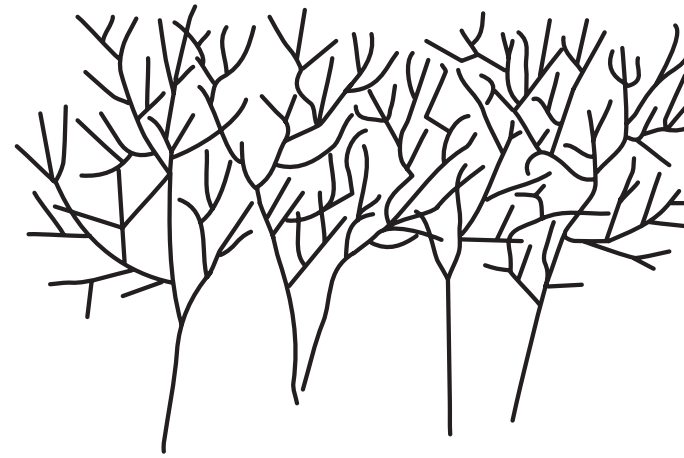


Contemporary Eco Theory in Art Education: Field Notes and Desire Paths

by Margaret K. McCullough
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A thesis presented in partial fulfillment of the requirements for the degree
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Approved by Master's Examination Committee

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EPIGRAPH

... in the midst of it there wound lazily a dark river of brown water, bordered with ancient willows, arched over with willows, blocked with fallen willows, and flecked with thousands of faded willow leaves. The air was thick with them, fluttering yellow from the branches; for there was a warm and gentle breeze blowing softly in the valley, and the reeds were rustling, and the willow boughs were creaking.

–J. R. R. Tolkien, *The Fellowship of the Ring* (Tolkien, 1954)

I dedicate this thesis to those who have accompanied me into spaces of beauty and wonder.

To my father, Robert Eugene McCullough, and my mother, Kathleen Meredith Cole,
thank you for sharing wind in high places with me.

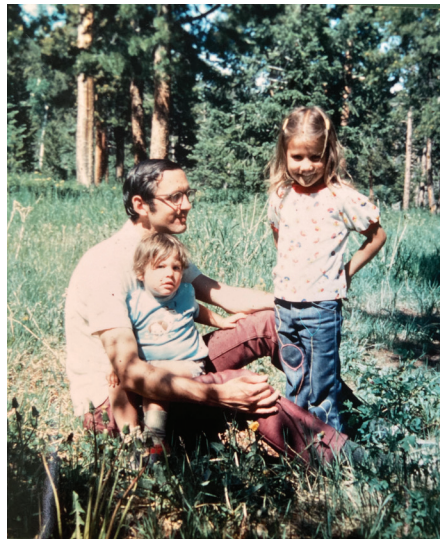
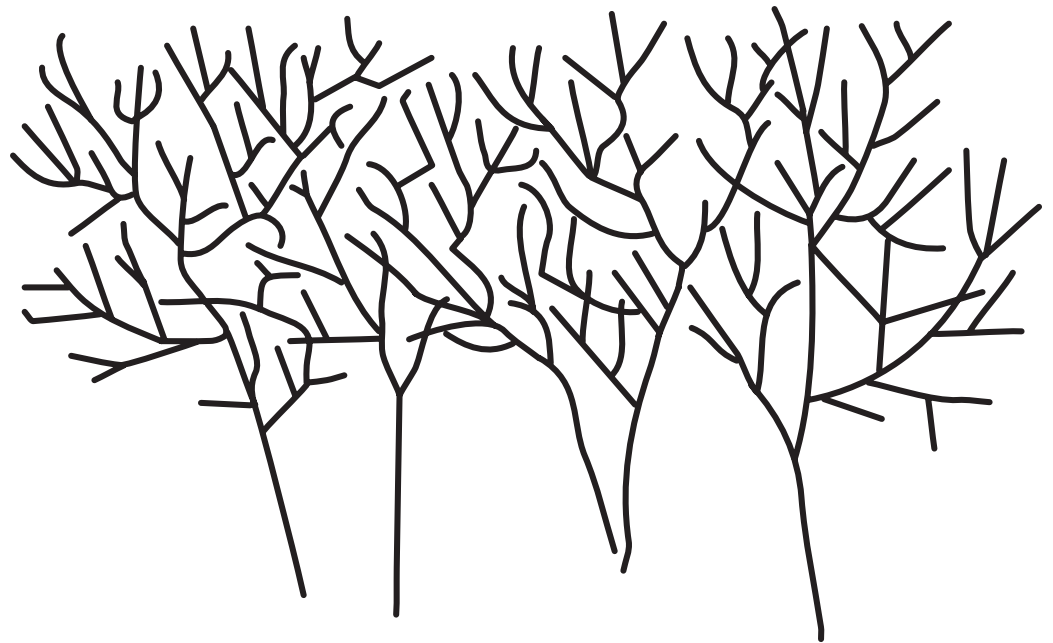


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ABSTRACT

This thesis is an investigation into patterns and overlaps of three critical elements in our world, art, nature, and education. Integral to this investigation and the contributions to humanity of these three are the accurate depiction of specific realities, upon which Science and the majority of global citizens agree, aesthetic sensibility, as well as beneficent solutions (i.e. those which do no harm.) Together we will examine the intersection of subjects, what they combine to achieve. We will consider how, taught and learned in unison, they may take on a position of greater prominence in efforts to solve real world problems. We will also consider whether, they combine to improve human and ecological wellbeing by virtue of connection, to produce positive future outcomes.

This work examines and collects common threads within existing research, pedagogy, activism, and prescribed curricula (and/or the marked absence of the same.) In the process of this research, I attempted to identify what Art + Nature education is, what is at stake, when the connections of these disciplines are lost, and how we may shape ideas into powerful tools of ingenuity. These are tools that build resilience at a crucial juncture for teachers, students, communities, and the natural world.





Margaret McCullough
Blue Grasshopper, ink on mylar
43" x 32" | 2019

1



INTRODUCTION

We awaken in daily increments to the damage we humans have done. Entire ecosystems, species and places are vanishing. Pandemic has persisted in sweeping the globe. Both are the direct result of human actions and failures to act. The generations of people we educate will look to us for courage and remedies. Perhaps the greatest gift we can offer, however, is hope. I believe changing the status quo in education, to help students grow to be truly aware and engaged problem solvers are a hopeful endeavor. Climate change sadly will be a local and global issue for an unknown number of generations to come.

The depictions and realities we have, ancient and modern, of Apocalypse, bring a sense of resignation and/or desolation. Education, through curriculum and pedagogy in Art + Nature, is a tantalizingly accessible (intellectually perfect) tool to combat hopelessness. I believe Arts + Nature (A+N) can introduce and build hope for places and people, offering flexible multilayered solutions for this time of great change.

Note: I wrote this paper during the ongoing Covid19 pandemic between fall of 2012 and the beginning of 2022. On January 24th, 2022, the United Nations submitted a report stating that educational losses due to the pandemic are now considered insurmountable and morally unacceptable (<https://news.un.org/en/story/2021/12/1107282>).

Changing The American Educational System

Renowned Yale University educator, sociologist and change-maker, Sara Lawrence-Lightfoot (2017) proposed we no longer follow the American Education System, as it currently exists. The current system focuses on documenting failure and data points, a focus which leaves people and communities already on the margins, ever more marginalized. Instead, we can easily determine to focus attention and perspective on the existing Goodness. By this I believe goodness equates to all that is beneficial: a quality or state of being kind, honest, generous, helpful, etc., the quality or state of being useful or effective (Oxford English Dictionary, 1693).

We can focus and build upon what is working toward positive change, and is efficacious within communities, schools, people, places, and cultures. Lightfoot's call for positive growth and attention, along the lines of the accessible, inspires. It also lends relevance to the topic of this thesis, in other words, building upon the wisdom of inclusivity, and offering rich experience (challenge) by teaming Art + Nature, or the practice of Eco-Art. For students the immediate benefit of changing focus is an infusion of wonder, connection, and empathy. This extends, then, from themselves to other individuals, and communities. It lends credence to the global struggle for survival, beyond that of the human reality.

Art and nature sit comfortably at a point of sympathetic convergence. For me they are outstanding features in a landscape of life-long investigation and practice. If we conceive of life as a mapped territory, a brave discovery process will lead across it from many directions. Writing and researching this thesis has been a way to intensely observe and celebrate the points of Art + Nature in the landscape of my own life. Thus, I embarked on a new path, aided by the formality of thesis. A visual artist and designer, my goal as a developing art educator is to develop and enhance a professional practice. The purpose is to collaborate with others who hope to benefit new generations of learners. Collaboration, working with others in the effort to understand and create is the greatest act of joy and compassion. It is, undoubtedly, why I now find myself absorbed in teaching and learning.

GROWING UP IN COLORADO

The Escapism of Pockets

My childhood imagination revolved around pockets, pockets I filled with common disposable discoveries: grasshoppers, sage leaves, seeds, rocks, wildflowers, feathers, and bones. I collected (and still do) for color and form. There was magic in combinations. More important was the process of collecting and preserving a sense of place. The curated items were temporary, needing to be released or emptied. But, as I picked them up, they, literally, rooted and mapped a world of familiarity, sensation, and physical solidity. They have become a habit of positive escape during many moments of upheaval and chaos. There was no need to find special places for objects of wonder,

they were just lying on pavement, in gutters, on bushes, under stones, zooming across the sky, anywhere and everywhere. I collect to create, so art and design work often take the shape of escape. I roll an idea over, to find something new or to seek its truth. There is a universality of collecting to anchor humans of any age to place, imagining and, ultimately, creating.

By absorbing myself in education and the exploration of talented others at RISD, I embarked on a new path, aided by the formality of thesis, a meta experience if there ever was. I am a visual artist and designer, now a student within the challenge of an extraordinary academic experience. My goal is to develop and enhance an educational practice. The purpose is to collaborate with others who hope to benefit new generations of learners.

Collaboration, working with others in the effort to understand and create is the greatest act of joy and compassion I have experienced in life. It is, undoubtedly, why I find myself absorbed in teaching and learning.



Desire Paths

“You cannot be anything you cannot spell.” These words lingered, after a cold day in March 1981, when I received my graded essay, entitled “What I Want to be When I Grow Up.”

Notwithstanding my lack of the ability to spell Neurosurgeon, I was invited to observe an actual surgical procedure at the elbow of a medical researcher, implanting tiny electrical impulse wires into the body of a white mouse. The experience left an indelible sense of wonder at the sheer beauty of Nature’s design. Clearly, however, I did not become that which I could not spell. Rather I gradually developed other passions.

Life and learning lead us to develop skills that feed our passion and joy. I pursued visual art and design—often through the lens of systems very much related to body function and nature. In gardening terms this is called a desire path. Desire paths are those pesky trodden shortcuts all animals seem drawn to explore. Art, design, nature, and relationship are desire paths. I hope to help students celebrate the desire paths we make together.

Welcome to the Anthropocene: Adventure + Aesthetics

I have stood at the top of many mountains, and the view is always breathtaking. An hour spent reflecting from a summit is worth every exertion required to reach it. However, the experience as a whole is 99% something else. The exploration of something else is about trust, resilience, and awareness. No-one makes the journey without help, and you must have your senses wide open. Watching my home, Colorado, I view the pressures on this beautiful place as unavoidable and alarming. Later in this paper I present an interview with artist Madeline Irving, who recounts what she terms climate trauma that affects her and influences her work.

An Intimate Sense of Urgency

I have watched Colorado struggle with global warming, and trauma seems an apt description of what most of us feel. Coloradans have witnessed the vast wilderness of rugged pine forest that seemingly goes on forever sicken and die due to



Flat Iron Formation (far left)
open space above my childhood
home in Boulder, Colorado.

Pine beetle devastation (left):
standing dead wood in
Araphoe National Forest.

infestation of pine beetle. Due to overall higher temperatures in the west the tiny beetles no long die of in winter allowing the devastation to spiral out of control. The once deep green of pine covered mountains are now copper and full of dead standing wood. The fire season in the west was, not long ago, a predictable 3-4 month stretch; due to drought and other conditions the fire season now encompass the entire calendar year. Denver, Colorado, had the worst air quality on the planet, due to smoke, pollution, and ozone, for a record number of days in Summer 2021. Public alerts warn constantly that people with heart or lung disease, older adults, and children should avoid prolonged or heavy exertion and exposure; everyone else should reduce prolonged or heavy exertion (Colorado Department of Public Health and Environment alert for the Front Range.) This compounded the intense isolation and trapped people indoors on top of the ongoing Covid19 quarantines. All these personal experiences, and those of people like Madeleine Irving, have developed in me a sense of more than urgency; the time to educate new generations of students in this and other nations, is now, if never.

Looking forward and beyond as a pandemic sweeps the world, can begin at a hopeful place, in which education and



Stone cairn Grays and Tories Peaks, 14k summit Colorado.

experiences offer healing and ideas to build communities, bodies, minds, together with hope. I go on to further examine this in two questions, targeting what Art + Nature education is, and what the common threads look like. This prompted me to also investigate certain challenges to practical implementation of teaching.

BRIEF OUTLINE OF THIS THESIS

In these 5 sections I hope to explore the correlation of Art Education and Nature: What is the relationship between them for humankind and the-greater-than-human-world.

- 1) Introduction and Literature
- 2) Eco Artist and Educator Interview with Madeline Irvine
- 3) Artists and art curriculum planning ideas
- 4) Final thoughts and an invitation for more research

METHODS

Research for this paper included interviews. These exchanges allowed me to seek the personal perspectives of artists, scientists, and educators concerned with ecology, art, cognitive development, wellbeing, and education. To build a background I collected historical information. I included empirical qualitative findings from peer-reviewed research. The hope was always to support the reoccurring themes of future research vs current in practice. To answer concerns about how an educator might go about planning curricula and build recommendations I outlined a curriculum map and collected an “at a glance” glossary of ecological terms and artist resource tool to help make the task easier. Beforehand I conducted content analysis on eco literature to determine the presence of certain words, themes, and latent content for analysis and research.

Major limitations include scope, global viewpoint(s), creativity/arts, and entrepreneurship (art to develop better businessmen and technology developers), and the expansive definitions for distinguishable terminologies of art, nature, education, truth, beauty, goodness as foundational elements (this is best left to a professional linguist.) I use rely on the Oxford English Dictionary online resource for my definitions of each.



Margaret McCullough *Assention*, oil on pannel 5' x 3'

Art is an integral part of human heritage everywhere. The question, then, becomes why only in some places is it considered as separate? It is a trend of progress that many will adapt as the world joins the bandwagon (perhaps S.T.E.A.M. teaching will lose credibility, before that happens, making room for more and better.)

A lack of formal information on current practice created a real barrier to collecting on the topic of Art + Nature education. I have sufficient questions on this topic to fill several lifetimes. In any event, much of our current approach to art education in the United States is justified by two camps. In the first Visual Art supports standardized testing subjects, science, technology, engineering, and mathematics. In the second Art Education is a separate, socially sensitive course for language learners. State Standards vary widely and there is little federal funding or oversight, which exists only by way of recommendations (Gray, 2011).

One more thing not found in this thesis: I didn't do sufficient research on policies at federal, state, or district levels to cite findings or recommendations to repair what appears to many, an educational system in dire need of accountability and a redirection toward quality and away from teaching to test scores. I would like to acknowledge an implied understanding of great disparity and systematic inequity (for all people and children in marginalized groups) which now is status quo in the United States. I will limit myself to the opportunity that observation of art education and nature offers us developmentally and subsequently for our own lifetimes.

A STORY-SO-FAR: Artmaking Educational Inquiry Art + Nature as an Old and a New Idea

Everything I have read consistently supports the fact that Arts + Nature education needs research to support its efficacy. This is needed to support the development of policies that lead to funding change in our educational system. This deficit is offset by messages of belief, from inside and outside the discipline, that experiences with Art + Nature education present great opportunities for healing. Physical, spiritual, and social. The consensus is that Art + Nature experiences also contribute cognitive connectivity, and excitement for learners, communities, and educators, themselves. In A + N qualitative thinking and discovered insight encourage addressing the fear of an uncertain future through exploring real-world solutions. This is especially needed in marginalized environments and communities, in immediate need of justice and care.

All these elements have tremendous potential, and yet, for all intents and purposes this is a cross disciplinary subject that appears entirely new in teaching models. Through investigation I may have found some of the root causes for why these subjects went “underground.”

HOW DID WE GET HERE?

I did a little scratching about the question “how did we get here?” to our current art, ecology education situation (at least in part.) Everywhere I looked there was an implied understanding, but no explicit data, of Art + Nature as a global phenomenon. This applies currently and in antiquity. It is so tightly interwoven with culture and region that it is nearly impossible for people to separate where ecology and art end, and culture begins. This also ties art and nature closely with spirituality. The latter contains scientific non-starters like superstition, magical thinking

Of all big and blurred cultures on our little planet (post-colonial) European nations have been the most successful in separating art and nature from spirituality, whereas, in many cultures it is thought to be impossible. I found a plethora of contemporary art makers in my research. Few, however, mention the universal, ancient human, spiritual/cultural (or indigenous) relationships to Art + Nature as subject. From Colonialism to the

Age of Telecommunications, we have swept away so much.

In fact, The Age of Enlightenment, put us on a path of labeling and hierarchy (“Age of Enlightenment,” 2022): For the purposes of a “universal” system of nomenclature, two works of Carl Linnaeus (1707–1778) are regarded as the starting points of modern botanical and zoological taxonomy: the global flora *Species Plantarum*, published in 1753 and the tenth edition of *Systema Naturae* in 1758 including global fauna. The reason for this is that Linnaeus introduced in these books a binary form of species names called “trivial names” for both plants and animals (*Science, Technology, Engineering, and Math, Including Computer Science | U.S. Department of Education*, 2016).

From the Age of Enlightenment passion for labeling things (things for which native cultures had existing names and histories already,) there is a splintering of knowledge into hierarchy, things are high or low on the scale of value or origin, one sees this in the contemporary split between sub-subjects in ecology and art, themselves. Again, it occurs in art, for example, painting is often deemed high, ceramics, low. This relates directly to the 1978 work creating the hard and soft categories of academic subjects, on which our current system is based.

A bridge could be built between A + N, human history, and the-larger-than-human-world. Today we see traction for such ideas as Climate Reparations and Critical Race Theory. Throughout the world more and more voices are gaining prominence, in the interests of had fought socioeconomic and environmental justice. In places where one is missing the other cannot flourish. Perhaps it boils down to the right of cultures worldwide to enjoy equal socioeconomic justice in tandem with environmental justice.

Can I coin my own offshoot without causing great offense? If so, maybe it falls under the heading of **Contemporary Eco Theory**. Meanwhile the human world struggles with trauma fatigue; those who speak for the global underdogs from an environment/cultural point of view, acknowledge that human rights are also eco rights. However, they may have a long slog. Science has already shown how and why marginalized and poor populations suffer the greatest burden of cultural collapse and ecological crises. I hope the next great voices may rise from one of these places and while I hope for the future, I know I also need to see the past.

It was interesting to track the history of separating subjects by discipline, or how Art was dislocated from foundational learning and Nature. This tale is mainly one of taxonomy and hierarchy



Mc

Margaret McCullough *Fox*, charcoal on mylar
42" x 42" | 2020

with all the colonial, class, and gender ugliness one may imagine would come with those systems. To clarify, I am currently fifty-two-years-old and experienced the grand overhaul of education of the 1980s (and beyond) in the United States as it directly affected my own education.

Notwithstanding the history that preceded it, we can definitively trace federal policy in the U.S. to Anthony Biglan. In 1978 he derived and presented a taxonomy of academic disciplines, based on responses from faculty in one public university and one private liberal arts college. Faculty (who were predominantly white and male) at these two schools were asked to vote regarding perceptions of similarity between subject areas. His taxonomy matched subjects into three areas of discipline, and, again, into hard-subjects and soft-subjects (*Disciplines and the Structure of Higher Education, Discipline Classification Systems, Discipline Differences*, 1977). Though ecology appears, the closest Biglan gets to visual art is advertising (Doberneck & Schweitzer, 2017).

Standardization and accountability seem honorable enough, but rigidity for sake of simplicity is not. It leads to our current situation of teaching to test scores which entered with the help of a republication administration policy paper called "A Nation at Risk" in 1983 which at the time was seen as a systems based overhaul of public education (based on taxonomy labeling of the 18th century)—this in turn lead us to "No Child Left Behind" and then "Science, Technology, Engineering, and Mathematics" education (STEM), and later STEAM (adding A for art, brought about by backlash,) and onward, with testing at the core. Sadly, we are still the model for public education around the world, and our influence is undeniable (as is the U.S.'s export of ideas along with funding.) When looking into teacher education up to 1983 one sees a space where teachers were, for the most part, left to teach. For the most part educators taught habits of thinking, rules of writing, mathematics, and general information such as geography (it should be acknowledged that in this flexible approach inequity and bigotry were part of the system and there were teachers who also didn't teach well.)

Thus, for the sake of expedience and accountability, soft subjects were put on the back burner, and hard (technology oriented) subjects came forward for support. What we lost with softer subjects was critical thinking, multiple points of view, complex examination of our history as human beings and study of the greater-than-human-world.

Looking at common threads, and patterns within existing research (so far) most education specialists acknowledge that visual arts is not represented and no longer appropriately supported in our scholastic and educational environments—the data alone allows the facts to speak about loss. Clearly the absence of arts from the hierarchical list on which our U.S. Department of Education's standards is linked to problems of dissociative disorders and experiences in childhood. The delegitimization of an entire field of human practice and knowledge (philosophy, exploration, research, history, expression, culture, and human identity) has had a dramatic, deleterious, effect. With language arts, nature and art as inquiry sidelined what will happen to our resilience and creativity.

The loss is not just seen in the possibilities (and opportunities) of what visual arts itself can produce, but also, in the ways that visual art feeds so many other places in scholarship and cognition. We currently have a situation which is so rigorously set in hierarchy and quantifiable numbers (i.e., testing) that teachers cannot present reading in conjunction with speech. We don't teach reading and writing as a generally related and overlapping subjects, however shortsighted it may be. Our attempt to track accountability within teaching is now even at the expense of related materials and experiences then how will address the big cross-related ideas necessary for our future success. The logic of expanding outward and not working within isolated boxes of thought (i.e., separating language, reading, writing, speech, and culture) seems radical and fundamental at one and the same time. To expand further: to look across the disciplines and relationships of math and language, all arts, and science may be our great hope.

To look farther back into history, before we lived in service to data, the discipline of Philosophy (the art of thinking) and art, nature, truth, and beauty are in a long relationship with each other—see the 200 pages of names on the wikipedia.org addressing "philosophy" and "art" on one Wikipedia page alone: https://en.wikipedia.org/wiki/Category:Philosophers_of_art. Yet we do not teach its value or history in schools. Let alone bring important and much overlooked thinkers from non-western cultures into light. This is another place of great resource for qualitative cross disciplinary teaching.

I do not suggest that we reinvent where we are in the moment, but all of this still points at Sara Lawrence Lightfoot's (Lightfoot, 2004) call to positive focus and reexamination

of a wider set of opportunities for learning. Regarding these common threads and overlaps I would also say that all the core subjects: reading, thinking, writing, mathematics, science, technology ecology, art, and mathematics all have interlinked spaces. The joy of doing complex things relate to how we habituate our motivation (identity) and deeper levels of thought.

The United Nations Children's Fund (UNICEF,) Teacher Without Borders, Art Corps, and countless other global Non-governmental Organizations offer art and nature as a part of the outreach they do (often as an element of compassionate care in the most desperate places on earth.) Yet domestically we do not formally recognize the possibilities of this mixed and care centered approach.

When I began this paper a year ago, I sincerely thought the subject of Art + Nature education would be an easy thing to research in education, the subjects seemed elemental and ancient. I was wrong. As a result, I now have more questions that I could ever hope to cover in one thesis—or a thousand. Many others will take it up. It was difficult to visit this information though the evidence of history and policy. They show a top-down lack of support for arts education and educators. Finding the refuge of the heart and the knowledge that there are vast numbers of compassionate talented people who are working despite all this background is hopeful. I found wonderfully insightful writers, artists, academics, and scientists working to support A+N education, to do no less than change the world. A new era is dawning, those who take up this work have a chance to make a lasting and positive impact on learning but also raise greater good for humanity and compassion for the-more-than-human-world upon which we all depend.

QUESTIONS: REVIEWING THE LITERATURE

For each academic paper and book collected on topics searching for common threads between nature and art education, and the teaching of eco-art, I endeavored to weigh evidence and recommendations for interrelatedness of subject. I looked at how eco-art education can work for positive-affective and sympathetic curriculum. I gave consideration to how it can add to needed research. I concluded eco-art education supports new ideas in academics and can inspire policy changes, enrich

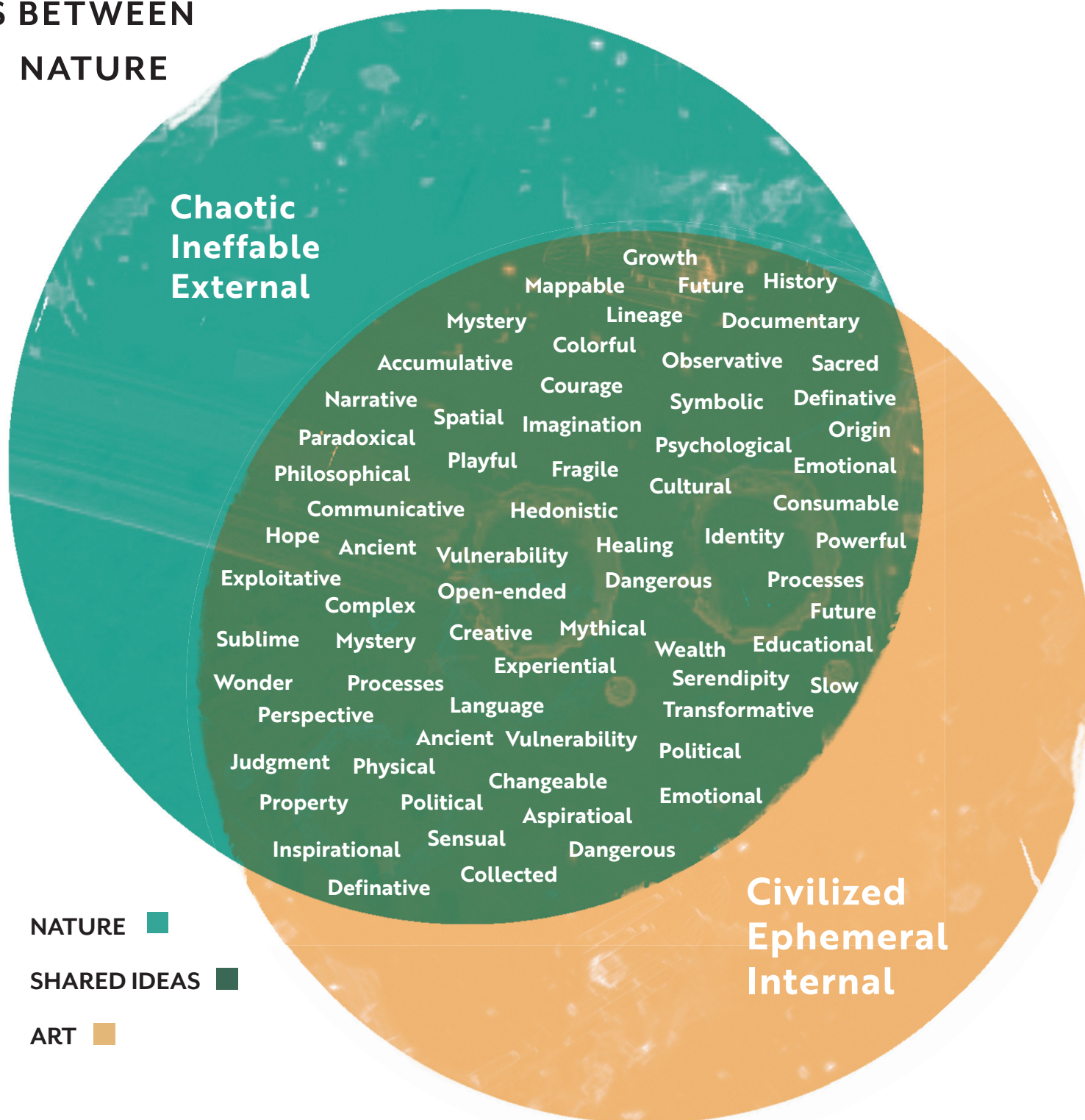
A Quote to Summarize so Much

Children see Nature differently; solitary children, who grow up amongst adults, foregather with her by a kind of like-mindedness and life within her, like the smaller animals, entirely at one with the happenings of forest and sky and in innocent, obvious harmony with them. But just because of this, there comes later for youth and maiden that lonely period filled with deep, trembling melancholy, when they feel unutterably forlorn, just at the time of their physical maturing...

Spring comes, even when they are sad, the roses bloom, and the nights are full of nightingales, even though they would like to die... (Some) unwilling to leave the Nature they have lost, go in pursuit of her and try now... to come as near to her again as they were in their childhood without knowing it... in turning to Nature, (they) put the eternal above the transitory... since they cannot persuade Nature to concern herself with them, see their task to be the understanding of Nature, so that they may take their place somewhere in her great design. And the whole of humanity comes nearer to Nature in these isolated and lonely ones. It is not the least and is, perhaps, the peculiar value of art, that it is the medium in which man and landscape, form, and world, meet and find one another.

—Rainer Maria Rilke (Rilke et al., 1929)

THE POROUS SPACE FULL OF SHARED IDEAS BETWEEN ART + NATURE



schools, engage teachers. For learners it can enhance culture within communities by reconnecting them to the greater than human world.

While reviewing all the literature, I kept the following three questions in mind:

Question 1: How does this reading show a relationship between Art Education and Nature?

Question 2: Does this work explore anyone of the common threads between art and nature that I am addressing?

The topics within question 2 are:

- Play
- Cognition or Physical Development
- Teaching & Pedagogy (Practices and Experience)
- Social/Cultural Connection
- Ecology and empathy for the-greater-than-human-world

Question 3: Does this research have any challenges, outside threads, assumptions, contexts, or ideas that stand out?

Note: I have separated research into three related sections; a proactive in-classroom look at lessons, pedagogy, and recommendations. In addition I have looked into developmental and cognitive research into eco art, play and healing time spent in nature. I found it equally important to give weight to widening views of broader effects as underlying elements in the practice of A + N.

A PATH OF ACKNOWLEDGMENT BEGINNING FROM THE ABOVE SECTION TITLED “HOW DID WE GET HERE?”

Whiteness in Art Education

This thesis is grounded in literature on Ecological and Art based education. In particular it is interested in centering the knowledge and experiences of people directly addressing how and why educators should teach eco-arts as a teamed curriculum, child cognitive development and wellbeing as a result of experiences in nature and with artmaking. ways bring emphasis to positive preexisting activities and ways to knowledge For example: play, place, choice, self and cultural identity as worthy.

The Racial Contract

Mills, C. W. (2022). *The Racial Contract* (25th Anniversary Edition). Cornell University Press. <http://www.worldcat.org/oclc/1284920273>

Philosopher and educator Charles W. Mills considers that white people are invested in whiteness and white privilege and employ an “epistemology of ignorance” that produces “the ironic outcome that whites will in general be unable to understand the world they themselves have made” (Mills, 1997, p. 18). It is in the self-interests of those who call themselves “white” to not name it, and to remain ignorant of the way it moves in and through them (Leonardo, 2009). Naming and understanding whiteness and white privilege is often quite uncomfortable for white students because it “inevitably challenges the self-identity of white people who have internalized these racial justifications” (King, 1997, p. 128). Once white ignorance is disrupted it may cause a crisis as the perceived reality of white subjects is called into question (Kumashiro, 2000). If the crisis is productive it can lead to interpellation where learners experience “a profound unraveling of the self and its refounding on a new basis” (De Lissovoy, 2010, p. 428).

The art education field has taken up issues of multiculturalism in various iterations over the years, but often the focus is on nonwhite/non-Western art and culture leaving whiteness and power unexamined (Acuff, 2015; Buffington, 2014). Over time the label “multicultural” became diluted and was used to mark approaches that often reinforced rather than challenged stereotypes (Desai, 2000). Contemporary art education scholars call for a more critical approach to multicultural education that deals with cultural complexity (Ballengee-Morris & Stuhr, 2001), critiques power (Acuff, 2015; Buffington, 2014), and reflects on the identity and position of the teacher and the learner (Desai, 2000). Art education scholars in the 1990s began to categorize individual lessons, projects, and curriculum artifacts into multicultural taxonomies. Elizabeth Manley Delacruz (1996) conducted a content analysis examining multicultural merchandise marketed to teachers by developing a four tier rubric assessing the ways teachers engaged with each artifact ranging from a focus on ethnic tourism to a concern with social issues.

Delacruz concluded that products used in multi-cultural curricula were “perpetuating stereotypical misconceptions, reinforcing monocultural myths, and miseducating students”



Robert Havell after John James Audubon (above)

The Birds of America: Plate LXII Passenger Pigeon, 1829, The Birds of America: Plate LXII colored engraving and aquatint on drypoint paper, 25 7/8 x 20 3/4 in. Collection from The National Gallery of Art (US)

Walton Ford *Passenger Pigeon* (left) color etching, aquatint, spit-bite and drypoint on paper, 44 x 31 in. Smithsonian American Art Museum, Museum purchase through the Luisita L. and Franz H. Denghausen Endowment

IDEAS: LESSONS INTO PRESENT HISTORY

The American Passenger Pigeon: a Small Creature and a Story we Could Bravely Tell

Exhibition Label

In *Visitation*, a large flock of passenger pigeons gorge themselves in a field strewn with fruit and nuts. Ford's scene recalls a written description by Audubon, "Whilst feeding, their avidity is at times so great that in attempting to swallow a large acorn or nut, they are seen gasping for a long while as if in the agonies of suffocation." The birds' ravenous feasting on the bounty of the land could symbolize the profligate exploitation of natural resources perpetuated by European settlers in the New World, which ultimately led to the extinction of the passenger pigeon. Ford also notes that the image alludes to the human tendency of blaming victims for their own destruction.

(1996, p. 85). James Banks (1999) also outlined four different categories for multicultural inclusion including the Contributions Approach that focuses on heroes and holidays, the Additive Approach where culture is discussed but leaves curriculum largely unaltered, the Transformation Approach where curriculum is changed by the inclusion of diverse perspectives, and the Social Action Approach where students take steps to solve social problems. While Delacruz's rubric assesses the ways students relate to art objects, Banks' approaches are more concerned with the relationships between objects in the overall curriculum. Amy Kraehe (2010) uses this literature on multiculturalism to conduct a content analysis comparing Texas' shifting criteria for teacher certification of candidates' understanding of race, culture, and | 14 | Journal of Cultural Research in Art Education Vol. 36(3) 2019 diversity in 1986 and 2007. Kraehe notes that while the state standards made shifts towards inclusivity, they stopped short of incorporating explicitly anti-racist or critical views of culture suggesting a "colorblind ideology" (p. 171). Fiona O'Rourke (2018) also applies a critical multicultural analysis to the English National Art Curriculum. Her curriculum analysis reveals that the history of art taught in English schools is often Euro-centric and seeks to "valorize the contributions Europeans have made to the world's artistic heritage [and] implicitly constitute the visual arts curriculum as the property of imagined "'white' populations" (p. 206). She argues that the subtle ways the curriculum affirms white supremacy "may be tacit or unintentional, but are not accidental" (p. 207). In both of these studies we see themes of maintaining racial and gendered hierarchies, preserving and promoting white norms of aesthetics and culture, and a persistent attempt to include diverse art/artists without attending to the sociocultural issues and contexts that inform their life and work. While the literature on multicultural art education proposes there are methods to disrupt these harmful processes of social reproduction, content analysis from the field suggests these approaches are not often employed. The literature presented here shows analysis of commercial products, national curriculum, and state standards revealing a shortage of literature analyzing how race and culture are taken up in district art curriculum documents. This study addresses this gap in literature by examining K-5 curriculum documents evidencing challenges to or investments in whiteness.

It is increasingly obvious that climate change is a contemporary manifestation of colonialism and arguably a natural outcome of imperial policies from previous centuries.

—Lori Lee Oates, Ph.D. (Oates, 2021)

IN THE CLASSROOM

All the resources that follow have helped to conceptualize the way in which art and nature can come together in the classroom. They describe a wide set of teaching methods and recommendations for practical participation.

Mapping Eco-Art Education

Inwood, H. (2008). Mapping Eco-Art Education. *Canadian Review of Art Education: Research and Issues*, 35, 57–73.

In this in-depth article Hilary Inwood explores the up-to-date role of art education and research in fostering ecological literacy. Ecological literacy is the ability to understand the natural systems that make life on earth possible. (Definition: to be *eco-literate* means understanding the principles of organization of ecological communities and using those principles for creating sustainable human communities). Inwood looks at education from the view of A + N as a socially relevant lens. The intersection of empowered students, teachers, administrators, and parents all working to achieve sustainable ways to live on and with our planet, seems 'camp' after so much discussion around dissociative disorder and ecological collapse. However, the approachability and feel-good elements of the practice are powerful indeed. Inwood centers her work around pedagogical ideas of eco art as a movement (beginning in the 1960s, possibly in reaction to Rachel Carson's masterwork "Silent Spring") and the very gradual "greening" of. She would like us to go beyond greening and develop literacy: "students who are literate in a particular discipline are able to successfully read, write, and speak about that discipline and can listen to and think critically as others communicate in that community" (*Wisconsin Department of Public Instruction*, 2020) as defined by U.S.

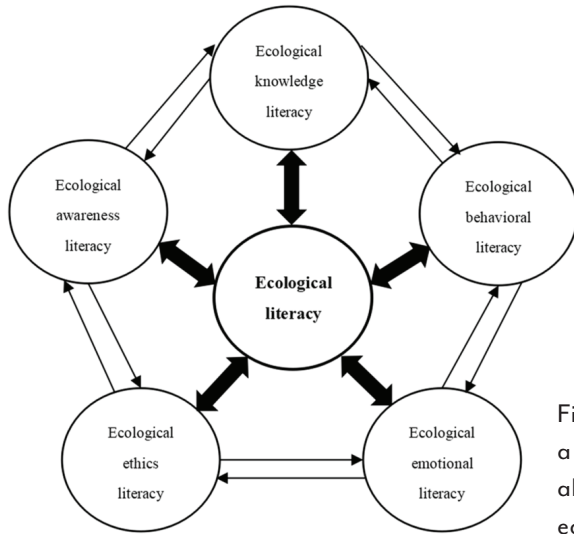


Figure 1:
a model showing
all the elements for
eco literacy.



Edward Chell, *Dandelion Taraxacum Officinale*, road Dust M4: road dust on 400 gsm acid free watercolour / drawing paper, 135 x 105 cm.

Digital image courtesy of Edward Chell / Photo: kind permission of Peter Abrahams – Lucid Plane.

Federal Common Core standards (see figure 1.) This asks us to be more than simply aware of a subject. Rather it suggests we become conversant in it. It aligns with Robin Wall Kimmerer’s book *Braiding Sweet Grass* (2015). A sense of *knowing* how to examine and embrace the world with the mind, body, emotion, and *spirit* are the four pillars of what is termed American Indigenous Knowledge. For me this also calls to mind Plato’s (399 to 387 BCE) concepts of “Form” which maintains that every object or quality in reality has a “form”: *dogs, human beings, mountains, colors, courage, love, and goodness*. These “forms” recorded as the Socratic Dialogues are the essences of objects as he describes them are that without which a thing would not be the kind of thing it is (Plato, 399 to 387 BCE).

The consensus is clear – simply knowing is not enough. There is a burgeoning number of artists creating work in Ecology. They encompass the history of the subject matter.. Inwood gives plenty of evidence in this paper of inspired global and localized approaches to teaching (and implementing) eco-art, in practice around the world and in the US—from feminism to civil rights and onward.

Along with Lucy Lippard (1997) Inwood believes “the potential for an activist art practice that raises consciousness about land, history culture, and place and is a catalyst for social change cannot be underestimated” (SFU Galleries, 2018).

This article serves as another call for art educators to define the theoretical footings of what it means to practice art or eco-art. It asks scholars and educators to “look beyond the confines of our own discipline and engage in interdisciplinary thinking.” This will allow us to rationalize and contextualize eco-art education” (Inwood, 2008, p 64). Community and connectivity, observation and self-efficacy, macro, and micro points of view, are all deeply threaded within this topic of eco-art and A + N education.

Inwood appeals for research and formal inquiry into methods and context on the part of educational researchers. She points out several projects and publications that may be made available in the next few years, as the popularity and efficacy of eco art education grows. In the Limitations Section of this paper, I also address my struggles with deficits in the body of work and academic research. Inwood points out that the mapping has only just begun. This brings with it a huge

responsibility and opportunity to powerfully shape how we go forward from here. I believe more educators with contemporary education, supported by a system that truly values the work... would be revolutionary.

The courage to forge ahead needs the support of structured community, pedagogy, and resources. To that end I found some very good examples of formal structure already in practice in Scandinavia and the United Kingdom. Countries like Finland have written policy in support of cultural and ecological literacy (this came about after a study reported that Finnish children ages 9–10 could recognize and name pop culture characters, but not the names of common plants and trees—this was particularly distressing to Fins, who generally identify their culture and language with a traditional relationship to the forests around them (Laaksoharju & Rappe, 2010). The following article is a research study outlining the teaching of lessons with the aid of contemporary land artists work as a guide. Van Boeckel (van Boeckel, 2006) parks the original idea around Immanuel Kant's ideas of "the beautiful act" as a philosophical and healing approach. The message and line of thinking leading back to Kant and beautiful acts is repeatedly taken up in contemporary literature; people like critic and author Suzi Gablik in her book titled *The Reenchantment of Art* (Gablik, 2002.) This followed in the path of 1981, *The Reenchantment of the World* by Morris Berman, wherein Berman explores the underpinnings of a new world view that can give rise to a culture capable of relating gently and self-sustainingly to the earth (Berman, 1996) Gablik (2002) looks at wonder and the human relationship to art.

Forget your Botany: Developing Children's Sensibility to Nature through Arts-based Environmental Education

van Boeckel, J. (2006). Forget your Botany: Developing Children's Sensibility to Nature through Arts-based Environmental Education. *International Journal of the Arts in Society*, Fall 2005(118). https://janvanboeckel.files.wordpress.com/2017/11/forgetyourbotany_janvanboeckel.pdf

This text is an insightful work based upon recommendations as to why we should offer a rich conversation, with adults and children at the crossroads of nature, place, identity, and art making. Van Boeckel explores the interlacing of contemporary land art examples and a sense of play, Immanuel Kant's definition of "the beautiful act," as evidence for healing the

fear and pessimism that may pervade children's lives, experiences, and education in ecology is comprehensive and hopeful. Van Boeckel points out that educators and artists must learn new approaches to knowledge. He includes in this supportive suggestions on how to accomplish research and application.

This paper also explores how environmental education for children can be enriched by drawing on contributions from the arts and artists (van Boeckel, 2006). When educators try to establish a bond between children and nature, they are faced with major challenges. Conventional environmental education, often exclusively science and data-centered, is not automatically appealing to children. More often than not it focuses on alarming news about the state of the world's ecosystems, which can lead to despair and indifference. In general, many children seem to have lost interest in nature because it is less exciting than the world of electronic illusions. Thus educators badly need innovative ways to awaken and nourish the sensibility of children to the natural world.

Early in the 1990's a group of art educators in Finland, aware of the worsening ecological crisis in society, began to ask how art could come to help in the development of a more profound form of environmental education. Aesthetic or arts-based environmental education is grounded in the belief that sensitivity to the environment can be developed by artistic activities. The paper presents three inspiring cases of this form of environmental education, taken from Norway, Sweden, and Finland.

An important function of art is estrangement or defamiliarization. It helps us to review and renew our understanding of everyday things and events which are so familiar to us that our perception of them has become routine. Furthermore, art can open us up to the presence of ambiguity. In all these meanings (and many more can be given) art has the potential to offer new ways of coming to terms with living and surviving in the Technosphere." (van Boeckel, 2006, p 16)

How to Raise a Wild Child: The Art and Science of Falling in Love with Nature

Sampson, S. D. (2015). *How to Raise a Wild Child: The Art and Science of Falling in Love with Nature* (First Mariner Books Edition 2016). Houghton Mifflin Harcourt Publishing Company. SFU Galleries. (2018, June 27). *Talk | Lucy Lippard: Undermining*. <https://www.youtube.com/watch?v=S6yB8ckN8Is>

This book by author Scott D. Sampson is full of ideas on how to get children outside to experiencing the world for cognitive and developmental wellbeing; it guides parents in the use of simple activities and goals. He uses my home state of Colorado as his place of exploration and adventure.

In my research the question of what kind of people we would like our children to become is a repeated theme. We currently have a workforce, productivity, and commercially-oriented (capital first) system. This summarized a wholistic, compassionate, answer for a contemporary hopeful world:

LEARNING IN PLACE

Let's step back for a moment and imagine some of the qualities we might want to see in a reinvented, truly student-centered learning environment. Such a setting would celebrate students' autonomy and individuality, building on strengths and interests to drive curiosity. It would foster (rather than choke) inspiration and engagement through plenty of active, real-world experiences, many of them beyond the classroom walls. Emphasis would be on character development grounded in fundamental values, like beauty, truth, and goodness

—Robert Louv (Louv, 2008).

To summarize what David Orr (Orr, 1994) professor of environmental studies at Oberlin College, states "All education is environmental education." Orr's critical point is this. Failing to include the environment as a part of schooling sends an unspoken, yet crystal clear message: the environment doesn't matter. Sampson states that "by rooting learning in the local, students come to understand how their place came to be, how it works today, and what it needs to thrive in the future." (Sampson, 2015).

It is not simply enough to offer eco art projects, we need to also offer a diverse set of learners with opportunities and recognize many cultural points of view, especially in the United States. Lisa Delpit's (2006) book *Other People's Children* gives the next and extremely important element which van Boeckel does not address, that of supporting communities of people not recognized as the mainstream.

Other People's Children: Cultural Conflict in the Classroom

Delpit, L. D. (2006). *Other People's Children: Cultural Conflict in the Classroom*. New Press: Distributed by W.W. Norton.

Lisa Delpit examines ways to address and identify where culture and standardized teaching are at odds with each other in U.S. public K-12 classrooms. She gives evidence through ethnographic experiences of teaching in diverse socioecological, historical, and cultural contexts. Her work calls us to rethink broadly, and challenge assumptions about teachers, places of learning, learners, communities, content, and context. She shows examples of how educators could create more socially sensitive and inclusive pedagogies to foster individual resilience and understanding. This can be done as social justice work, reenforcing communities where culture is marginalized or dismissed. The proposals and identifying features of this book directly address how both Art and Nature are complex culturally sensitive subjects. In a post-colonial society these subjects should be taught with a socially sensitive and choice-focused approach. In other words, teaching A+N should engage learners according to their context (experience, interest and ability to comprehend,) not defined by standardization.

Common threads appear in the gaps between those who are offered culturally relevant education vs. those who are not, but who must meet standards, regardless. The case for teaching and learning A + N correlates with the ways inclusivity and community connectivity are in place with practices of exploration, observation, and expression. If you add culture and diversity to the list of common values for A + N as learning subjects, they fit perfectly in the scope and topics—perhaps because of our human history and deep ties to all these subjects (each has a part to play in ID and society).

Art + Nature is embedded in culture which is one of the difficulties in attempting to develop one-size-fits-all methods and evidence of knowledge. The exploration of this asks everyone involved in the learning process to communicate and weigh relevance—more akin to the art of teaching thought rather than recalled information (an understandably tall order for an education system entrenched in test scores.) There are other examples of people seeking solutions in this quandary (see also Rebeca Heaton's research for more information.) I feel this book should be mandatory reading for all educators.



Margaret working in the studio wearing a COVID19 pandemic precautionary mask.



My places of graft at RISD | 2021
(top left clockwise):

Kitchen Floor in Student Housing: *Mapping the American Ink Berry*, ink on mylar 2 ml.
8' x 32"

Illustration Building Studio,
another distanced work day.

Founders Park in Providence
Plen Air Painting Class.

Blithewold Mansion and Gardens in Bristol,
RI. Margaret McCullough *The Bee Boxes*
daylight photography project.

That one-size-fits-all idea of knowledge is poignantly challenged by Robin Wall Kimmerer (Kimmerer, 2013) in *Braiding Sweetgrass*. The presentation of deeper methods for examining where culture, aesthetics, knowledge, and science makes this book a perfect example of a wisdom with which we need to reconnect.

***Braiding Sweetgrass:
Indigenous Wisdom, Scientific
Knowledge, and the Teachings of Plants***

Kimmerer, R. W. (2013). *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants* (First paperback edition). Milkweed Editions.

This approachable book offers abundant evidence of how knowledge, nature and the aesthetic live in relationship to each other and to an individual straddling multiple culture. Author Robin Wall Kimmerer talks about the complexities and overlaps between deeper spiritual, cultural, and scientific ways of knowing. I recognize the disjointed feelings of being asked to set aside cultural knowledge for evidence based scientific knowledge. At a certain point the author brings up her love of yellow goldenrod next to purple asters in a field. The colors of these flowers are offset on the color wheel. They push each other visually, giving them a sympathetic and aesthetic rightness. Kimmerer goes deeper to investigate the biological relationship between the two plants and the eco system in which they thrive. This was magical for me, as I have often wondered about symbiotic/sympathetic relationships between things in the natural environmen. To have someone say this is not fantasy or a mistake and can offer clues to deeper truths was joyful.

In the explanation of nouns and verbs in the Potawatomi language Kimmerer asks us to shift perspective, in order to recognize active presence and respectful autonomy, that everything has a spirit, and a history. Everything is subject to change and relationship, thus deserving of human respect... she asks us to try using “ki” instead of “it” in simple conversation about what would normally be an “it”: “ki” is running along the fence” rather than “it is running along the fence” instantly changes our pattern of connection and recognition: “ki” is who instead of what.

My desire to know how other disciplines are using aesthetic relationship led me to a book on nature, comparative

mathematics, and drawing with a brand-new field encompassing biology and art for further understanding of patterns (it was so complex, as to be mind boggling.) This also reminded me of all the times I’ve taught and worked with the proportions of the golden mean as compositional and aesthetic tool or seeking to find the phi moment in a linear experience (all mysteriously related to biology, pattern, mathematics, aesthetics, and pleasure). We have not begun to comprehend the possibilities in the intermingling of A + N.

Years ago I saw a series of documentaries on contemporary creativity and design featuring scientist, engineer, inventor, architect, Professor Neri Oxman. The documentaries were filmed in the Massachusetts Institute of Technology media lab, where she led the Mediated Matter Research Group. Oxman is known for art and architecture that combine design, biology, computing, and materials engineering. Her work encompasses environment and morphogenesis (morphogenesis is the biological process that causes a cell, tissue or organism to develop its shape (et al, 2022)) with shapes and properties that are determined by their context. She coined the phrase “material ecology” to define her work, placing materials in context. She is an artist I will feature in section 4 curriculum plans in this paper.

Common threads ran though this book in its use of visual storytelling, connections to community and place, the seeking of self-identity, how contemporary culture can limit us and solutions to complex ecological questions. I could easily create lesson plans around each chapter of this book.

Together with the urgent need for research there is an equal outcry for exploration across disciplinary subjects such sciences and arts. The intent is to offer new, successful, academic and professional results (this is only the beginning of researching this complex relationship much like the examples of ecological and aesthetic relationship. In fact Kimmerer has completed a workbook as a companion to her book, *Braiding Sweetgrass*, which could offer many cross-disciplinary ideas from which to teach A + N. I feel compelled to note that cultural challenges arise, as the United Sates still struggles with valuing indigenous ways of thinking and accrued wisdom.

Artists have always been at work making in ecological spaces; however, since the early 1960s people like Agnes Denes. She pioneered ecological art by combining it with Feminism. In doing so she helped to bring ideas into the mainstream. Also worthy of note in this area is Nils-Udo (et al., 2021) who works

with what he finds preexisting in nature, allowing us to experience decay as part of the beauty of art making and process. Both artists are international, although tied to the love of place.

Art in Nature and Schools: Nils-Udo

Song, Y. I. K. (2010). Art in Nature and Schools: Nils-Udo. *The Journal of Aesthetic Education*, 44(3), 96–108. <https://doi.org/10.1353/jae.2010.0003>

In *Art in Nature and Schools* academic and researcher Young Imm Kang Song uses the lens of one artist, Nils-Udo, as a powerful example of how contemporary artists and art making on the topic of environment could be successfully and thoughtfully rolled into the classroom setting—Nils-Udo has had a long and very public career of making work directed by what he finds preexisting in nature. This author lists with clarity several primary goals that can be addressed in the teaching of A + N by way of Nils-Udo’s process and contemporary eco thinking

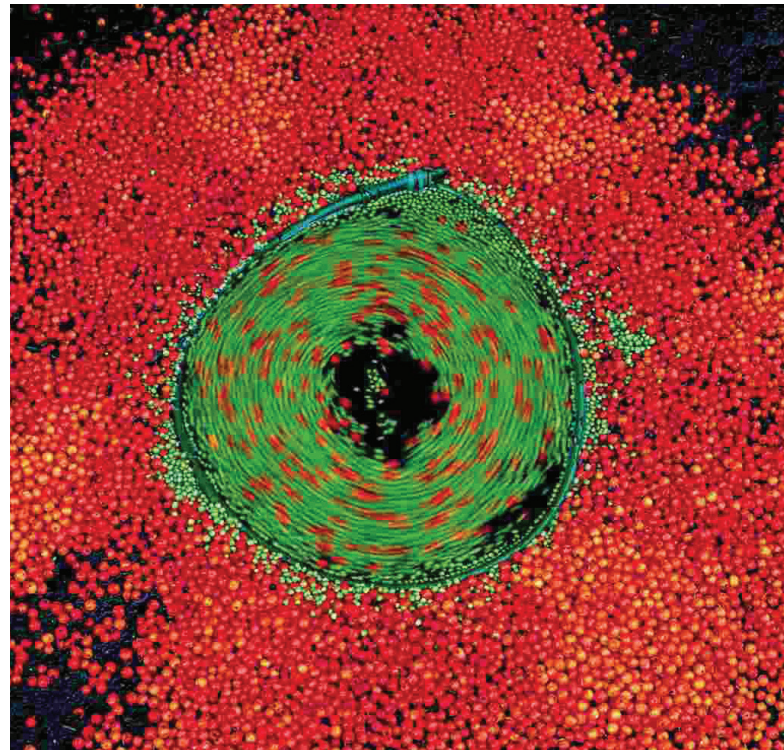
Introduction to the subjects of artists, makers, and students making physical A + N projects themselves (becoming contemporary art makers and thinkers as personal involvement)

- A + N education is evidenced through research and greater depth, offering excitement to learners.
- This encourages contemplative and insightful thought, as well as facing fear(s) associated with change
- It also fosters senses of self, other, community and environments, particularly as regards issues of justice

Creating lessons and artwork that accomplishes the above goals is admirable. The results and research gathered in tracking projects like this one are supported by the contents of Jan van Boeckel’s (van Boeckel, 2013) dissertation, which is a logical progressive guide to the what, why, and how of succeeding to teach eco art.

In chapter 3 van Boeckel lays out a jumping off point for educators by offering Five Practices of Integrating Artmaking in Environmental Education (page 114).

1. Earth Education: getting the job done.
2. Botanical excursion: learning about plants and seeds.



Nils-Udo (above top) *Earth, Water, Willow Withy*: blades of grass, rowan berries, and privet berries | 1999

Nils-Udo (above) *The Nest*: earth, rocks, birches, and grass | 1978



Artwork by Kindergarten (above) and 8th-Grade Class (below) pupils from M vig School, Kristiansand, Norway 2005. Results of a Nils-Udo inspired lessons plan.

3. Flow learning: creating a bridge to get reacquainted with nature.
4. "Palaver p grenesiska": utterances in the language of trees.
5. Art-based perceptual ecology: a way of knowing the language of place.

At the Heart of Art and Earth: An Exploration of Practices in Arts-based Environmental Education.

van Boeckel, J. (2013). *At the Heart of Art and Earth: An Exploration of Practices in Arts-based Environmental Education*. Aalto University.

Today's technological world has left our relationship with the rest of nature severely diminished. Digital culture is full of hyperreal experiences and physical disconnection from "the real" of the natural world. Academic and author Jan van Boeckel hopes we find ways to mend the rift, and in this doctoral dissertation he researches arts-based environmental education (AEE) and its meaningful role. In AEE, art making is a way of potentially gaining new understandings about connection and the natural environment.

For methods of research van Boeckel used interpretative phenomenological analysis paired with autoethnography while facilitating three different AEE activities, at several times and at diverse locations. Van Boeckel quotes Rilke et al. to reinforce these ideas... "On basis of observations, memories, written notes, audio-visual recordings and interviews with participants, teachers and informed outsiders, I interpreted the experiences both of participants and myself." (Rilke et al., 1929) The activities aimed to bring about a shift in focus. Participants were encouraged to approach natural phenomena in an indirect way. In taking a less direct approach this process aspired to increase students' awareness of self in place. The research questions that the author poses in this study are:

- What is distinctive in the process of the AEE activities?
- Which specific competencies can be identified for a facilitator of AEE activities?
- Does participating in the AEE activities enhance the ability

of participants to have a direct experience or feelings connected to the natural world?

In this study, van Boeckel identifies estrangement (a sense of not knowing outlined in several other places of my own research) as a catalyst for learning. In undergoing moments of doubt, participants think and work their way across a problem, they take risks, fail, and reframe. As a result of this process, they build resilience and creative cognitive muscles. Artmaking has particularly favorable conditions for this sort of challenge, and invariably offers defamiliarizing effects which take participants away from merely acting according to instruction and into independent thinking and self-identity. The experience of joy in challenging process appears repeatedly in my investigations of Art and Nature. I appreciated that van Boeckel also points out that educators offering this type of learning walk a fine line between controlled instruction and non-interference.

The findings of this research dissertation of AEE activities first and foremost offer a way into art making and connection to nature, there is also an increased awareness of their physical presence and place within the natural world. Van Boeckel tells us that his research “can be seen as a contribution to efforts of envisaging innovative forms of sustainable education that challenge the way we have distanced ourselves from the more-than-human world” (van Boeckel, 2013).

A DEVELOPMENTAL AND COGNITIVE ANGEL

All the resources that follow have helped to see the ways that art and nature can work together to help support and heal individuals and discuss our fundamental need for experiences with the larger world.

Dr Peter Gray on Play as *Preparation for Learning and Life*

Gray, P. (2013b, Spring). *Play as Preparation for Learning and Life* [MP3].

Strong. <http://0-search.ebscohost.com.librarycat.risd.edu/login>.

<http://0-search.ebscohost.com.librarycat.risd.edu/login.aspx?direct=true&db=aph&AN=89444147&site=eds-live&scope=site>

Experiential deprivation, avoidant, and behavioral disorders are increasing issue for our society, any given day you can find

instances of social emotional fatigue and dissociative behavior both large and small events. The reactions are not surprising we are grappling with technology limited lives, global pandemic, complex and sustained instability, and ecological collapse—to name a few. There are people trying to remind us of the heredity of hope, connectivity, abundance, and wisdom, Dr. Peter Gray embodies these messages and has spent his career looking at behavior and the role of play in human development. In his work Nature is often the stage for this wonder filled “work”(Gray, 2013). Art and artmaking are an activities which can enrich and embedded in play: spontaneity, self-direction, choice, discovery, and communication for human beings (perhaps an evolutionary result of expressing experience in Nature(Gray, interview). This foundational relationship and link to habits and experiences of resilience need more research and will refolding into our societies as a building block for survival and wellbeing. Children play with no provocation or instruction needed if offered opportunity, in many we as adults and educators must simply get out of the way(Gray, 2017). A greater understanding intertwining similarities of Play, Nature, and Art education could radically change the role of educators, and value both.

Play has common threads remarkably related and woven into A + N. These three form a set of semi-pairable spaces of experience, activity, habit, ideas, and wellbeing which encompass and relate to our evolution as a species. Each can also be parsed out for independent qualities and experience examination (Gray, 2017).

How can we evaluate a set of developmental experiences that may not show their true effects until much later in life. How do we quantify joy, friendships, freedom, failure? Are the qualities of Play, Nature + Art are elusive and individual? They are so fundamental to our species as to be too large and fast-evolving to simply measure. This may explain why we focus our attention on objective academic disciplines—it takes awareness and sensitivity to direct subjective, subtle activities. (Many in our world dismiss these activities as wasted time; on the surface they seem inefficient with no easy data to collect.) The level of difficulty inherent should not be the thing that deprives children (and all of us) of the wisdom in Play, A + N—it could instead be elevated to harness what so obviously within our grasp.

The need for real childhood play is increasable obvious, it hits at the center of humanity’s wellbeing and future, the spaces



The Fiddleheads School classroom: An improvised curtain works for musical and theatrical performances and playing; the logs are used for story time.

that form the magic setting for the developmental skills and freedom to play are found in nature. Dr. Peter Gray repeatedly points to experience deficit and one of the leading health (mental and social) issues of our time. Richard Louv goes on to suggest that nature (play and exploration) can help heal the trust that is sorely broken with children as they grow and experience a world fractured by climate collapse (Louv, 2008).

Last Child in the Woods: Saving our Children from Nature-deficit Disorder

Louv, R. (2008). *Last Child in the Woods: Saving our Children from Nature-deficit Disorder* (Updated and expanded). Algonquin Books of Chapel Hill.

This book discusses the ways we have come to understand the relatively new phenomenon of sedentary and indoor childhood. Citing the before 1970 children spent far less unstructured time outdoors.

Alone, parents cannot heal the broken bond. But each guardian, parent, or other family member can lead the way at home, and within the institutions to which they belong. Educators, city planners, youth nature-program leaders, environmentalists—all these people will determine the direction of the third frontier and guide it either toward the end of natural experience, or toward its rebirth in new forms. Parents can encourage institutions to change but cannot wait for them.

—Robert Louv (Louv, 2008)

The most inspiring advice addressed ways to build bonds, trust, and wonder, together with personal rites of passage and initiation. As Robert Pyle says “places of initiation, where the borders between ourselves and other creatures break down, where the earth gets under our nails and a sense of place gets under our skin,” (Pyle & Louv, 2011) Art has a dualistic function in culture and behaves similarly in the human psyche, and our history. It allows us to create worlds of interpretation.

In the interests of simplicity and openness to experience, journaling is something a family can do together, and it offers reason and focus for being in nature. For example, nature journaling need not involve special equipment: paper, pencils, and a sharpener will do. Making field notes will serve as a personal record of experiences, allowing the creator to relive memories by opening a page (Louv, 2008). It can become an entry point to nurturing self and nature as natural landscapes, or at least gardens, are proven therapeutic and restorative places. An ancient idea that has filtered down through the ages and now holds contemporary proof efficacy. These ideas of wellbeing (goodness) and additionally holistic approaches to healing of body and mind are echoed in *Ecotherapy: Theory, Research and Practice*. Many of these practices of biophilia and observational awareness have far reaching positive effects for anyone leaning them. (Louv, 2008)

Recent studies describe tantalizing evidence linking time spent outdoors to health benefits beyond healthy weight and better immune systems specific to the experience of nature. In Norway and Sweden, studies of preschool children show specific gains from playing and creating in natural settings. The studies compared preschool children who spent every day on typically flat playgrounds to children who had the same amount of time

among the trees, rocks, and uneven ground of natural play areas. Over a year's time, the children who had natural areas tested better for motor fitness, especially in balance and agility. Studies in the U.S. have indicated higher test scores based on time in green space. All of this points to the same solution: we need more Nature.

At this point we are a nation and a world in need far more trauma-informed skills, as we deal with the complex relationship we have to places and communities in our current moment of Covid19 chaos. Children have been isolated from each other at various intervals, locked down, or quarantined. For many the experience of remote learning occurs whenever and wherever they can access the Internet. We do not yet live in a digitally connected or accessible world. This leaves millions, if not the majority, of children with little educational or other experience at all—outside of those they happen to find at home. Art and Eco therapies could offer the relief and cognitive development children and families desperately need as we move into year 2 of shutdowns. Sensory Emotional Learning (SEO) programs need to be greatly expanded to assist in reconnection to social skills and offer compassionate support for grief and instability.

Ecotherapy: Theory, Research and Practice

Jordan, M., & Hinds, J. (Eds.). (2016). *Ecotherapy: Theory, Research and Practice*. Macmillan Education, Palgrave.

Ecotherapy along with Art-therapy and Play-therapy, are versatile ways of offering cognitive behavioral therapy (CBT) skills and support of people (children, specifically) who struggle with the focus and physical inactivity of traditional CBT talk-only therapy. The enriching activities in these approaches allow children to develop a quicker level of trust and comfort, positive muscle memory, exploration of self-identity, benefits of mindful self-regulation and biofeedback (Jordan & Hinds, 2016). The positive qualities of these added therapies seem to suggest benefits far beyond the treatment of trauma (PTSD). Beyond the targeted age group for this type of therapeutic skills approach, U. S. classrooms have a high number of children struggling through unaddressed trauma on multiple levels (look no farther than COVID19.) We see a wide range of learning differences, behavior, and environment-based challenges, such as ADHD and the instability of lives affected by poverty. These

would also benefit from mindfulness practices and connectivity to self and others delivered by Eco-therapy. This addition to teaching could also go a long way in addressing communication, lack of resilience, isolation, and needed de-stigmatization of emotional and developmental differences in k-12 classrooms, provided skills are taught broadly. I would say that adding Art education into the mix would formalize the observational, reflective, and choice-driven skills needed to support cultural acceptance as well.

There is repeated mention of "wellness", resilience, and a need for healing in much of my research (not just for ourselves but echoed in the environment, as are empathy and compassion for ourselves, each other, for Nature. Of equal importance to address how to manage fear and its tendency to grow into avoidance and fatigue, All are recognized parts the teaching\ learning process. However they seem to be ever present in A + N, as we create from the unknown. By observation and reflection, we learn empathy (resilience, joy) and relationship to other. The use of nature, reflection, and cognitive behavioral therapy to bring acceptance and skills for trauma healing to children is related to play therapy (which is often used with very young children needing support). We live in a society in which trauma and the resulting need to address its ongoing effects on cognitive and biological development and mental health are increasing.

The stigma of mental illness, disorders (such as trauma,) leaning differences (such as ADHD) linger in our culture. The Americans with Disabilities Act requires we offer students an equal opportunity and assistance to allow for it. We live in a world where there is increasing need in classrooms made incrementally more difficult by tight resources. I would never suggest that the art room become a therapy treatment program (though it often already is,) as art and nature experience should be allowed their place without therapeutic benefits. However if it justified waves of change in the way we offer Eco-Art and positive experiences, it seems worth a try to enrich the offerings.

We know that CBT works and seamlessly pairs with tools of play and discovery to effectively offer skills to a wide set of need, emotional and behavioral. We need more research to know exactly how to customize this for classroom use and the empirical research that is repeatedly called for in everything I have researched. Dr. Rebecca Heaton a very concise diagram of control responses to study cognition and art learning. By using

a focused approach, we could get the data we need as a true body scientific knowledge.

Cognition in Art Education

Heaton, R. (2021). Cognition in Art Education. *British Educational Research Journal*, 47(5), 1323–1339. <https://doi.org/10.1002/berj.3728>

For this paper and research for *British Educational Research Journal* Dr. Rebecca Heaton uses her position as artist, teacher, and researcher to investigate why the study of cognition in art education is so sparse. She offers a framework to conceptualize what we define as cognition in art education in the hope that narrowing the focus may limit the over broad definition of what we mean by cognition. The argument seems to get in the way of doing needed research to support the expansion and enrichment of Art education. Cognition is a knowledge-acquiring process, also seen in the experience of nature. These include learning, risk-taking, making, and reflecting (Heaton, 2021). These acts directly allow cognition and connection to form.

Curation and collection, decision making and meaning, are all required to fully engage with creativity and cognition; both nature and art ask us to form position in this way. From her research analysis Heaton saw applications of cognition surface in four categories centralizing on cognition's potential to facilitate: 1) clarification and transformation, 2) undersetting and connection, 3) documentation and application, 4) construction and experience of, and in, art education in nature. (Heaton, 2021)

Much more work is needed to show the efficacy of the framework Dr. Heaton has proposed in this doctoral thesis to measure cognition in art. This work may be taken up by those outside the art education world but as those with the greatest benefit and stake it would seem critical to do so from within the discipline as educators \ makers.

From the mapping of data to the making of better map makers, the link between the above information and what is at stake for art and eco education The Geography of childhood by Gary Nabhan asks questions about how we get where we need to go literally and figuratively from the data to the woods. His work very closely links to Louv's *The Last Child in the Woods* and Dr. Peter Gray's lifelong research around childhood cognition and play.

The Geography of Childhood: Why Children Need Wild Places

Nabhan, G. P., & Trimble, S. (1994). *The Geography of Childhood: Why Children Need Wild Places*. Beacon Press.

Author Gary Nabhan, like me, experienced a childhood in the West. Experiencing landscape “overwhelmed by biology, lightly vegetated landscape commands attention, and weather is intense (Nabhan & Trimble, 1994, p. 19).” He speculates that this open space gave him an edge in mental map making. Current research indicates that map making genes are strung along our DNA, increasing our ability to integrate and organize experiences and geographic space. Such mental mapping skills clearly gave our hunter gatherer ancestors and advantage (Nabhan & Trimble, 1994). We have data that shows deficits in brain activity around loss of these experiences and skills. The reliance on technology is shaping ability to understand and map spaces.

In researching human development of such cognitive map skills, a University of Pittsburgh team of psychologists emphasizes that children and adults begin their descriptions of environments with landmarks. Recognizing landmarks comes, on average, with the full development of the brain, after about four years of age. It's interesting to note that recognizing printed maps as representations of places can happen as early as three years old, thereafter slowly developing fine symbolic and spatial skills (just as Jean Piaget, dominant theorist of child development, predicted)

It is not difficult to connect mental map making, recognition of symbols (semiotics,) memory, and narrative (and I would argue imagination and play.) Maps are conceptual places embedded in self-identity, stories telling, and the very cultures we build. The people who make the maps get to tell the story; this is a massive issue for post colonial civilization to address. Experiences of place and nature feed skills of connection (to community and self, to history and into the future). In our world most children exclusively experience outdoors from the safety of playgrounds or yards dominated by, recreational equipment, manmade toys, structured games, grass as mono-horticulture, and more likely concrete or asphalt. Mapping, stories, creativity, and play is limited in these spaces. Most of these places are devoid of vegetation or lose parts with which to form and imagine nests, shelters, wands, or other playthings. Nabhan asks if we can

counter the loss of wildness and free play with a solution that will allow children to explore and experience beyond the pavement, ways to map, experience textures, living things, and earth that allows them to tunnel, climb, make their own games, and or even fall. Eco-art centered education could play a big part of the reintroduction of wildness and play confidence in childhood.

Eco-art fits well with mapping and reflective, exploration of imagination, identity, equanimity, and culture. If offered the opportunity children will engage in narrative and art making as an element of play, nature is the perfect location for these adventures.

Turning to face the fears we have about nature and its loss needs courage. We can better engage in a sensitive, informed, dialogue, if we arm ourselves with what we can recognize as the fallout. Naming the loss is important to finding the remedy. Children are extremely aware of what is happening in the world (even if they don't know the specifics, they know they are inheriting a disaster) and they also see the easy ways to escape the discomfort as they watch adults in the world deny what's right in front of them (video games, smart phones, etc.) To bring awareness and ease the pain we must concentrate on the sensations that arrive in this complex relationship.

Arts Based Environmental Education and the Ecological Crisis: Between Opening the Senses and Coping with Psychic Numbing

van Boeckel, J. (2009). Arts-based Environmental Education and the Ecological Crisis: Between Opening the Senses and Coping with Psychic Numbing. *Metamorphoses in Children's Literature and Culture*. <http://www.naturearteducation.org/Articles/Arts-based%20Environmental%20Education%20and%20the%20Eco-Crisis.pdf>

In this research paper Jan van Boeckel makes a compelling argument for offering focused and open arts education to children as an expressive and creative way to face the difficult things happening in ecological and crisis and its cognitive fallout. He points to the awareness children have of the situation and an increase in the culture of avoidance. It is this whereby we exhibit habits of "Psychic Numbing"—a form of cognitive dissociation which includes symptoms of memory loss, out-of-body experiences (feeling as though one is watching a movie of oneself.) Psychic Numbing also plays a role in mental health problems, such as depression, anxiety and thoughts of suicide, a sense of detachment from one's emotions, lack of empathy and/or lack of self-identity.

We know art reaches human sensory perceptual, emotional, cognitive, symbolic, the creative levels of human experience. By teaching Art alongside Nature, we can slow down the "seeing and looking" process, engaging the senses deeply, to harness the unique catalyst of making. Previously discussed are the unique qualities of A+N to inspire and to connect learners to the rhythms of life outside the human realm (experiences of what Peter /London called "radical amazement".) The approach of A + N provides support beyond the reach of other therapeutic approaches. It offers humanity opportunities to access real world solutions and proactive approaches to some of the challenges ahead for the environment. It can help provide a positive reciprocal effect, as opposed to numbing ourselves or denying reality. Van Boeckel uses the examples of pedagogy developed by Finish educator Mari-Helga Mantere and Arts-based Environmental Education (AEE) which offers teachers a variety of exercises and a concrete planning guide ((PDF) *Arts-Based Environmental Education and the Ecological Crisis: Between Opening the Senses and Coping with Psychic Numbing*, n.d.; van Boeckel, 2013).

WIDENING OUR VIEW

The following resources have helped to conceptualize the way in which art and nature can come together in the community. They describe ways that artists, communities, and educational methods are all coming together to foster wellbeing, social activism, and ecological change.

Playing for Time: Making Art as if the World Mattered

Neil, L. (2015). *Playing for Time: Making Art as if the World Mattered* (1st ed). Oberon Books Ltd.

Lucy Niel's book supports artists in what might be called midwifing community or community restoration (in no less than a social activist project guide). I desperately want to engage in the types of community projects that are offered in this book. It acts as witness, planning tool, bringer of new life, and social activism documentation. I found it an inspirational melding of Nature conservation and Art making as community ID and restorative justice (a spiritual ownership of space), Artists and art making in a broader sense, act as community guides for social action, with



Excerpt From: Lucy Neal (2015). "Playing for Time." *Anne-Marie Culhane Corn Mask II*, Maris Widgeon wheat straw and willow frame. The Corn Masks project started in 2005 with a new series of masks being created in 2013/14. This project emerged from ongoing work with and research into food growing systems, seasonality and agricultural rituals. Each mask is created in a different situation and context. Once made, the masks are displayed, used in public performance and then put back in the Earth. *Corn Dollies* was performed outside the Houses of Parliament in the UK to coincide with a mass lobby of parliament around an early day motion on the coexistence of genetically modified and conventionally grown crops. *Photo by Jo Salter*

nature and place at the core. I love that his book specifically executes and plans for community and environmental wellbeing. It honors our human need to be experiential, educational, and reflective.

"In the dramaturgy of life, I needed to know how to act. I wanted a coherent narrative that faced the global challenges I was waking up to, whilst inspiring me to live as creatively as I could. I wanted, as playwright turned politician Václav Havel once said to 'live in truth', acting as if a more positive future were viable, whilst navigating my way through an unsustainable present. I needed a new story to live by.

I decided to stand by the story of art – the enchanter of life and alchemist of change. Not an art I was a spectator at or consumed, but an art in which I was a participating collaborator, a storyteller and celebrant. An art that inspired the reinvention and reimagining of our world at a time of great uncertainty; an art that could be practiced by everyone, inseparable from daily life. An art that had a pivotal role in remodeling society, reinventing its values in a transition to an ecological and less anthropocentric age.

This book sprang from a desire to understand the role our imaginations and creative skills play in reimagining a world in which life on Earth is cherished and sustained. (Neil, 2015)"

Readers find common themes throughout this book. They include acts of restoration and reclamation for places in nature, empathy as way to achieve justice, experience as a component of empowerment, and communication as a binder. The artists in this book are using talent and intellectual knowledge honed by process and making, to elevate other people's lives through collaborative relationship. This speaks to the resilience we find in nature and place, as well as the deep need for human beings to create meaning.

The enormous challenge in the US is this. At the mere mention of anti-capitalism all conversation shuts down, as does opportunity. Americans still live in an environment that cringes at ideas of socialism. We rename ideas as 'progressive', however, the more we try for acceptable labels the farther away we seem to get from negotiating solutions.. We have struggled over decades to find a balance between much-needed social projects and corporate profitability. We often encounter Ecology parked next to The Green Economy. In many ways this book is a detailed guide to integrated, sustainable, community project planning with artists as the fulcrum for building connection.

The richness of involved art communities, and ideas in Lucy Neil's book lead me to think about how we offer recommendations for lesson planning. As individual educators it's still up to teacher to each of us to meet students where they are. Teachers are called upon to work with the system as it is. Researching different recipes and

perspectives for creating inspiring and connected curriculum, engaging in needed research, and meeting the broad expectations of districts and administrators need wonderful materials and examples to build on. The Elegant Task approach fits into many of the contemporary needs for this task.

An Action Research Study on Using Elegant Tasks for Primary One Pupils to Learn Art

Poh-Lim, F. (2014). An Action Research Study on Using Elegant Tasks for Primary One Pupils to Learn Art. *SAGE Open*, 4. <https://doi.org/10.1177/2158244014549743>

Shir Pei Poh-Lim expands on an approach to applying pedagogical planning in the form of a pre-existing model: According to Sandra Kay, an “Elegant Task” is an “open-ended-problem” approach that serves to elicit “creative thoughts” and “elegant” or “aesthetically meaningful” solutions from pupils. This approach to teaching fits well with the goal of inclusive, culturally sensitive, teaching methods (supporting a gender-open, post-colonial, equanimity-based method with a history of practice.) The “elegant task” example fits closely the solution for which Lisa Delpit calls in section 3 of her book “Other People’s Children” *Looking to the Future and Accommodating Diversity*, “I do believe the best solutions will arise from the acceptance that alternative worldviews exist, that there are valid alternative means to any end, as well as alternative ends in themselves” (Delpit, 2006) (Heaton, 2021)

Creative thinkers seek elegance in their work. An aesthetic sensibility accompanies creative work from the original vision or motivation to its use in identifying what many creators describe as an ‘elegant solution’. Examples of this characteristic can be identified in most, if not all, academic fields (Shir Pei Poh-Lim, 2014). If one defines creative thought in developmental terms, as “a process in which the individual finds, defines, or discovers an idea or problem not predetermined by the situation or task” (Kay 1989, p.65), then the importance of guidance by an aesthetic sensibility becomes more visible. When we look for them, we can see elegant solutions all around us. Elegant Problems are a building block for solutions and address the what, not the how, of creative teaching and learning.

The intellectual and intuitive process of examining an elegant problem and solution includes skills and outside the box fit for arts, design, and sciences (and in explorations of ecology and nature itself). As individuals, artists have highly developed personal habits

of aesthetics that guide more than their work (Kay 1989). In a study of problem solving and problem-finding behaviors, a task that was considered a “very open-ended problem” by others, professional artists described as a constrained problem to solve. Although other participants were amazed (or overwhelmed) by the choices within the task, the majority of the professional artists commented on the predetermined nature of the game. Resilience in the face of obstacles is a necessary skill during times of great change, such as the one we are currently experiencing. One participant said, “this isn’t fair to artists because their own aesthetics gets in the way.” Yet, despite their perceived limitations of the problem posed, all the artists sought their own elegant solutions. Artists define (not always with words) the problems or issues they consider important and appreciate the solutions of others doing similar investigations. This may be a major impetus for the forming of ‘schools of art’ (e.g., Bauhaus, Hudson River School). Traditionally, artists and scientists have collaborated to address issues regarding theories of perception (Kubovy 1982).

An example of an elegant solution is recognizable without precisely knowing the problem posed. For a visual example, imagine the entrance door of an elementary school adorned with a sculpture in the shape of a Greek temple pediment that displays a collaged mosaic form that reads, “What do you need to Know?” Taking one of the major guiding questions built into all curriculum design (What do you need to know?) and transposing it to a visual greeting that exclaims the building’s purpose is elegant. This piece also provides the visual paradox of converting the spontaneous or quick medium of collage into the ancient, meticulous art form of mosaic (new and old, past, and present). Thanks to the Chicago Public Art Group, Lowell Elementary students, staff, and administration are enjoying the visual and intellectual stimulation of this elegant solution (Gude 2007). One does not need to know the precise problem posed to this community arts group to appreciate the solution’s architectural elegance.

The common threads in this work to other research are evidenced by the conditions of skillful observation: of Problem and Solution (call and answer). The discovery process and elegance of deeper knowledge (of observation and knowing in all possible forms including spiritually and culturally). In choosing a formal approach such as elegant task as a teaching tool some guess work can be set aside and adjustments made for the people and places where learning takes place. Aesthetics: Art + Nature is intertwined experientially.



“I just love learning from the work. Just leaving it open and learning. It’s part of my being in the world. I try to be patient with myself and my artwork. There were years where it felt like it didn’t connect to the larger art world. But I just had to keep working. And I think you never know what’s coming unless you keep working, unless you keep that thread going. I think developing as a person is a part of what goes into the work. Who you are and what you think about and what’s important to you is what comes out in the work whether you want it to or not.”

— Madeline Irvine

Yellow Holdfast, sea salt crystals
and ink on paper, 44” x 30”

2

ARTIST, EDUCATOR, AND ACTIVIST: AN INTERVIEW WITH MADELINE IRVINE

I requested an interview with artist Madeline Irvine, after being introduced to her by Nancy Friese, through the Drawing Objectives Class offered in the TLAD program, in which I have been studying for my MA with a focus on Art + Design + Nature. I am intrigued by the layers of practice Madeline employs in her life. She is many things artist, ecology advocate, researcher, documenter, teacher and RISD alum.

As an artist, teacher, and designer I have been seeking a way forward which honors all these things in my life. The wisdom, patience, and talent with which Madeline approaches the complexities of her visual arts career form a goldmine of empathetic and analytical experiences. I would like to develop a lesson plan around Madeline's work. I would also love to offer the world a taste of real bagels and real tomatoes...

In what follows I have included some highlights from my interview, etc. After the transcription, I address the connections I see between Irvine's work and ideas about Art + Nature education.



Mangrove Sea salt crystals on archival paper, 7'6" x 18"



Nature follows its own set of rules. While we may try to keep things the way we like it, change is fundamental. Whether we want it or not, whether we choose to see it or not, here it comes. What we do now will determine how that change unfolds, what the natural world of the future will become, and what species survive.

– Madeline Irvine

Floating Light Sculptures (this page)



MKM: On your end, do you see a reluctance for younger generations to pursue connectivity to life (nature) and to the places they live? As I learn about teaching Art this seems like it should always be a feedback loop, a sort of critical POV for self, as well as other (not only for professional career but intimately and personally.) Can you speculate about why younger generations are avoiding Nature and Art or ways we could possibly shift that for them (and in doing so also for ourselves?)

MI: It started for me this way:

So here we are, we're from the northeast, we're living in Austin TX. Years ago, we couldn't find a good bagel and we love bagels, so we sought out places where bagels were being sold. But the bagels didn't taste anything like what bagels taste like (or used to taste like) and my husband made a very good point. He said, "these people have no idea what a bagel is supposed to taste like." This is the crux of it all, people go to the grocery store and buy tomatoes and they have no friggin' idea what tomatoes are supposed to taste like anymore.

I feel like there are experiences being lost, and younger generations just don't know what they are missing. I also think they have been raised by parents "as best friends" and this does some very good things too. It helps educate the parents, and I think that that has been key for climate change to involve people you might not expect to become engaged. We really only respond to the presented world I feel the younger generation is less interested in previous generations, thinking, "Awe you had that experience, and now we can form things and have our own personal approach... now it's our turn."

I think there's a lack of interest in art in Austin; it's a very young town, people over 60 account for 14% of the population, so most of the population is young and interested in socialization.

MKM: That's probably true in Denver as well. Denver continues to boom, a lot like Austin. Also, like Austin, the climate is delicate. There were water issues 100 years ago that just increase as the city keeps sprawling over the entire Front Range megalopolis. Its desirable but just going to be a place under more and more pressure environmentally. I love that you equate bodily nutrition to being spiritually fed; for example, if you don't ever have enough Vitamin-D then you don't know what a Vitamin-D might do for you.

MI: You know what? I think it's normal for our culture. As baby boomers, we were engaged to fight for civil rights. We were at the beginning of feminism. All of these things we worked for. We brought them to a different place. Then other things that came started commanding the attention.

I'm glad you mentioned the millennials, 'cause I don't think in terms of generations, but that's part of things. Also, we live so long now. And that little territory of land care and ownership gets more and more and narrower as the generations go by.

I think that's unfortunate and I'm very worried about what used to be a sense of the "common good." I think a lot of us are expendable. I think with what's coming up with climate change -the seriousness of it that people don't grasp- we're going to cascade in about twenty to thirty years. If we don't get the politics right, we're toast.

MKM: I think the whole world feels deep pressure to get the politics of ecology right

MI: Human rights depend on this.

MKM: Human rights are tied to place and what we choose to do with those places in a visceral, qualitative, and quantitative way, is critical. In my paper.

I've been trying to address the greater good as an artist/teacher, looking at the balance between those things, where do you see that that discussion going?

MI: I think part of it is strangely a side effect of feminism, and a change in our culture. Women went out to work. Now we are culture in which you (a family) must have both incomes. (We didn't have to before — one income was enough.) Now we need two, and there's no time for homemaking.

As human beings we really deal with what's present, not what's in the future. I'm afraid that that's how we exist. Also, looking at climate change, there's so much for which corporate individuals (individuals within corporations) are to blame.

MKM: I'm interested in your history as a maker, in what your involvement with nature has been? I know you're inspired by Rachel Carson's work... and by water.

MI: That's a lifelong question, I was born in Manhattan, but and my mother would take us parks, Central Park for

example. When you went to Central Park you were in forests and fields or portions of forests and fields. Manhattan is also surrounded by two rivers, so you had the flow of the river and the ocean at the bottom Manhattan. When I was five my parents bought a country house thirty miles north of New York City in Croton-on-Hudson (a village in Westchester County, NY.)

We lived 3 miles out of town, in the last house on a dirt road, where everybody owned two acres or more, we bordered on the property of a man who had 26 acres, because he liked birds. So, at the foot of our property, down the hill was a stone fence, then, there was Joe Campanella's twenty-six acres. (As a result,) thirty miles from New York City, we never saw another light at night.

When I was eight my parents said, "Oh we're not going back to Manhattan. You're going to go to school here now. I used to play after school every day with a boy in the neighborhood, we played outside in those fields and woods through about junior high school we shared that love of nature that we got from being in it all the time

MKM: My paper will include ideas about "Play" from Doctor Peter Gray and others. A focus on experience deprivation, lack of free time (no boredom), and an absence of group play. There are many looking closely at what play does for human animals. I guess this relates to the second part of my question. What called you to make physical art?

MI: I lived in cities disconnected from nature and it was it was a real physical loss for me (for example, when Summer was over, and we went back to NYC.)

I remember when I lived in Philadelphia, the only place I could go for nature was a nearby cemetery. There was grass, and it had vertical space, but no horizontal space. But it gave me some consolation.

When I went to the Maryland Institute College of Art, they taught "Nature" through landscape painting. It was very hard to go and do your homework as a young female in Baltimore's parks. The parks wouldn't be safe, you know, in Baltimore; a lot of weird things were happening. And so (as a result,) I became disconnected from nature again.

I was very slow painter. I recall painting in my living room, I was doing this still life, but, by November, the light had changed. I had to wait until February for the earth to

rotate and give me back the same light again. In that way I felt connected to nature through the rotation of the earth and the relationship to the sun. That stuck with me for a long time.

Really, I think that it was working in my journals at RISD that put me back in touch with water as a medium, one night in my studio sky was really strange. It was around 10:00 o'clock at night and had this magenta glow. I went outside, and the clouds were moving beautifully. I lay down on the ground and watched the clouds move and I thought "Oh my God, I'm looking at my painting journals! I connected with that moment. In the 80s I started teaching at School 33 Arts Center, ages 6 through 9. It was great, just a marvelous experience!

I remember a kid, who signed up one Fall — he was five. One day I showed slides—he had never seen a slide before—and he said, "How did you do that!?" Next, I stuck my hand in to point at something and he was like, "Oh my God, what did you do! He reminded me of what we all take so much for granted, that sense of wonder, of the unbelievable things that make up our world. I love the working of chance.

MKM: I've read articles on teaching serendipity in art. I could see another connection for me in nature because I feel nature is full of serendipity. You just don't know it's there, until you're out in it, or watching for it.

MI: Absolutely. I think that's part of why I want it (serendipity) in my work; it's something I've had to learn to embrace and enjoy. We all like change, if it's for the good, if it gives us a sense of progress. But there's a lot of change that we don't want. It happens anyway! What do we do with that?

MKM: I love how that connects to how children learn acceptance and courage through nature and play together. Courage comes through relationship, as we make mistakes and negotiate with each other.

MI: Yes, yes! It is something we help each other do, maybe something that's missing is that sense of "I've got you," and the courage you get from your comrades, rather than from your (smart)phone.

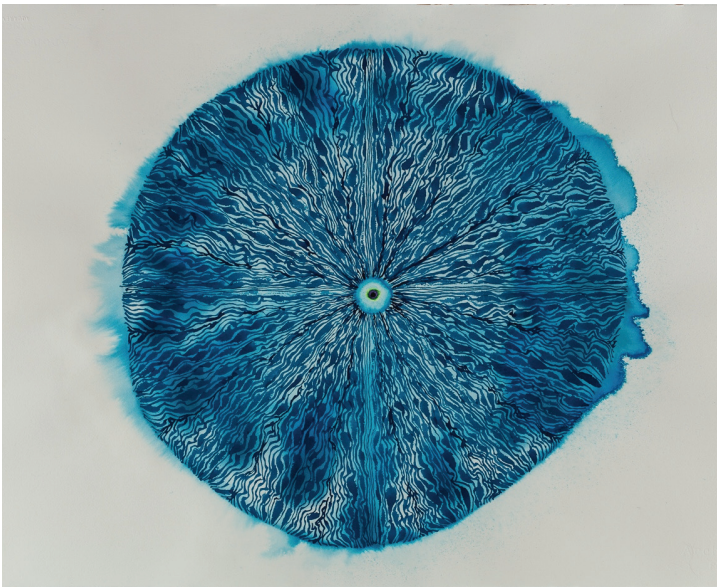
Artist Biography

Madeline is a multidisciplinary multimedia visual artist whose work focuses on the natural world. Working intuitively, she uses a range of materials to develop bodies of work. She harnesses ongoing process in collected artist journals (since her time at RISD 1992) to capture a non-linear, spontaneous senses of self and world. The presence of water and time in her work have become primary element evident, not only in media, but also, as topics for work in which curiosity and awareness of ecological issues are also present.

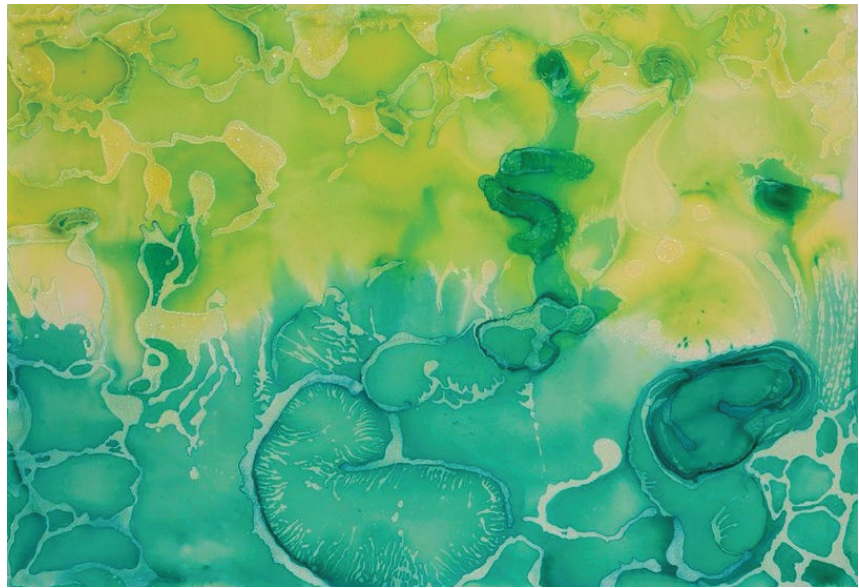
Experimentation and chance in Madeline's work is tenderly treated and collected. She invites the

physical world in as coconspirator/partner in the making. I love the ways in which this approach is, at one and the same time, art, play, and research oriented. Evident, as well, is the complexity of her approach. It necessitates that she show up as perpetual student, advocate, and teacher. She describes needing to work with outcomes, this responsiveness reminds me of the ways we all deal with outcomes of climate collapse (even for those engaged in the choice to ignore climate collapse, there is ongoing expenditure of effort.)

Madeline currently works and lives in Austin, Texas. She has a BFA in painting from the Maryland Institute, College of Art, and an MFA in Painting/Printmaking from the Rhode Island School of Design. She has worked in art-related fields,



Exosphere, Atmosphere, sea salt crystals, and ink on watercolor paper, 22" x 30"



Coastal Water—Warm and Cool, sea salt crystals and inks on German Etch paper, 30" x 43 1/2"



Noon | Pandemic Photography Examples

as the Director of School 33 Art Center in Baltimore, Curator at the Montserrat School of Art. She is a writer and Visual Arts Critic for the Austin American-Statesman. In addition, Madeleine is a Professor of Studio Art and Art History at Austin Community College. She is the founder of *Look See Productions*, which organizes ongoing thematic exhibitions.

Artist's Statement by Madeline Irvine

The natural world is the core of my work, as subject and as process. I research the ocean and climate change; it is the knowledge of how these elements work that fuels my imagery. I draw with a hyper-saturated sea salt solution, in which, when the water evaporates, sea salt crystals grow in seemingly random patterns. Yet these patterns are not so random.

I prefer working outside on many of these works. The elements affect the color and forms of crystal growth: temperature, humidity, wind, clouds, the shadow of the driveway fence, and the angle of the sun. At 95 degrees at Noon, the crystals dry one way. At 95 degrees at 4:00 pm, the crystals dry another way. While the formation of the patterns may not be so random, responding as they do to the atmosphere they were made in, the sea salt crystals are chance configurations that represent moments in time.

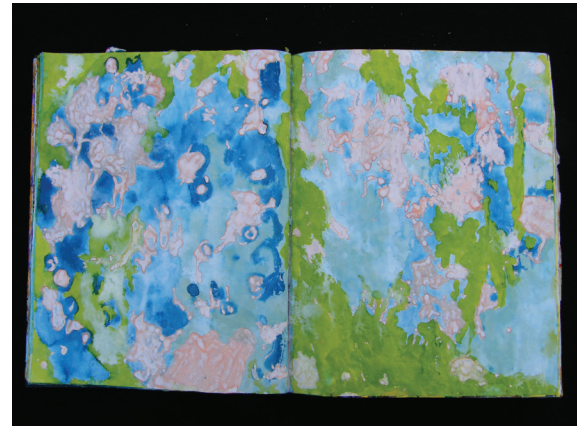
My Takeaway from the interview was that not only is it lovely to have simpatico moments with professional makers but that we need to hear process and see documentation of natural forces in practice to formulate ideas about teaching a subject like eco art—ultimately there is no substitute for witnessing a mind full of ideas in action. Madeline is authentically herself and generously shares her journey with others. She has clearly had to come to grips with her relationship to and in the natural environment. Her determined solution seeking give hope to a world where artists, educators, community, nature, and students can find resilience together.

madelineirvine.com

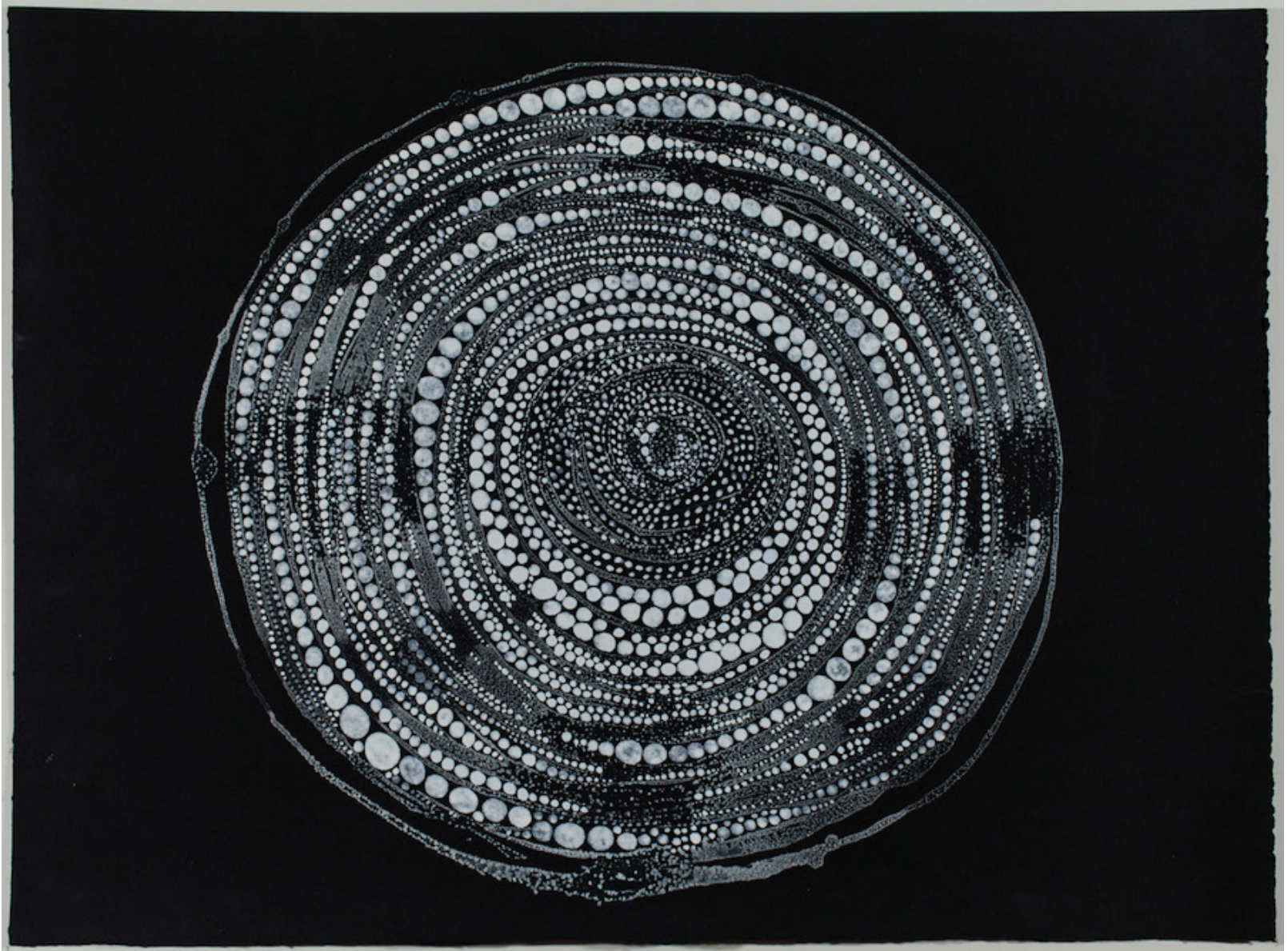
<https://www.instagram.com/madelineirvine/>

<https://www.facebook.com/MadelineIrvine33>

*Depth of the Sea, Height
of the Atmosphere, inks
on watercolor paper
30" x 22"*



RISD Journal Examples



Pearls, sea salt crystals and ink on paper, 22" x 30"

Salt Paintings and Drawings
(2013-current),

The ecological history of the oceans is the source of my current work. I draw with a hyper-saturated salt solution, and work with the salt crystals that grow as the water evaporates.

3



The poem, the song, the picture, is only water drawn from the well of the people, and it should be given back to them in a cup of beauty so that they may drink - and in drinking understand themselves.

—Federico Garcia Lorca, *Deep Song* (1922)

Importancia histórica y artística del primitivo canto Andaluz llamado 'Cante Jondo' 1922

AN ART + NATURE CURRICULUM MAPPING JOURNEY

When considering a practical approach to designing a curriculum map to fulfill several balanced requirements, mainly of open-ended, qualitative, and experience oriented, I thought it best to spell out some of the moving parts as a guide from which to mix and match. To do this I needed to look at what terminology artists and ecologists are using to define the topic. The vast majority of contemporary artists address issues of ecology, it is the pressing topic of the day intermingling with post colonialism among many other social issues. Most artists do not however explicitly say what forms this work is intended to address those which do were added to my resource list which created a good jumping off point. Please note that many artists making work in eco art have several topics they address, and so they appear repeatedly.

The Elegant Tase approach for qualitative solution making influenced this curriculum design. I personally find that asking a question is a wonderful place to begin in visual art or science, it allows for individual points of view, theories, and skin in the game—so to speak. Thankfully Sandra Kay gives us a criteria list that make a task more elegant. In research how I might go about using this approach it was necessary for me to keep in mind research and standards grading needs. Luckily the criteria of an elegant task reminded me of grading rubrics I have designed in the past at RISD to track student knowledge and skills. Fitting the two together offers both feedback to learners and information to track progress of planning and success for research. To that end I also found six specific questions that teachers might ask in collecting information for action research.

Note: for real world public classroom use I also connected National Core Visual Arts Standards to each lesson in the map. Please see the following useful lists from which I chose information.

What is the Elegant Task approach?

Sandra Kay (Kay, 2016) educator and academic, defines an Elegant Task as **an open-ended-problem to solution approach that serves to elicit “creative thoughts”** and “elegant” or “aesthetically meaningful” solutions from teachers and learners.

Criteria of an Elegant Task

- It is worth solving
- It is relevant to students’ experiences
- It is context sensitive, or issues-based
- It is open-ended
- It is studio based, and engages and fascinates students with materials and media
- It encourages students to explore characteristics of materials and media
- It encourages students to create extraordinary forms
- Students are guided to match materials to ideas
- Choices are provided while Constraints are put in place
- Provide Choices & Constraints
- Forced choice can also be called “enabling constraints”
- Choices and constraints can take the following:
 - Media or art form
 - Materials
 - Format or product
 - Scale and dimension
 - Design or visual concepts
 - Style of representation
 - Ways of thinking
 - Ideas and themes
 - Working independently or in a group

Elegant Task projects are best accompanied by an existential or provocative question (of the sort we sometimes use when doing thesis research). An existential question moves the learner to a deeper level and often engages thoughtful aesthetic choices and careful crafting of solutions – because answers of this type of question are from personal positions of investigation, more contextual and therefore are more meaningful.

- Involves a ‘What if’ proposition, requiring the student to decide.

- Focus the direction of ideation (enabling constraint)
- Self-referential (the question is a personal one for which the student is the only one who knows the right answer)

Note: while not all lessons must involve an elegant art task, performance tasks can be designed around more elegant ideas.

The Bonus of doing Action Research Teamed with Elegant Task Art Education

Knowing that art and eco art education specifically needs greater data and support I suggest an action research approach may be best suited. To that end Sandra Kay suggests that for each lesson a data collection (grading rubric and or research collection) cycle will support educators to track Q&A related to specific Elegant Task questions. To create a sense of inclusion students can and should be directly involved and empowered in research. This would, over time, serve educators in building and pinpointing moments of success and identify places for adjustment. The effort would not only facilitate contextual connections to the process of making complex enriched contemporary artwork for teachers and students. It would also go a long way to providing academic (eco) art educator research communities (such as TLAD at RISD) with qualitative and quantitative data to positively effect deeper research, policy, and financial support for programing (a win, win, win, approach with wellbeing and support for all.)

Six proposed questions educators can use for compiling data for research:

- Do students like the Elegant Tasks approach to learning art and doing artwork? If yes/no, why?
- Give an example of an Elegant Task art lesson which the pupils liked and disliked. Which parts of the lessons do they like/dislike and why do they like/dislike those parts?
- What can the pupils learn about artmaking when Elegant Tasks are deployed?
- Apart from artmaking, what else can the pupils learn during the Elegant Task Art lessons?



Margaret McCullough *Blue Hare*, ink on mylar, 36" x 24" | 2018

- Can the Elegant Task approach help pupils produce quality artworks? If yes, in what ways? If no, why?
- What else can be done to enhance the art lessons? Can the lessons be improved based on pupils' feedback at the end of each Elegant Task?

In planning my curriculum map the following collected information formed a resource tool

A GLOSSARY OF ECOLOGY TERMS

With Examples of Artists Creating Bodies of Work on Correspond Terms

Conservation refers to management schemes designed to utilize the planet's resources to derive the most benefit for the most people while minimizing environmental damage and resource depletion.

Eco Artists working with Conservation

Chu Yun • Fernando Garcia-Dory • Nicole Fournier • Amy Franceschini • Tuegreenfort • Helen and Newton Fiarrison • Yun-Feiji • Hehe • Jae Rhim Lee • Michael Mandiberg • Viet Ngo • Marjetica Potrc • Pedro Reyes • Tomas Saraceno • Bonnie Ora Sherk • Simon Starling • Tavares Strachan • Tissue Culture & Art Project • Lily Yeh

Preservation is a policy that respects the inherent ability of ecosystems to determine their own optimal compositions and evolution. Preservation strategies often safeguard threatened territories by isolating them from human interference.

Eco Artists working with Preservation

Brandon Ballengee • Fernando Garcia-Dory • Nicole Fournier • Yun-Feiji • Maya Lin • Frans Krajcberg • Alan Sonfist • Marina Żurkow

Social Ecology studies the relationships between human populations and their environments, noting the environmental impacts of social structures such as hierarchical political systems, competitive economic systems, and consumerism, as well as ethnic and gender inequalities, international law, and urban planning. Social ecologists attempt to reformulate such social structures to reverse humanity's negative impact on the environment.

Eco Artists working with Social Ecology

Beehive Design Collective • Joseph Beuys • Mel Chin • Fernando Garcia-Dory • Bright Ugochukwu Eke • Tuegreenfort • Hans Haacke • Hehe • Helen and Newton Harrison • Friedenscrich Hundertwasser • Natalie Jeremijenko • Marjetica Potrc • Pedro Reyes • Bonnie Ora Sherk • Superflex • Reverend Billy Talen • Mierle Laderman Ukeles • Lily Yeh • Marina Żurkow

Deep Ecology is a philosophy that envisions the universe as unified and interconnected and recognizes the inherent worth of all forms of life without regard for human utility and pleasure. As such, deep ecologists pursue metaphysical unification of humans and their surroundings, as opposed to relying on reason, to guide environmental reform.

Eco Artists working with Deep Ecology

Joseph Beuys • Nicole Fournier • Gelitin • Terike Haapoja • Allan Kaprow • Frans Krajcberg • Maya Lin • Mario Merz • Redearth • Carolee Schneemann

Restoration Ecology recreates a function or a condition that existed in an ecosystem prior to the onset of a disturbance.

Eco Artists working with Restoration Ecology

Brandon Ballengee • Herbert Bayer • Mel Chin • Hans Haacke • Helen and Newton Harrison • Natalie Jeremijenko • Viet Ngo • Marjetica Potrc • Bonnie Ora Sherk • Superflex • Lily Yeh

Urban Ecology examines the cycling of matter and the flow of energy among plant life, wildlife, and humans in urban habitats. Urban ecologists attend a broad range of city problems, including storm water runoff, smog, heat sinks, and local wildlife.

Eco Artists working with Urban Ecology

Mel Chin • Bright Ugochukwu Eke • Nicole Fournier • Hans Haacke • Helen and Newton Harrison • Hehe • Friedensreich Hundertwasser • Viet Ngo • Marjetica Potrc • Pedro Reyes • Bonnie Ora Sherk • Alan Sonfist • Mierle Laderman Ukeles

Industrial Ecology is the study of material and energy flows through industrial systems. Industrial ecologists monitor the impacts that industrial activities have on the environment, including the extraction of resources; the transformation of resources into commodities, transport, and packaging; and disposing of wastes.

Eco Artists working with Industrial Ecology

Ant Farm • Beehive Design Collective • Chu Yun • Critical Art Ensemble • Bright Ugochukwu Eke • Amy Franceschini • Hans Haacke • Helen and Newton Harrison • Hehe • Yun-Feiji • Viet Ngo • Tissue Culture & Art Project

Human Ecology investigates the effect of humans on plants, animals, other people, and nonhuman populations, and vice versa. Human ecologists strive to shape living and working spaces, food and clothing, leisure activities and forms of transportation for the betterment of the planet.

Eco Artists working with Human Ecology

Ant Farm • Joseph Beuys • Fernando Garcia-Dory • Nicole Fournier • Gelitin • Tuegreenfort • Hehe • Allan Kaprow • Jae Rhim Lee • Michael Mandiberg • Pedro Reyes • Carolee Schneemann • Bonnie Ora Sherk • Redearth • Simon Starling • Reverend Billy Talen • Mierle Laderman Ukeles • Lily Yeh • Marina Zurkow

Ecosystem Ecology studies energy and matter as it courses through locally defined ecosystems. Ecosystem ecologists consider the integrated actions of biotic and abiotic components of ecosystems and their interactions with adjacent ecosystems.

Eco Artists working with Ecosystem Ecology

Herbert Bayer • Nicole Fournier • Gelitin • Andy Gracie • Terike Haapoja • Hans Haacke • Helen and Newton Harrison • Friedensreich Hundertwasser • Natalie Jeremijenko • Yun-Feiji • Eduardo Kac • Allan Kaprow • Jae Rhim Lee • Maya Lin • Mario Merz • Viet Ngo • Bonnie Ora Sherk • Alan Sonfist • Tomas Saraceno • Gerda Steiner and Jorg Lenzlinger

Sustainable Development is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (www.un-documents.net/Ocf-02.htm). In ecosystems, sustainability involves biological systems that remain diverse and productive over time. For humans, sustainability involves long-term maintenance of social and economic systems.

Eco Artists working with Sustainable Development

Critical Art Ensemble • Fernando Garcia-Dory • Nicole Fournier • Amy Franceschini • Tuegreenfort • Hans Haacke • Helen and Newton Harrison • Friedensreich Hundertwasser • Yun-Feiji • Viet Ngo • Marjetica Potrc • Bonnie Ora Sherk • Simon Starling • Superflex • Tissue Culture & Art Project • Lily Yeh

Unit Title : Eco Art | Documentation + Elegant Tasks

by Margaret McCullough Date: February 1, 2022

Unit Concept

To challenge ourselves as artists to recognize, investigate and appreciate our surroundings, we engage with environment to uncover opportunities and experience of the world through a new point of view. Open ended art making using the conceptual ideas of navigation, systems, time, and conditionality to explore contexts of documentation and knowledge (empowerment) of the documenter.

INFO AT A GLANCE

Grades 9-12

4 Lessons

3 Assignments in Each Lesson

Notes and Accommodations

This unit of lessons can be presented as a mix of in person outdoors and remote making for virtual classroom needs. In person and static work space is recommended for completion of work. Final presentation can be in person or a website gallery

Research data collected to further refine future lessons. Student feedback and participation included as an additional and advanced layer.

Lessons Titles and References

1 Navigation : New Mappers

Navigation: the process or activity of ascertaining one's position and planning and following a route. Often based on desired outcome or destination.

2 Systems : Field Notes

System: a set of "things" working together as parts of a mechanism or an interconnecting network. Separate parts which form a greater communication as related whole.

3 Time : Immediacy

Time: a period during which an action, process, or condition exists or continues.

4 Conditions : Eco Stories

Conditions: circumstances affecting the way in which one exists, especially with regard to health, safety, or wellbeing.

Unit Title : Eco Art | Documentation + Elegant Tasks

1 Navigation : New Mappers

Lesson Concept

Navigation: the process or activity of ascertaining one's position and planning and following a route. Often based on desired outcome or destination.

Assignments

- **Elegant Task Questions:** How is the idea of mapping is used in this artwork? What information does the map impart to its viewers? Can you identify symbolism used in this work?
- After receiving a google earth map of approximately 1 square mile detailing a local "ecological" space. Working as a team investigate the place, its features old and new.
- Decide what you will enhance from your land choose mediums for creating a new map. On the provided 3' x 3' sq sheet of poster paper provided, re-imagine and display important of the features you found (these can be historical, physical and actual, or futuristic.)

NAA Standards Connections

Anchor Standard #I. Generate and conceptualize artistic ideas and work (creating)

Anchor Standard #II. Relate artistic ideas and works with societal, cultural and historical context to deepen understanding.

Anchor Standard #6. Convey meaning through the presentation of artistic work:
At the conclusion of this investigatory work you could hold a community installation showing all of the ways that nature is documented in this unit.

Artists

Maya Lin *Ebb and Flow*

Hamish Fulton *The Pilgrim and the Nomad*

Nancy Holt *Sun Tunnels*

Julie Mehretu *A Renegade Evacuation*

Artist Visual References

Maya Lin

Title of Work: *Ebb and Flow*

Video: <https://www.youtube.com/watch?v=r-gVBO4eFg>



Hamish Fulton

Title of Work: *The Pilgrim and the Nomad*

On being a walking artist:

<https://www.youtube.com/watch?v=gf46UROy64c>



Nancy Holt

Title of Work: *Sun Tunnels*

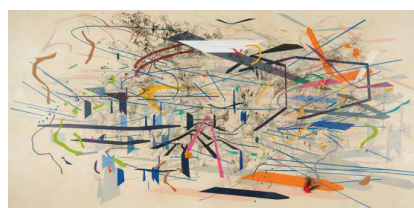
<https://www.pbs.org/video/sun-tunnels-bcmrx/>



Julie Mehretu

Title of Work: *A Renegade Evacuation*

<https://art21.org/watch/extended-play/julie-mehretu-politicized-landscapes-short/>



Unit Title : Eco Art | Documentation + Elegant Tasks

2 Systems : Field Notes

Lesson Concept

System: a set of "things" working together as parts of a mechanism or an interconnecting network. Separate parts which form a greater communication as related whole.

Assignments

- Elegant Task Questions: How are the ideas of system used in these artworks? What message comes forward using repeated elements?
- Take a nature walk or visit a museum, observe some of the systems in the place through which you walk. During your trip, select one subject from the world around you (tree, bird, pool of water, display, path etc..) In your field notes document what it is and two of its distinguishing features (for example, colors, condition, uses), and the environment in which it exists.
- Use the information collected as the foundation for a finished artwork (of your choice) that conveys one key idea about systems in your chosen subject (such as how it moves, its relationship to its surroundings, or how one thing about it can address its sustainability or usefulness.) You could also explore invention of new imaginary system.

NAA Standards Connections

Anchor Standard #1. Generate and conceptualize artistic ideas and work. (Creating)

Anchor Standard #8. Interpret intent and meaning in artistic work.

Anchor Standard #10. Synthesize and relate knowledge and personal experiences to make art.

Artists

Hans Haacke *Rhine Water Purification Plant*

Mineko Grimmer *Remembering Plato*

Robert Adams *Turning Back*

Mark Dion *Harbingers of the Fifth Season*

Artist Visual References

Hans Haacke

Title of Work: *Rhine Water Purification Plant*

<https://www.youtube.com/watch?v=r-gVBO4eFg>



Mineko Grimmer

Title of Work: *The Remembering Plato*

<https://www.youtube.com/watch?v=gf46UROy64c>



Robert Adams

Title of Work: *Turning Back*

<https://www.pbs.org/video/sun-tunnels-bcmrsz/>



Mark Dion

Title of Work: *Harbingers of the Fifth Season*

<https://art21.org/watch/extended-play/julie-mehretu-politicized-landscapes-short/>



Unit Title : Eco Art | Documentation + Elegant Tasks

3 Time : Immediacy

Lesson Concept

Time: a period during which an action, process, or condition exists or continues.

Assignments

- Elegant Task Questions: How does each work of art reflect a moment in the (greater than human) natural world. How does capturing this moment enhance our understanding of what we see?
- As a group take a walk into a pre-selected outdoor space. Spend time in observation of existing elements in nature. Using the ideas of aesthetics and found elements plan and create in two lessons a temporary earthwork
- As a group document the site using any combination of sketches, photographs, written information (field notes,) and recorded narrative descriptions. We will revisit the site periodically to experience and update the process of decay.

NAA Standards Connections

Anchor Standard #2: Organize and develop artistic ideas and work. (Creating)

Anchor Standard #7: Perceive and analyze artistic work.

Artists

Sarah Sze *Night into Day*

Nils-Udo *Water House*

Andy Goldsworthy *Taking a Wall for a Walk*

Richard Long *White Water Falls*

Artist Visual References

Sarah Sze

Title of Work: *Night into Day*

<https://gagosian.com/news/2021/05/20/sarah-sze-night-into-day-fondation-cartier-pour-l-art-contemporain-paris-video/>



Nils-Udo

Title of Work: *Water House and Nest*

<https://www.youtube.com/watch?v=5mBwoPBvVOY>

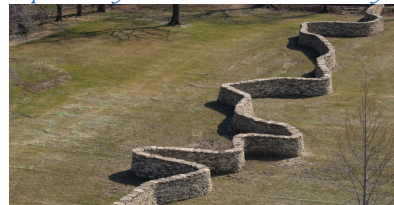


Andy Goldsworthy

Title of Work: *Taking a Wall for a Walk*

<https://www.youtube.com/watch?v=mCg-xDfSWds>

<https://www.youtube.com/watch?v=FPDH8yCnlkO>



Richard Long

Title of Work: *White Water Falls*

<https://www.studiointernational.com/index.php/richard-long-video-interview-time-and-space-arnolfini-bristol>



Unit Title : Eco Art | Documentation + Elegant Tasks

4 Conditions : Eco Stories

Lesson Concept

Conditions: circumstances affecting the way in which one exists, especially about health, safety, or wellbeing.

Assignments

- Elegant Task Questions: What conditional stories are told in each of these works of art. Do conditions play the leading role in the story? Or does humanity?
- Selecting one of the artists presented and the open-ended work they have made, chart a storyboard plan expanding the story presented (either past, present, or future...)
- For a final presentation please describe or document why you chose the addition you did. This can be done in the medium of your choice (video, written, etc.)

NAA Standards Connections

Anchor Standard #4. Select, analyze, and interpret artistic work for presentation.

Anchor Standard #8: Interpret intent and meaning in artistic work.

Artists

Joseph Buyers *7000 Oaks*

John Akomfrah *Purple*

Pierre Huyghe *After, Alife, Ahead*

Olafur Eliasson *The Weather Project*

Artist Visual References

Joseph Buyers

Title of Work: *7000 Oaks*

https://www.youtube.com/watch?v=4m4Aq7_DXrY

<https://www.youtube.com/watch?v=HE87qEUtApI>



John Akomfrah

Title of Work: *Purple*

<https://www.youtube.com/watch?v=Unnuqs-RJuw>



Pierre Huyghe

Title of Work: *After, Alife, Ahead*

<https://www.youtube.com/watch?v=eWre6dlUABo>

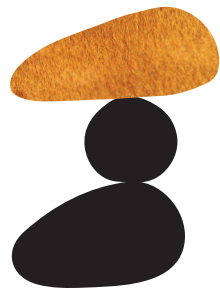


Olafur Eliasson

Title of Work: *White The Weather Project*

<https://www.youtube.com/watch?v=IsT9vEpfNq4>





4

**“Art takes nothing from the world, it is a gift and an exchange.
It leaves the world nourished”**

—Gary Snyder, poet

SUMMARY AND CONCLUSION

**As I collected information over the past year,
I often wondered at the bounty of ideas worthy of so much more research.**

Ultimately the accomplishment of my work here has been to curate a set of interrelated arguments in the cause of the large and simple truth as living beings we are in no way separate from the place we live—we have worked very hard to successfully ignore that. Humanity has mental wiring that allows us to play a game of disconnection and denial, we no longer understand that survival and wellbeing is interelement on a connection to natural systems. Our wellbeing is dependent on the condition of our environment (as is everything living and existing in it alongside us.)

If we do not change, what's at stake?

Many of the people whose ideas feature in this paper make a consistent and heartfelt plea for reintroduction of nature for wellbeing, particularly for children. If we committed to a focus, maybe starting in our needful art classrooms, to a change of positive perspective as recommended by Professor Sara Lawrence-Lightfoot we may see immediate opportunity for meaningful learning and community/place-based support and solutions—the expectation is that these offerings will have a very long-term effect on multiple levels of wellbeing and involvement for schools, educators, and society.

Those of us seeking this change understand there is risk in letting go of the test-driven system to what would need to be, at least in part, a qualitative involved model. Because art education has been marginalized (difficult to test) it seems like the perfect subject to practice this new combined positive orientation and ecology. Even more so within the ongoing failure and instability that the educational environments have suffered because of distanced learning and virtual classrooms required during the Covid19 pandemic. With the system broken and so many educators leaving the teaching field it seems like a good moment for compassionate change. If we do nothing... we risk further dissociative issues that will affect our communities as well missing opportunities for healing and understanding the-greater-than-human-world.

AFTER THE RESEARCH

In the academic world of contemporary art education, as with institutions like RISD and in the TLAD program, there is a push to add research-based teaching of art education to provide missing and much needed empirical data that would support the expansion and funding of visual art as an academic discipline throughout US Public School Systems. The issues for deliberation often center around the ways art and nature do not easily fit into the test-driven system we currently use (which has its foundation in the educational overhaul and taxonomy of academic subjects from in 1980s). Art + Nature both ask to be evaluated and demonstrated through accrued knowledge and subjective experiences (wisdom rather than facts), it takes more effort to quantify values of this type. Though I would like to point out that research on ecology and nature itself is highly quantifiable—making this teaming of disciplines even more attractive to the art and academic research community. The type of intelligence outlined in these complex actions is often drummed out by a capitalist consumer driven economy. We can't agree how to implement a change in an effective or efficient way and so the good work here falls out of favor as more obvious subjects clamor for attention. Easier to quantify subjects have been seen to create capable workforce for manufacturing, tech, sciences, and engineering. The feeling for a long time has been that we as a nation can only solve our societal issues and prove success with test and technology involved models. Art + Nature feel slow and unpredictable in comparison to multiple choice tests—regardless of joy, accessibility, ingenuity, wellbeing, efficacy, or our best logic.

There are many in art education and in academia seeking evidence and deeper understanding about how Art + Nature, its support of wellbeing, connection to cognition, equanimity for our unbalanced communities, advances in solving ever evolving global and local issues (most if not all aligned with living in a world that needs help with Anthropocene ills we must face) ... and so much more.

Embracing our common humanity and the mystery of our connections to each other and our planet have become scary politically charged ideas which allow us to act in ways that we might otherwise not. The loss of "The Common Good" and implied unity of purpose, work that benefits future generations (which we may not ourselves experience), and positive sacrifices (even in small ways) are ideas you only hear in political speeches and seem to have forgotten or no longer trusted as true. To embrace mystery is even more farfetched if we can't address our common humanity.

Robin Wall Kimmerer, mentions in her book *Braiding Sweetgrass* (2013) how beautiful golden-rod and asters appeared together. She theorized about the qualities of this beauties influence on her from the earliest moment in her life, how they inspired her to seek out the possible relationship between these plants and the environment. I recognized and loved what she shared. The natural and scientific worlds push me to make art, to examine relationships of aesthetics, form, function, systems, and the joy of discovery. Kimmerer became a botanist, teacher, and writer; I became a designer, teacher, and artist—both of us are practicing kinship as a verb, with the many ways we know the-greater than-human-world and by doing so also loving ourselves.

Rachel Carson's book *The Sense of Wonder* (Carson et al., 1998) begins with the statement "Rachel Carson intended to expand *The Sense of Wonder* but time ran out before she could" (Carson et al., 1998). And so, the book in its final state is dedicated to the child who inspired her to write about the desire to share wonder. I understand too well that my life is on shorter time. In the past year several pinnacle people in my life have died unexpectedly, this has left a rawness and deepening sense of urgency to do what I can to connect to other people and the greater than human truths of our little blue planet. I do not know what else may or may not happen with the little opening of wonder I worked on in this paper—for me it is participation in a lineage of courage and creativity aligned with many, many others before me. I am grateful.

American writer, art critic, activist, and curator Lucy Lippard (date) believes, as do I, that “the potential for an activist art practice that raises consciousness about land, history, culture, and place and is a catalyst for social change cannot be underestimated” (Lippard, 1997). Eco Art education is perfectly positioned to change attitudes and behaviors towards the environment and human connection to it. What is needed most at this point for Nature + Art education to thrive is a critical mass of educators and learners to put principal concepts and values into action. Map new paths and seek new points of reference. Research in A + N education is ready for a golden era of exploration and wonder, a consortium of willing participants are needed to determine where Art + Nature education is being delivered most often and with what success. We should support and track educators creating lessons and curriculum for Eco Art education, we need to ask about their experience and the experiences of learners and how it builds ecological literacy. **Hope**, as my professor Nancy Friese pointed out recently, is a vast word, with layers and intensity I see hope on the horizon. We (I) have a good idea where to begin using familiar landmarks of worthiness to chart conscientious courses across life’s desire paths.

The artist, like the scientist, has a crucial role to perform in our society... to see things differently, act on this vision, report the failures and successes.

—John Sabraw, HuffPost (Sabraw & Brooks, 2013)

RESOURCES

NATIONAL CORE VISUAL ARTS STANDARDS

<https://www.nationalartsstandards.org/content/national-core-arts-standards-anchor-standards>

CREATING

Anchor Standard #1. Generate and conceptualize artistic ideas and work.

Anchor Standard #2. Organize and develop artistic ideas and work.

Anchor Standard #3. Refine and complete artistic work.

PRESENTING PRODUCING PREFORMING

Anchor Standard #4. Select, analyze, and interpret artistic work for presentation.

Anchor Standard #5. Develop and refine artistic techniques and work for presentation.

Anchor Standard #6. Convey meaning through the presentation of artistic work

RESPONDING

Anchor Standard #7. Perceive and analyze artistic work.

Anchor Standard #8. Interpret intent and meaning in artistic work.

Anchor Standard #9. Apply criteria to evaluate artistic work.

CONNECTING

Anchor Standard #10. Synthesize and relate knowledge and personal experiences to make art.

Anchor Standard #11. Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding.

MY ONLINE INSPIRATION

Artfully Learning
<https://theartsandeducation.wordpress.com>

Art Corps: Make Art Anyway
<https://artscorps.org>

BioMedia Lab
<http://www.biomedialab.org>

Children and Nature Network: Helping Children Thrive Outside
<https://www.childrenandnature.org>

Conservation Place: the Arts, Environmental Justice, and the Ecological Crisis
<https://www.britishartstudies.ac.uk/issues/issue-index/issue-18/arts-environmental-justice-ecological-crisis>

Explorer Art21 Educational Resources
<https://art21.org/explore/>

Grassland Community Project
https://www.grasslands.dk/index_eng.html

Jungle Life
<https://www.artbiocollaborative.com/junglelife>

Kettle's Yard House Museums: University of Cambridge UK
<https://www.kettlesyard.co.uk>

Nature in Art gallery and Museum
<https://natureinart.org.uk>

Newfields: a Place for Nature and the Arts
<https://discovernewfields.org>

RISD Nature Lab
<https://naturelab.risd.edu>

UNICEF USA | Mental Health
<https://www.unicefusa.org>

Wysing Arts Center
<http://www.wysingartscentre.org>

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COLOPHON & LIST OF ILLUSTRATIONS

This book was designed by Margaret McCullough using the typefaces Mrs Eaves & Mr Eaves (sans /modern)

Mrs Eaves is a transitional humanist serif typeface designed by Zuzana Licko in 1996. It is a variant of Baskerville, which was designed in Birmingham, England, in the 1750s. Mrs Eaves adapts Baskerville for use in display contexts, such as headings and book blurbs, through the use of a low x-height and a range of unusual combined characters or ligatures.

Mr Eaves is a humanist sans-serif typeface designed by Zuzana Licko and published through Emigre in 2009. It was created alongside its close brother, Mr Eaves Modern, to be a sans-serif companion to the popular serif Mrs Eaves. While Mr Eaves Modern strays into more geometric sans territory, Mr Eaves Sans falls more in line with the original humanist design of Mrs Eaves.

PORTFOLIO INFORMATION & VITA

Margaret McCullough — portfolio available: margaretmccullough.com

Process as artist, designer and educator are intertwined with my love of experience, of serendipity as well as sagacity. I am likely to find an array of related ways into a given subject: historical research, written and visual process and study, interviews, collaborations, and engrossed comparative studies (applying all or more) to seed ideas and inspire others. The result of my curiosity produces conceptual ideas that I then enjoy refining, allowing communication and form to be pulled into structure but maintaining the joy of spontaneous experience. This revisionary process often reveals multiple related points of view—small ideas informing a greater whole.

Rhode Island School of Art + Design, Masters Art Education
Department of Teaching and Learning Art + Design, 2022

Metropolitan State University of Denver, Bachelor of Fine Arts
Major: Art, Concentration: Design, 2003

Continuing Education

Ah Haa School for the Arts, 2017
Art Students League of Denver, 2003 - 2018
Rocky Mountain College of Art & Design
Denver Museum of Nature & Science, Design Internship, 2003

Design and illustration examples at margaretmccullough.com

The Denver Museum of Nature & Science
The Smithsonian Institution - National Museum of the American Indian
Cornell University - Cornell University Press
Along with many others clients for design & illustration...

- 2022 Rhode Island School of Art + Design: Thesis Exhibition
- 2020 Reconnect: MSU Denver Alumni Exhibition Juried Show
Jurors: Carlos Frésquez, Professor of Art, Metropolitan State University of Denver
Zoe Larkins - Assistant Curator, Museum of Contemporary Art Denver
Natascha Seideneck - Assistant Professor of Art, Metropolitan State University of Denver
- 2019 Spark Gallery BLUE/GREEN: Art & Environment
Juror: Cecily Cullen, Creative Director of Center for Visual Arts
- 2017 The Final Show—Ironton Studios
- 2004 Metropolitan State University of Denver Annual Juried Show
- 2004 Metropolitan State University of Denver Graduating Design Portfolio Exhibit
- 2001 9/11 Twin Towers Awareness Show & Educational Fundraiser

