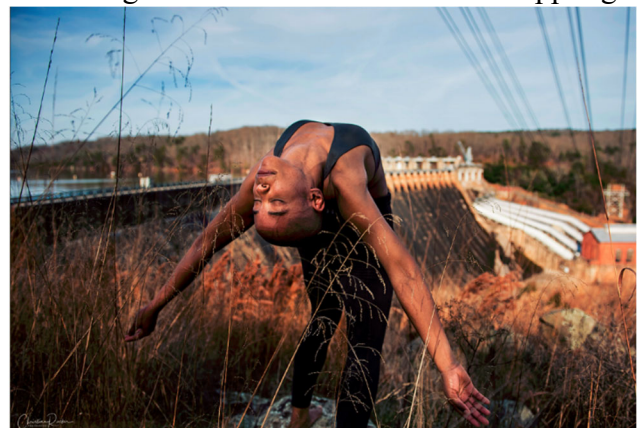


Figure 3 *Surrender* by Christine Rucker Source:
<http://christinerucker.com/dance-for-the-river>

takes in the dancer as the most important part of the photo, making the photo beautiful at first but as the eyes find their way to the dam it is not as pleasing. The dancer becomes the protagonist up against the monster of the dam. By placing the dancer to the left and overshadowed the viewer becomes more empathic towards the dancer and river.

In the photograph *Surrender* Rucker continues the story of the aluminum smelter plant and the damage it has caused over the past 90 years, continuing the narrative of the sense of dissonance between the dancer and her surroundings of the dancer against the dam. *Surrender* focuses on the dancer in the foreground and placing the dam in the background of the photo. The title and position of the dancer show the helplessness that can be felt when facing such a large industrial power. The dancer is expressing the hopeless feeling of how the aluminum smelter at the dam polluted the river, it makes one question what actions were taken and how to fix them. However, this photo is juxtaposed against others and is just a portion of the story. This is the point where one wants to give up but when looking at the other photos of the river and dancers shows a more hopeful sight.

Rucker's use of the local landmark of the narrows dam tells a story, creating an emotional space to build empathy for the river and create a transformative experience. The narrative throughout the pieces that include the narrow dam achieves Rucker's goal of creating an uneasy feeling while balancing the beauty of the river (Rucker 2018). She is setting up space for those who see her work to start thinking about the river in a different light and steps they can take to keep it the healthiest they can. Rucker understands that people do not want to hear about the harm their actions can cause, but to promote change the subject needs to be talked about. She aims to tell those stories people

need to hear but don't want to hear (Rucker 2018). The series is about bringing the Yadkin River and to tell the story of the river so people can start to care more about a piece of nature that gives them water every day.

Ross's Landscapes and Storytelling

Ross's approach contrasts with Rucker's. He focuses on the grandeur of landscapes of water and mountains to create a story focused on whose emotional connection to nature. The focuses of the art are solely on nature itself with no humans gracing the photos. He wants to focus on the sublime in his work to create an emotional journey for his viewers. The story Ross tells is more personal, as he is expressing his own emotions about nature and placing them on to his viewer. His hyper detailed landscape photography focuses on the raw emotions he felt while he was engaged with nature. Ross writes about his own work: "But art making has a higher calling than reaching for the traditional fundamentals of any medium. Art is charged with capturing and expressing emotion, while giving the viewer an experience that triggers a new more vivid perception of the work." (Clarke and Thompson 2015) He is able to create works that express emotions through his use of scale, color, and content. *Sopris Wall I* is an example of how Ross transfer his emotions of the nature into the gallery for the viewer to see through the use of scale and hyper detail in the piece. Each of his techniques he implies is about creating different emotions and to try to get the audience to become more empathic towards nature.

Sopris Wall I use of scale and wood printing are some of the technique Ross implies to evoke the awe-inspiring feelings of nature which creates an immersive experience. The piece is a 24-feet-by-114 feet negative of Mount Sopris that is located in Colorado. Ross uses is unique style of printing cured ink on wood panels for the display. This use of printing creates a more 3-D texture and brings the photo to life as an object, making a more interesting visual experience. As the wood panels are thicker than traditional paper and the use of the wood creates a more authentic feeling of nature.



Figure 4 *Sopris Wall 1* Source: www.cliffordross.com

Looking at *Figure 4* it can be seen the massive size of the piece, looking at how short the man is reviling how massive and engulfing the photo truly is. Ross's deliberately printed massively in order to create an immersive experience that feels as if you were standing in the valley. Not even from the

second-floor balcony the entire photo be viewed. The scale of the piece forces the viewer to move around in the space to get the entire picture. The viewing experience of this piece is as large as life, twisting the viewer's thoughts and presenting an overwhelming natural landscape in an indoor space.

The scale is matched by the unusual use of color and material that further create a space of intrigue for viewers to diver deeper into the emotional journey Ross is taking

them on. The emotional story Ross takes you on is aided by his use of color, or in this case lack of color. Instead of doing the obvious and printing a highly detailed colored photo Ross takes the less doctrine approach and uses the negative of the image. The combination of the sepia tone and scale creates a sublime experience for the viewer, which is Ross's goal. The colors being not what people expected combined with the scale creates an unusual experience that turns the viewing experience on its head. *Mount Sopris* I am not the typical color landscape photo, it is an immersive experience that allows for the audience to experience the closest thing as possible to nature. To take it one step further Ross designed an app for one's smartphone to be utilized to reveal the true-life colors of the mountain. The overwhelming feeling the piece creates through all the immersive details is what makes this piece a catalyst for building empathy towards nature. The emotional connection felt towards the mountain through each of Ross's carefully curate techniques can have a transformative quality on how one thinks about nature.

While *Mount Sopris I* focused on the awe effect of nature Ross's *Hurricanes* series takes a different approach, in this series Ross explores the darker feelings nature can make one feel. The series focus on the waves produces during hurricanes and the rough surge that follows. It is importance to understand how Ross captured the images of the waves and why he felt fear and anxiety while photographing. When Ross first started photographing waves in 1996, he had no regard for his safety and went into the water while the surf was dangerous with only fisherman wharf pants tied up around his waist. He was physically engulfed in the middle of the ocean, he was not photographing the waves on the shore. Ross immersed himself in the hurricane chaos to create the most

authentic photos he could for the gallery. Throughout the years he got smarter (and safer) using full hooded wetsuits and having a rope tied around him while his assistant stood on the shore. When in the water, Ross would sometimes be all the way up to his shoulders, even if the photo looks like as if he was on the shore. This dedication shows how far Ross went for his photos and how scary it was facing hurricane-force winds and waves. The fear he felt while photographing the waves is what he aims to communicate.



Figure 5 *Hurricane XV* source: cliffordross.com

The story Ross presents in *Hurricanes* is one of anxiety and wonder through the use of black and white photographs. While these photos were printed quite large, but not at the size of *Mount Sopris I* the key element of these photos was their lack of color. As taking color away

makes the waves haunting and not the peaceful waves one might see on a beach vacation. Ross wanted viewers to feel the feelings of anxiety he felt while photographing but at the same time admire their beauty: “still image should have the same effect on the viewer that the actual wave had on me”(Ross, n.d.). The lack of color creates large forms of black that create a sense of eeriness and beauty. Everyone associates shades of blue and teal with water which help to determine the scale and size of a wave. By making the photos black and white the sense of scale is thrown off and that information is made unclear. *Hurricane XV* is an example of how using black and white evokes a feeling of anxiety but mixed with sheer beauty. The black wall of this wave makes it impossible to

tell if it is 1 foot tall or 10 feet tall. The menacing wall of black is balanced by the calm grey sky, showing how the ocean is a beauty but a terror. The narrative Ross is able to tell through his *Hurricane* series allows for the viewer to connect to delicate balance between wonder and fear when it comes to the ocean. This series has many photographs that viewers can engage and immerse themselves in. While this photography may not build empathy due to the anxiety, they can cause they still create a space for thinking differently. These photos are typically shown in a space in regard to how climate change supercharges hurricanes. By placing them in this context a viewer is able to see the effects of climate change and to possibly develop a deeper understanding for nature. Thus, a space for transformative is formed through these terrifying but awe inducing images.

Ross and Rucker use their unique techniques and perspectives to tell stories that illustrate ways in which nature creates a space for the audience to reevaluate what they think they know about the environment. Both of their approaches have in common the creation of emotional experiences that allow the viewer to deeply engage in the subject matter of their photographs. Thus, the viewers' sense of an emotional connection to the subject matter makes them more likely to change behaviors that could harm the environment. Rucker and Ross create a space through the art to question their relationship with the environment and to have transformative thoughts. The art leads them to question their own thoughts and actions towards nature.

Contemporary artists in general have aimed to tell stories drawn from their observations and experiences. Environmental art is no different. Environmental art utilizes storytelling because it is an effective tool for spreading their messages. Specifically, Ross and Rucker have used these ideas in their work to communicate their

own message around the environment. They are successful in creating a space for transformational thinking because they engage the viewer's emotions. What Ross and Rucker are able to accomplish is to get someone to possibly care about an issue that is far removed (or seems) from. Both artists have shown that using story-telling and creating an emotional experience is an effective tool in creating a space that allows for transformative thoughts.

Chapter Three

While the previous chapter introduced the reader to the content and main aims of Rucker's and Ross's works, this chapter will take a closer look at how their work introduces invisible and underrepresented narratives in their art. Each of their artistic processes starts by examining overlooked stories about nature that go unnoticed in everyday life. Telling these stories through their art provides a space to educate audiences about environmental issues that are not seen in everyday life and to contemplate about the information provided. Rucker and Ross take up various environmental problems in their work from clean drinking water, climate change and provide a general awareness of nature. What both Rucker and Ross do is provide visual representation to problems that are typically overlooked and most of the time are visually uninteresting. While a coal ash pond breaking provides wonderful footage promote more regulations in the coal industry there are many other situations that do not have imagery to match. The slow destruction of a river or the decline of a mountain valley has no visual stimulus similar to the coal pond exploding or the aftermath of a hurricane. Ross and Rucker take up the challenge to engage unseen problems that face nature and create a space in which viewers can learn and think about environmental problems.

One of the themes Rucker's and Ross's work sometimes depict is the violence humans commit against nature, which can be difficult to depict. In particular, the violence against nature can take time and is the subject of Rob Nixon book *Slow Violence: The Environmentalism of the Poor*. Slow violence is a name that can be given to those events and processes that take years to do their damage and are devastating to communities. The arguments in the book focus in part on the difficulty of visually representing

environmental violence. Nixon introduces the concept of slow violence, a process of human degradation of environments over a time frame that is very extended and typically invisible to industrialized nations and their consumers. Writing about slow violence, he asks “How do we bring home-and bring emotionally to life-threats that take time to wreak their havoc, threats that never materialize in one spectacular, explosive, cinematic scene?”(Rob Nixon 2011). The concept of slow violence presents a paradox and an unusual dilemma for artists who attempt to portray a series of events that never have a climax. Artists have to find a way to create an engaging narrative that is able to pull a viewer in despite the overwhelming complexities of slow violence. The leaking of a nuclear power plant, rising cases of asthma from air pollution, and other similar events do not have visual excitement. Nixon in his writing explains why images of climate change and environmental destruction are not viewed as ‘violence’ in the current narrative. Many Americans picture of violence has been influenced by events, specifically 9/11: “efforts to make forms of slow violence more urgently visible suffered a setback in the United State in the aftermath of 9/11...The fiery spectacle of the collapsing towers was burned into the national psyche as *the* definitive image of violence, setting back by years attempts to rally public sentiment against climate change”(Rob Nixon 2011). People do not associate violence with acts towards nature, as it is not the discourse the media presents. Violence is presented as murders, terrorists, and other crimes, it is acting that humans do to one another. However, humans are never described as being violent towards nature despite that nature during natural disasters is described as violent. The ‘violent storms’ and ‘violent hurricanes/tsunamis/natural disaster” are horrible towards humans, but when a company is accused of polluting into a stream they are not described

as ‘violent’. Granted that companies will be described plenty of other ways but never as a violent perpetrator.

The idea of violence against nature is not a common shared thought in and is barrier artists must overcome. Developing empathy and a sense of urgency to solve environmental issues is difficult. Rucker and Ross through their work aim to create a more empathic view of nature through their art by creating that transformative space. As described in previous chapters, many people have few opportunities to engage with the environment firsthand, and consequently often feel removed or at a distance from nature. The lack of firsthand experience with nature has caused a lack of empathy to develop for nature and as a result, there is no emotional attachment for the problems nature faces. In recent literature Kenneth Worthy, an interdisciplinary researcher coined a term, phenomenal dissociation, which is defined as: “...lack of immediate, sensual engagement with the consequences of our everyday actions and with the human and nonhuman others that we affect with our actions.” (Worthy 2008). What phenomenal dissociation deals with is our lack of an emotional relationship some people have with nature. That lack of emotional attachment or empathy to nature has is in part that most of the time nature cannot be seen and many are far-removed from natural experiences. There is not an engagement with the consequences of daily actions and no emotional investment to what happens to nature

Slow violence and phenomenal dissociation both show one of the barriers from connecting to the environment emotionally. However, art can help to make both of the issues more understandable. One of the biggest factors that phenomenal dissociation and slow violence are based on is the lack of visibility of nature. Art brings environmental

problems that are not commonly seen in everyday life to the viewer. In chapter two I talked about a case study in Alaska and how it had on getting people to act and care about the environment. That case study is an example of trying to visualize slow violence and to build empathy for nature. The photography that was used was placing the historic photos in key places to help show how the land has changed over time because of human influence. Park rangers used photography to compare landscapes of what visitors see now versus what was there before to document the change over time(Thompson, Davis, and Mullen 2013). The study used the idea of visualizing slow violence to help people build empathy and want to act to help save a park they valued. What was important is that people told them in the survey they wanted to see solutions and discover the information on their own without it being forced upon them. The use of photography was able to emotionally engage the viewers and making them feel empathy towards the park they were visiting: "connect that place to emotional and social meaning through empowering messages about specific actions visitors can do to reduce the impact of climate change"(Thompson, Davis, and Mullen 2013). The project built a relationship with the natural world presented through the photo placed along the trail and emotionally engage the viewers. The emotional engagement of the photos in the trails is a gateway to opening how photography and art can have a role in educating people about violence against the environment.

Ross's Work

The emotional power of the photos in Alaska gives ground to look closer at Ross's work in to further examine the feelings of nature he brings to the gallery through his use of dramatic photography. Specifically, his *Hurricane* series is an example of

bringing visual dramatics to the issue of climate change through photographing the massive waves during various hurricanes. Climate change is an example of slow violence, a mostly invisible process that takes longer periods of time to show damage and releasing carbon dioxide is mostly invisible. Nixon talks about the difficulties in presenting climate change to a large audience, it is not explosive, it is not sexy, it never leads up to something that one can point to and say, “that is climate change at work”. Climate change destroys countries over periods of times and causes unimaginable destruction, but that image and message is not the headline of the ten o’clock news. Ross’s photos create an emotional narrative that is able to engage viewers to think more deeply about what the photos of the waves represent. In the most recent showings of Ross’s *Waves* series, the photos are placed in relation to another artists’ work dealing with climate change. This juxtaposition sets up a space in which one can relate the impact humans have on how climate changes super charges hurricanes. His work is able to visually show how slow violence from climate change can manifest in stronger storms and provides a new way for people to understand the dangers of climate change. With Ross presenting it through waves it sets a ground in which narrative takes the dominating role instead of statistics and other number-based facts.

Making the unseen emotionally relevant is what Ross is able to do through his large-scaled and hyper-detailed photos that create an experience of realistic nature. This emotional tie to nature can be felt through Ross’s work because the hyper-realistic experience created makes it feel as if one is standing in the valley looking up at Mount Sopris. Ross brings in rarely seen environmental landscapes into the gallery to bring the overwhelming emotions that can be felt when one is surrounded with nature: ““I want to

give people the feeling that they have when they are overpowered by the grandeur and the beauty of nature," he says. "It's the kind of thing that artists have been trying to do for hundreds and hundreds of years." (Gross 2004). Ross points at that this is not unusual for artists, but the way Ross does is different because of the details he captures in his photos. Ross takes the grandeur of nature and brings that into the gallery for the viewer to experience. Ross takes a rarely seen landscape in everyday life and presents in the gallery for viewing and the simple act of bringing it into a space in which deep thinking and emotional connection are meant to be made makes the photo of nature so much more important. Ross brings back that sublime feeling through his work and allows for the viewer to remind themselves of the beauty and power of nature. He creates a space where people can become emotionally invested in nature that they cannot get in their everyday life.

The ability to achieve the overwhelming and awe, or in other words the sublime, through nature photography is due to Ross's unique camera that produced a quality of picture unmatched by any other camera in the world. Ross's ability to capture the sublime is due to the specific camera he uses, and the color corrections are done in photoshop. Ross in 2002 collaborated with engineers from MIT to invent the highest resolution photo camera in the world, the R1. The R1 is how Ross is able to achieve the amazing details in his photos and create an overwhelming emotional experience (Wei 2015). The hyper details in each create a viewing experience that creates the sensation of viewing nature as if there a window to the environment pictured. The camera surprisingly is not digital, but film and each print are scanned to be than color corrected in photoshop. The New Yorker said "Ross's giant landscapes, you can make out the woodgrains on barn shingles

thousands of feet away and see mountain trails seven miles off. The pictures seem to be made not of pixels but of vision itself.”(Paumgarten 2006). The amount of detail produced on Ross’s photos has brought unseen natural landscapes to life in galleries in a detailed realistic way that tugs on the emotions. The details the camera is able to capture is one of the techniques that help to produce the overwhelming encompassing feelings that nature stimulates. The hyper-realistic nature of the photo turns the gallery into a series of windows into nature. The mountain series Ross created is an example of the use of R1 to create these massively detailed landscapes.

The details presented in *Mountain X* transport viewers into the valley of Mount Sopris giving space to observe a rarely seen landscape and creating a space for emotional



Figure 6 *Mountain X* source: cliforross.com

investment. The viewer gets to experience a landscape they might not have the opportunity to visit. Ross simply by photographing these locations brings the importance of that landscape to someone’s attention. *Mountain X* is an example of one of the hyper-realistic photos, the subject is Mount Sopris in Colorado which is the same mountain of *Sopris Wall I*. The details are crisp even when they are miles away from the camera, the

peak of the mountain is vibrant, and all the twists of snow paths can be seen clearly. In the left center of the photo shows details down to the panels and even further above them, you can make out smaller houses and trees lining the mountain valley. Even the clouds in the photos are detailed out to every strand and capture the immaculate and complex shadowing. The overwhelming details in the photo engulf the viewer with information transporting them the scene of nature presented to them. Ross is able to bring nature into the forefront of the viewers thought by simply making nature visible through his photos, but he is able to provide a deeper level of emotion through the techniques utilized. In all the pieces presented in this paper, Ross provokes emotions and provides a space to which one can contemplate their thoughts about nature. While Ross is not explicit in what he wants the viewer to come away with he provides he just wants each person to form an emotional connection. Ross's ability to create visually stunning and hyper-detailed work is why his work is so important, he brings the unseen side of nature to a broader audience.

Violence in Christine Rucker's Work

While Ross's work focuses on the beauty of nature other artists and theorists in the environmental discourse are more focused on the more disturbing parts of human influence on nature. Specifically, on the amount of violence that is lashed out onto different ecosystems and communities due to the fast-paced lifestyle of the 21st-century modern world. Much of the violence against the environment is unseen, actions that occur on one side of the world affect people on the opposite side. One example of this kind of violence is using fossil fuels in the United States and it affects the Marshall Islands by the way fossil fuels contribute to sea level rise. The Marshall Islands are slowly

starting to disappear because of sea level rise, make lives harder on the very small island (Sutter and CNN n.d.). CNN profile on Marshal Islands is cleverly titled “ YOU'RE MAKING THIS ISLAND DISAPPEAR”, harping on the idea that the actions of those in more prosperous countries are causing the destruction of the less fortunate. There are problems such as climate change that do not have any direct corresponding visual consequences, it's something that happens slowly, and many times affects people far away. How do you then get someone to care when the problem they are causing is invisible? One possible answer is art, finding a visual way to represent the problem and bring it to the attention of the viewer

The theme of slow violence is one that is portrayed in Rucker series *Dancing for the River* and it can be specifically seen in the photos incorporating chicken farms. Rucker not only in the series shows the problems that can have an immediate effect on the river but problems that go unseen that affect the river over time. Rucker brings attention to chicken farms and their impact the river as they go mostly unseen and many are uneducated on the effect they have on the river. The runoff from chicken farms builds up from the hundreds of farms in the Yadkin River that runoff includes manure, phosphates, nitrogen, and other pollutants. The runoff can affect biological life and the chemistry of the water causing devastating effects on the ecosystems.

Rucker captures this violence chicken farms can have in the photo *Chicken Farms* by creating a visually interesting photo while incorporating important information in the photo and caption. This reaction comes from how the series is presented, this photo stands next to beautiful portraits of dancers in the water, then there is a photo of two dancers in an unfamiliar place to many. Without context, some would not know what the

structure is, the background of the photo has a pile of stacked bowls for feeding, a fan, and other farming looking equipment. The process of raising chickens is hidden from daily view and most interaction with chicken occurs with either buying it at some type of food establishment (restaurant, fast food, grocery, etc). This photo is not immediately what one would associate to the



Figure 7 Chicken Farms source: christinerucker.com

Yadkin River, which is why it is so important. This photo brings to light how chicken farms affect the water quality and does so by placing the dancers right in the center of the abandoned chicken farm.

By placing dancers in the context of the chicken farms Rucker is able to weave a story of slow violence and create a space for contemplating the issues surrounding the pollution from the farms. The photo while not directly showing the pollutions stills shows the slow violence as the farm is abandoned but the impact of the farm will last for years to come. The dancers make the photo easier to grasp for those not familiar with concepts as the woman looks into the camera with an eerie look while the male looks down on the farm floor. Their gazes create an unsettling feeling as the dancers look beautiful, but their surroundings leave much to be desired. The radiant blue contrasts the meek and mostly monochromatic background of the farm adds to this uncomfortable photo. By placing the

dancers on the chicken farm, the photo presents a story that people can start to understand. The inclusion of the dancers helps to open a space for contemplating the problems associated with chicken farms that go unseen as the dancer's glare at the viewer through the photo. While there is not a completely right answer to the problem Rucker wanted to bring the issue to the attention of the viewers, so they could think different on how something that is invisible affects a river that everyone benefits from.

Through their work Ross and Rucker create a frame of reference for the untold stories of slow violence and provide a space for contemplation about nature. Ross and Rucker have created the silent voice of nature and have exposed the violence that has to happen over the course of history. Their work documents and weaves a complicated story of human actions and nature's response through photography. However, the most important part of their work is the emotional engagement they create, restating Ross's thoughts about art, "But art making has a higher calling than reaching for the traditional fundamentals of any medium. Art is charged with capturing and expressing emotion while giving the viewer an experience that triggers a new more vivid perception of the work."(Clarke and Thompson 2015). This is what exceptional art is able to achieve, Ross and Rucker both evoke emotional experience because they have truly mastered the art of storytelling. Their use of storytelling is what is able to make their work provide a transforaminal thinking space for their viewers. There no numbers or facts, just a story that allows for someone to think differently about their actions and to possibly be more conscious about the damage they cause unknowingly.

What's Next?

This research project has presented theories, artwork, and research focusing on how environmental art is able to provide a space to think about the environment in a more empathic way. Since the object of this investigation was to examine the role that art can potentially play in stimulating perceptions, transforming perspectives, and encouraging self-reflection among viewers of environmentally focused art, this project doesn't lead to a neat and tidy conclusion. Rather, it is a call to action and the start of an experiential and intellectual process in which the public, through art, engages in reflection on environmental problems. These 'encounters' with art also provide opportunities for the public to develop empathy to the world's environmental challenges. While Ross and Rucker have created exceptional artwork and transformative spaces, their work is only a few isolated examples. Their message of being close to nature and understanding the actions of humans affect the environment do not dominate the narrative that the media presents,

What art can do is to help create a narrative that challenges the dominant forms of discourse around nature that are mixed in their "accuracy" in delineating the Earth's environmental condition from a scientific perspective. Art Susan Moser, an expert in climate change communication, has said that there is no narrative when it comes to climate change (S. Moser 2019). In my conversations with her, she has said that it simply does not exist, as mainstream media does not make nature a part of our daily lives. Even when nature is presented in the media, it is typically introduced in the format of a debate. John Oliver even pokes fun at this fact when he talks about climate change on *Last Week*

Tonight by showing different clips of a climate change denier posed against famed scientist Bill Nye. The piece shows how both sides are given an equal playing field despite 97% of scientists forming a strong consensus about the anthropogenic nature of climate change.

The conflicting representation of climate change in mainstream media moves to how suggests an opportunity for other media to step in to help fill in the gap. Given the power of art to engage the imagination and the intellect, and its non-didactic way of challenging the viewer, art is well positioned to engage viewers in meaningful reflections on the role that people, including the viewer, play in despoiling the natural world. This thesis has show that art can be emotionally engaging and can provide a space for contemplation. However, it is hard to prove the impact art can have as there are not many methods to measure this. I cannot claim art definitely builds empathy towards nature. All that I can claim is that art provides a place for one to think differently through the transformative space art provides. Moving forward there must be a way to measure the impact of art on a viewer.

Art can have played a much larger role in communication the importance of nature, but a question that remains is how can it have more impact, and how can it provide an avenue for raising consciousness and developing empathy? More research in this subject area is needed as well. This thesis provides just the start of an intellectual process of exploring the role art has to play in communicating environmental problems and climate change. In her interview with me, Moser said that what art communicates to its viewers creates sensory and tangible experiences that help to overcome the distance from nature. She posited that art helps to frame problems in a different light and to

expand the imagination of the audience. She stressed that art has the ability to engage the viewer that traditional media does not. I also had the ability to interview Robert Cowin who is with the Union of Concern Scientist on his thoughts about communicating climate change. When I discussed the possibility of using art to help communicate climate change, he said he had never thought about that subject, but that he finds the idea fascinating. He said that “Art is powerful” and brings out something in others that other mediums cannot. He observed that many volunteers get become involved in climate change activism because a movie, photo, art or book they saw or read personally moved them. Moser and Cowin both reference the fact that art has not been used enough to do what? and has the potential to play a bigger role in what? than it currently has.

In conclusion, art is an extremely important tool for evoking empathy among individuals towards the environment. I posit that it provides a transformational space that encourages the viewer to question his or her preconceptions about nature, and in the process to start building empathy towards it. Ross and Rucker create engaging experiences through their work that help viewers to confront directly their own perceptions and misconceptions, sometimes through presenting a work that presents life-sized and hyperdetailed mountains and sometimes by placing dancers in a damaged river. Their art is intended to evoke an emotional response that breaks down existing barriers to accessing nature, and for having an immersive experience that brings them closer to nature.

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Curriculum Vitae

Education

Wake Forest University **Anticipated December 2018**
Master of Arts in Sustainability

University of Rochester **May 2016**
Bachelor of Arts in Studio Art with High Distinction and Environmental Studies with Distinction
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Environmental and Sustainability Experience

New Jersey Department of Environmental **April 2019**
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Public Art Intern

University of Rochester Dining Services **2013-2016**
Team Green Manager 2015-2016
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New Jersey Department of Environmental Protection Division of Watershed Management
Media and Design Intern **Summer 2015**

Professional Experience

Wake Forest University **July 2017-August 2018**
Graduate Hall Director

University of Rochester Admission and Financial Aid Office **2016-2017**
Humanities Fellow

ArtAwake **September 2015-April 2017**
Creative Director

Luca Buvoli Studios **January 2014-December 2014**
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Awards

2017

Graduate Student of the Month September

2016

Sigma Gamma Epsilon-Honor Society for Earth Science

Carlson Purchase Prize

2015

Alice DeSimone Award

2014

Art and Music Library Purchase Prize

Continuing Student Scholarship Recipient, University of Rochester

2012

Prince Street Art Recipient, University of Rochester

Research Experience

Master's Thesis

- Presented in 3 Minute Thesis competition on Wake Forest Campus, was chosen out 30 people to compete in 10-person final round.

Undergrad Honor's Thesis

Media and the Environment: How people understand climate change through visual representation

- Presented a poster at the UR Annual Research Expo 2016 and Next South Sustainability Conference 2018.

carry what you can and 6 inches, Who's to blame?

- Installed at SAGE AsIs gallery at the University of Rochester in April 2016