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Mapping Eco-Art Education

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In recent years I have been on a journey to explore the role of art education in fostering ecological literacy.¹ Based on a desire to find a more socially relevant role for art education, I have been investigating how the visual arts and art education can be used to raise awareness of and engagement with environmental concepts and issues. Through workshops, seminars and writing, I have come to think of my work in this area as a form of guerilla gardening. Used as a means of planting seeds for the greening of art education, this type of activism forces me out of the confines of my studio classroom to work the soil in a variety of fertile educational gardens. It is in these places that I cultivate ideas with students, teachers, administrators and parents about the intersections of nature and culture, and promote their roles in developing a more sustainable means of living on this planet.

While I have tracked discussions about eco-art education back over three decades in the literature, I am still working through, as are others, exactly what eco-art education is and how it contributes to developing learners' ecological literacy. A previous contribution to this journal (Inwood, 2005) reported on a pilot study in this area and began mapping my journey into this emerging field of study. This map has continued to

develop since that time and therefore one goal for this article is to track some of the theoretical and pedagogical discourse I have found most intriguing in recent years. A second goal is to propose new directions in which eco-art education can grow, hopefully encouraging other educators and scholars to expand it beyond its current boundaries, contributing to the greening of art education and to the growth of ecological literacy in general.

Eco-art education integrates art education with environmental education as a means of developing awareness of and interaction with environmental concepts and issues, such as conservation, preservation, restoration and sustainability. In this, eco-art education promises an innovative approach to ecological and environmental education, one that balances the traditional roots of these disciplines (found in the cognitive, positivist approaches of science education) with the more creative, affective and sensory approaches of art education. Often referred to as environmental art education, eco-art education also offers the potential for the greening of the discipline of art education in general, which has been slow to engage with and respond to the environmental crises that are distinguishing our times. While artists have been devising creative solutions to environmental problems since the 1970s, art educators for the most part have not kept pace, and have not done enough to share their work with a broader audience.

This is unfortunate, as art education offers a dynamic way to increase the power and relevancy of learning about the environment by providing an alternate means for furthering learners' ecological literacy, one that moves beyond the science-based boundaries of much environmental education. This assertion has supporters from within the traditional factions of environmental education: for example, Orr (1992) argued that ecological literacy will not be instilled in children unless it is integrated into a wider variety of subject areas, including the arts. The need for more arts-based, affective approaches to environmental education has been echoed by many others (Graff, 1990; Adams, 1991; Lindholdt, 1999; Gurevitz, 2000). I share with these authors a belief that the sensory, subjective orientation typically found in art education will not only help

to shift learners' *attitudes* about ecological concerns, but may prove to be more effective in changing *behaviors* towards the environment than traditional science-based approaches. It is this ability to stimulate learners' minds yet also touch their hearts that makes art education a powerful ally in fostering ecological literacy.

Locating the roots of eco-art education in artistic practice

Eco-art education has in part come into existence as a response to the development of environmental and ecological art, which artists began creating in the late 1960s to demonstrate their growing awareness of environmental concerns. Artists such as Hans Haacke, Joseph Beuys and Alan Sonfist can be seen as pioneers in this mode of art-making, which should not be characterized in terms of media or style but instead in terms of common ideas and shared values. Artists such as Agnes Denes, Mel Chin, Ana Mendieta, Newton Harrison and Helen Mayer Harrison, Lynne Hull, Mierle Laderman-Ukeles, Dominique Mazeaud, and Andy Goldsworthy have touched countless viewers through their work, in terms of their innovative means of communication, their understanding of environmental concerns and creative solutions for them, and in reaching audiences in ways that scientists and academics have been unable to do. Watts (2005) recognizes the complex roles these artists play: "Ecoartists can be thought of as midwives for the earth, facilitators of environmental education, consultants for environmental restoration and visionaries for transforming ecological communities" (para. 4). Eco-artists have the support of many contemporary curators and critics, who are in agreement that art can and should play a central role in creatively investigating, protecting and improving our environments (Matilsky, 1992; Gablik, 1995; Spaid, 2002).

Familiarity with environmentally-focused artists has grown significantly over the past five years, thanks in part to exhibition catalogues by Matilsky (1992) and Spaid (2002). The Internet has also proven to be a crucial means of sharing information about eco-art; sites such as Green Museum, ArtsEdNet and the Community Arts Network have been indispensable sites for archiving artworks, publishing related

texts, and stimulating discourse.² They demonstrate the wide range of art-making that currently falls under the eco-art banner, from nature-based sculptures, to creative book works, to large scale installations on reclaimed industrial lands. In this, they support an ongoing dialogue around the definitions and boundaries of environmental art, ecological art, nature-based art, ecoventions, and reclamation art. Green Museum's (2006) definition, which draws from artist Lynne Hull's writing, generously accepts any work into this designation that "helps improve our relationship with the natural world" (n.p.) including those works that interpret nature, work with environmental forces and materials, re-envision our relationship to nature, and reclaim or remediate damaged environments. This approach emphasizes artists' relationships to the natural world, an important part of environmentally-focused work, but in doing so, somewhat overlooks the work of those artists who focus on environmental issues within urban or built environments.³

Rosenthal (2003) offers a more inclusive definition, one that not only helps distinguish eco-art, but also provides a foundation for eco-art education. She prefers to identify artists and their work as environmental by a common set of values that informs their art and their lives. These values include the support of a land ethic (valuing all forms of life on the planet), systems thinking, sustainability, social and biological diversity, social and environmental justice, collaboration and integrity which Rosenthal refers to as "closing the gap between what we value and how we act in the world" (n.p.). This definition should stimulate art educators to think more broadly of what environmental art experiences can and should include; for many, having learners make nature drawings or use found materials has been sufficient to label it environmental art. While these traditional approaches to art curricula are a start, they fall short of fully developing ecological literacy in learners by only echoing the insufficient measures our society is taking to deal with the complex environmental challenges we face. Rosenthal's (2003) definition sets the bar higher by asking artists, teachers and students to consider not just the subject matter or media of their work, but more importantly the content and the values upon which it is built.

Mapping the theoretical foundations of eco-art education

While environmentally-focused art has certainly inspired the emergence of eco-art education, academics, critics and curators have also contributed by proposing theoretical models to support it. In this, many of these writers have drawn from the philosophical discussions taking place in the field of environmental studies. Jagodzinski (1987) was one of the first to summarize some of these debates and consider its ramifications for visual arts education. He examined the roots of a "green aesthetic" by tracing its origins back to the ancient Greeks' separation of the realms of politics and philosophy, male and female, and public and private domains. He saw the profound effects of these separations leading to the patriarchal control of religious and aesthetic ideals; when combined with the mindset of the Enlightenment, this provided a fertile ground for the estrangement of mind/body and culture/nature, eventually leading to rampant industrialization and consumerism. While cynical about art education's continued role in an industrialized society, he nevertheless predicted a need for it in a 'greener' world to help heal the Cartesian mind/body split. This could best be achieved, in his mind, through the influence of eco-feminism on the creation of new myths on which to re-conceive of our relationship with nature.

Graff (1990) shared jagodzinski's (1987) take on this dualism, and agreed that it lay at the root of our environmental ills. He argued for a more holistic approach to the way in which we deal with environmental problems, positioning art and ecology as allies, rather than in opposition to one another. Also drawing from experiences with eco-feminism, Goddess religion, mysticism, and systems theory, he saw many similarities between art-making and ecology, which both utilize processes such as struggle, symbiosis, evolution, and creativity. He took it a step further however, by articulating an ecological vision for art education, calling for an interdisciplinary approach to create an environmentally-oriented society that would better understand the interconnectedness of all life on the planet.

Perhaps the seminal writer in the development of eco-art education theory has been the critic Suzi Gablik (1991, 1995)

as her book *The Reenchantment of Art* has been widely read. She articulated the need for a radical change in art-making to reflect the shift from modernist to postmodernist aesthetics by criticizing Modernism's nonrelational, noninteractive, nonparticipatory orientation (1995, p. 80) as being too removed from any living social reality or moral imperative. Instead she offered an alternate vision of art-making based on her theory of connective aesthetics (1995, p. 84). By better connecting art to the realities of daily living, she argued that art can be used effectively as an agent of social change, one that would capture the public's attention through its creative, innovative approaches to society's problems. In this, Gablik (1991, 1995) made an important contribution to the definition of eco-art education: she documented a growing trend in art-making that related art to environmental concerns, and created a new lens through which this work could be seen and appreciated. Art educators who shared Gablik's interest were not only given an entrée to art focused on environmental issues, but were also provided with an aesthetic framework within which to present this art to students.

Writers who supported Gablik's ideas began building a body of literature in eco-art education; Blandy and Hoffman's (1993) article in *Studies in Art Education* is an excellent example of this. Echoing Gablik's notion of connective aesthetics, these authors positioned art as "a means to engage individuals in social and political issues in ways that empower them, create alliances, and establish community" (p. 29). They also made clear their agenda of defining and promoting eco-art education, what they called an art education of place, by focusing their attention specifically on environmental concerns. They saw a direct correlation between increasing degradation of the environment and the amount of ignorance about environmental issues, and therefore called on art educators to play a role in imagining "new relations among art, community and environment" (p. 23). As the basis for their approach, they turned to eco-theory and community-based art education and ultimately defined eco-art education as a means "to teach students about art in a way that promotes an understanding of the interdependence and interconnectedness of all things" (p. 28).

While sharing many of their same values as the basis for eco-art education (interconnectedness, empathy, compassion, and respect for the environment), Garoian (1998) added a new element to its definition: a negation of the exploitive attitudes and behaviors of western art, which he saw as perpetuating an ideology of human domination of the earth. He did this through the identification of five metaphors that represent "a canon by which the environment was visualized, codified and appropriated for the advancement of western European culture" (p. 254). These included concepts commonly found in art education programs: "pictorial space to circumscribe the land, perspective to survey the land, the sublime to valorize the land, mapping to simulate the land on paper, and the machine to construct a surrogate land" (p. 254). This positioned eco-art education in opposition to traditional approaches to art education, and raised an interesting question for readers to consider: was it sufficient to raise awareness of the ideology of these metaphors in an art education program, or did their use have to be discontinued all together?

What becomes clear from a review of these texts is that locating the theoretical footings of eco-art education requires scholars to start by more closely examining the foundations of our own discipline. Modernist philosophies and positivist values are not a sympathetic environment in which to cultivate eco-art education or green art education more generally; instead, reconstructivist postmodernism and social constructivism are proving to be more conducive in nurturing this emerging field. However these footings also require scholars and educators to look beyond the confines of our own discipline and engage in interdisciplinary thinking in order to rationalize and contextualize eco-art education. The theories of environmental studies have proved particularly useful for stimulating discussion and developing concepts; for example, jagodzinski (1987) and Graff (1990) drew on the discourse of eco-feminism, while Blandy and Hoffman (1993) espoused a bioregionalist perspective. The current writing on education for sustainability and transformative education offer particularly rich sites for further interdisciplinary investigations.

The end goal here is not to arrive at one definitive theory to

support work in eco-art education, but to stimulate discussion within art education and environmental studies circles about what it brings to each field. Ultimately a range of concepts, theories and perspectives will provide a broader base of support for work in this area, hopefully inspiring artists, educators and learners to tackle environmental challenges from a variety of angles. In turn, the creative endeavors of these groups may provide fertile ground in which to grow new theoretical approaches to support their innovative efforts.

Planning a pedagogy for eco-art education

Certainly the theoretical groundwork laid in the late 1980s and 1990s was important in stimulating discussion about appropriate pedagogical approaches for eco-art education. It established foundations on which teaching approaches to eco-art education could be built, provided suggestions for content, and in many cases offered concrete ideas for implementation.

Many of these same authors proposed the means through which eco-art education could be taught. Gablik (1995) promoted a transformative learning approach, based on empathetic listening, dialogue, and collaboration, which she saw as an act of empowerment that would lead to learners' increased ability to "make room for the Other" (p.82). Blandy and Hoffman (1993) advocated a bioregionalist perspective, one that took the needs of the community into consideration. In this, art students would bring "a high degree of self-investment and reflection" (p. 28) to investigate issues of place and community, highlighting their region's social and political concerns. Artworks with an ecological orientation and a respect for the environment could be used to invoke discussion on these issues. They also saw the possibility of enlarging the range of activities typically found in art class: "Exploring and conveying relationships with the Earth; performing acts that cleanse the land, air, and water; and empowering people to act for a healthier environment are important and credible tasks for the artist and important and credible acts to be studied as art" (p. 30).

Similarly Neperud (1995) highlighted the importance of creat-

ing a contextually situated curriculum, one that was rooted "in the texture of each community" (p. 236). He stressed the development of learners' understanding of the ideological meanings of environments with particular emphasis on understanding their own environmental interpretations and values. Learning in eco-art education, he felt, was best done in an experiential, interactive, creative and imaginative manner, as this would develop learners' feelings of empowerment and interconnectivity. Garoian (1998) also proposed a specific pedagogy for eco-art education; this included an introduction to environmental issues, critiques of the metaphors and values inherent in landscape art, discussions about the range of environmental perspectives from different cultures and an encouragement of students' stewardship of the land.

Other art educators were inspired by developments in eco-feminism, and articulated its influence on their pedagogy. Hicks and King (1996) were inspired by Joan Tronto's (1993) feminist conception of care that proposed three dimensions of caring: caring about, taking care of and caring for. This led these authors to propose five strategies or steps for an eco-art pedagogy, which they called foundational, situational, confrontational/restorational, relational, and sustainable strategies. They encouraged art educators to play a role in creating art curricula that leads students to cross conceptual and emotional boundaries to better engage humans with the needs of other living things. Keifer-Boyd (2002) also drew from an eco-feminist perspective but to a slightly different end, by identifying the need for a "participatory, socially interactive framework" that emphasizes caring for symbiotic relationships within a specific place over the long term (p. 333). She called for artistic processes that denote "life cycles and interrelationships, rather than products of a permanent nature," as well as focusing on "local, ecological and social transformation rather than beauty, ownership and economic gain" as the main rationale for art-making (p. 333).

These writers share a common belief in the power of linking art education to its context by rooting learning in the local community. This draws from and supports an approach in environmental education known as place-based educa-

tion. Defined by Powers (2004) as being "grounded in the resources, issues, and values of the local community," place-based education "focuses on using the local community as an integrating context for learning at all levels. By fostering the growth of partnerships between schools and communities, place-based education works simultaneously to boost student achievement and improve a community's environmental quality and social and economic vitality" (p.17).⁴ Sanger's (1997) description of a three-prong approach to place-based learning, which supports the models of the afore-mentioned authors, is useful in its simplicity and applicability to any discipline or artistic endeavor. His model is to build connections, build community, and use narratives. Building connections implies an experiential, interdisciplinary approach to learning that develops students' skills, confidence and understanding of the value of their place. Building community entails using cooperative learning strategies by involving all members of a place in the process of education. Using narratives means listening and learning from the stories of the community members and the land and the ways in which they are intertwined. Smith (2002) reiterated and extended these ideas as key strategies for place-based education. He believed that students' questions and concerns should play a central role in determining the curriculum, which should be interdisciplinary in nature. He also advocated that students become creators of community knowledge, not just consumers, with teachers acting as guides or facilitators in this process.

Whether grounded in environmental or aesthetic theories, there are many similarities in these pedagogical discussions about eco-art education. These authors recommend a pedagogy that is community-based, interdisciplinary, experiential, interactive, dialogic, ideologically-aware, and built on the values of empathy, sustainability and respect for all life on this planet. In this, eco-art education is proving compatible with other contemporary approaches to art education, such as community-based art education, built environment education, urban art education and comprehensive art education. Together they represent a substantial shift away from more traditional approaches to art education that promote a standardized curriculum suitable for all learners, regardless of place,

culture or individual interests. This shift could be considered one of the ways eco-art education is helping to green the discipline of art education as a whole.

To fully develop learning experiences in eco-art education, these pedagogical strategies needed to be complemented by content appropriate for each set of learners. This is where standardized curriculum falls short, as the images and ideas that lessons are based on are often far removed from the lives of learners. As the images, sites and ideas of eco-art education should be drawn from and tailored to each class, school and community, there is typically a greater degree of engagement on the part of learners from the start. As learners identify and study features of and issues central to their own community, they are developing their own content and constructing their own knowledge, a powerful means of making learning relevant. It is through this means that environmental issues will be made personal, and learners will be more likely to translate shifts in thinking into concrete action.

Charting new territory: research into eco-art education

While artists, theorists and educators have made key contributions to the growth of eco-art education, there has been little formal inquiry made into its methods or content on the part of educational researchers. There is a small body of literature that documents the experiences of individual educators in eco-art education, (Birt, Krug, & Sheridan, 1997; Anderson, 2000; Keifer-Boyd, 2002; Holmes, 2002) but little systematic inquiry done in creating, implementing and analyzing eco-art curriculum and pedagogy in classrooms. What is sorely needed is sustained research on the praxis of eco-art education, highlighting how the theoretical groundwork merges with an appropriate pedagogy to define classroom practice.

My current research study initiates just such an undertaking by bringing together a team of elementary teachers with a university-based educator (myself) to investigate the experience of developing a curricular model (or models) of eco-art education. A collaborative action research approach is providing the methodological framework within which the team is working, allowing for maximum flexibility and self-direction

as the process unfolds. This approach endeavors to honor the central role teachers play in the design of innovative curriculum and pedagogy, and provides a unique opportunity to learn about the content and structure of eco-art education and the ways in which teachers involve their students in this type of learning.

As the framework that guides the study, collaborative action research provides an intriguing pathway into the development of eco-art education by challenging dominant paradigms of curriculum development. It provides the means for a team-based approach that aims for cooperation and co-learning in curriculum development, allowing for multiple voices to contribute to the creation of an innovative model of art education. In this, it runs counter to more traditional approaches to curriculum development, which typically privilege the formal and theoretical knowledge of academics over the tacit knowledge and pedagogical expertise of practicing teachers. It offers a unique opportunity for the team to share and exchange practical and theoretical expertise in order to plan, implement, observe and reflect on eco-art curricula over the span of a school year.

The research team will provide insight into the nature of curricular and pedagogical design in eco-art education. We are exploring the following questions: how do teachers define eco-art education and implement it in their classrooms? How do they weave together art and environmental education in a cohesive way to help their students learn about environmental issues and concepts? What curricular content and structure strikes a cord with teachers and students in elementary eco-art lessons? And what do teachers learn through the process? This study should also help to better comprehend the benefits and challenges of eco-art education from the viewpoint of practicing elementary educators, and as well as understand their feelings of self-efficacy: what factors influence their perception of whether they can teach in this area effectively? Due to be completed later this year, I hope to share our findings in a future issue of this journal.

In this research, I am guided by Lawrence-Lightfoot and

Davis' (1997) analogy for research; they see research less as a form of excavation and more as a "rich ecological mapping" (p. 139). Much research in the past has been conceived of as excavation, as a means of unearthing truths about the nature of knowing and learning; this metaphor is rife with destructive overtones, however, and involves invasive means to find existing knowledge. Instead I prefer Lawrence-Lightfoot and Davis' metaphor of mapping as it positions inquiry as exploratory, less damaging, and open to revisions as one's knowledge of a territory deepens.

As research in eco-art education is still in its early stages, there is so much more to explore; the mapping has only just begun. Studies are needed to ascertain where eco-art education is being delivered most frequently, and at what levels of schooling. What setting best complements its goals: schools, community or outdoor education centers? We need to better understand who is creating lessons in eco-art education, and what their experience involves. But perhaps the biggest gap in our knowledge currently is the experience of the learners involved in eco-art education: what are their perceptions of their eco-art learning experiences? What types of activities are most engaging and memorable for them, and what is the effect on their ecological literacy? Qualitative studies in these areas would be an important addition to art education scholarship, but also to the field of environmental education research. This latter area, saturated with experimental and quasi-experimental approaches to research, needs to continue to broaden its approaches to inquiry to fully understand the means by which ecological literacy is developed.

Conclusion

Ultimately I endeavor to garner interest in the eco-art movement and its achievements amongst educators in a variety of elementary, secondary and higher education contexts. On one hand, I see this as a way to further the greening of the field of art education, to help grow a more sustainable praxis within this discipline. This entails a philosophical shift, one that re-connects art-making and art education to the issues and concerns of the communities in which they take place, but also a practical shift, one that reduces the waste and toxicity

on which many art programs are built. On the other hand, I see eco-art education as a means to broaden the boundaries of environmental education that have been rooted so heavily in science education in the past. Adding creative voices to this field may encourage a more interdisciplinary approach to environmental education, broadening and deepening its power with teachers and learners in school and community settings.

I concur with Lippard (1997) who believes 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" (p.19). I also share Hull's belief that "It is the venue of artists, poets, and philosophers to create new myths, revise the stories, encourage the shifts in attitude we must have for all to survive in the long range" (quoted in Kiefer-Boyd, 2002, p. 328). Eco-art education is well positioned, alongside environmental and eco-art, to contribute to changing attitudes and behaviors towards the environment. What is needed most at this point, in order for the field to survive and to thrive, is a critical mass of educators and learners to put these concepts and values into action and to map their own routes into this new territory.

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Footnotes

¹The Toronto District School Board (2007) defines ecological literacy as being about "examining deeply what lies beneath and above what we humans are creating – beneath to reveal the impacts that lie out of sight and out of mind, and above to go beyond politics, sports, wars and trading agreements. It means more than just understanding our connection to, and dependence and impact on the Earth's natural systems. It means rethinking the details of our lives". Puk (2002) builds on this by stating that an "ecologically literate person is one who is a responsible, lifelong learner who strives to improve the human condition and the environment within the context of self, human groups, the biosphere and the ecosphere" (p. 4).

²These sites can be accessed at Green Museum: <http://greenmuseum.org/> and the Community Arts Network: <http://www.communityarts.net/archivefiles/environment/index.php> ArtsEdNet is no longer in existence, but its eco-art content can now be found on the Green Museum site at <http://greenmuseum.org/c/aen/>.

³I prefer a more inclusive definition of the term environment, and use it to refer to the natural, built and cultural spaces and places within which we co-exist with other living things.

⁴Place-based education is a relatively new addition to discussions of curriculum and pedagogy in North America, despite its roots in ancient practices; up until the Industrial Revolution, education was grounded in its local place not by choice, but as a means of survival. Some traditional communities have maintained a close connection with their schools, but in many more (particularly in industrialized nations) these connections have been greatly reduced, if not entirely lost, over the last century, in the shift towards curricular standardization, national achievement tests, and mass-produced curricular resources. Therefore, while place-based education might have been implicit in schooling in the past, it is seen as an innovative approach today.