The Possibility of Eco-Literate Music Pedagogy

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ABSTRACT

Facing the prospect of global ecological crises, how can music education matter? With the advent of ecomusicology, the connection between music and environment raises many new challenges. Ecological literacy has become an important topic in educational philosophy, but it is largely missing from music education literature. The question guiding this inquiry is: What might music education for ecological literacy be like? To answer this question, I consider some possible ecological theories—including ecological literacy, ecomusicology, indigenous knowledge, and spirituality—that can provide a stable starting point and framework of music education for ecological literacy.

Keywords: music education philosophy, ecological literacy, environment, ecomusicology, deep ecology, spirituality

Introduction

A Vignette:¹ On a warm April morning, I walk through Tudek Park in Pennsylvania (USA) with my eight-month-old son. We begin our walk, and the primary sounds we hear are those of children singing their joyous, rhythmic songs; songs of excited sliding and swinging on playground equipment, and sounds of playing soccer; children running and kicking the black and white ball into a small net. The pieces of play equipment have their own sounds—squeaking and swishing. There are also the sounds of adults talking; a family has a reunion under a pavilion's wall-less rooftop. Adult conversation and childish shouts intermingle. The rumble of cars and the singing of birds underlie these sounds, but are present nonetheless. My aim lies deeper in the park, since my child is too young to use the playground. As we walk down the hill, the sounds of birds and squirrels become more prominent, while human sounds fade. Dogs are barking further into the park, and we sit, shoeless, in the grass under a newly budding tulip tree, somewhat (but not completely) away from human sounds.
Here we listen to the music of the park, and I try to sing some of the sounds I hear, and my son also sings in a low monotone. We touch the dirt, grass, the tree’s trunk, branches and the buds emerging from this tree as we crawl on the ground and sing. It’s possible that many people walking by would not call our songs music, though everybody (mostly dog walkers) stops to say “hi” to my son, and he sings back his low droning song (“da, ah, ah, da”), often crescendoing at the end for emphasis. The experience of nature’s music is a learning experience—for me and my son—where my aim is to cultivate ecological consciousness—feeling a sense of place, of the environment, of non-human life (the ecology of where we live).

Nature regularly exhibits an abundance of musicing, from the songs of birds, to the rustling leaves, to the cicadas’ recurring summer song. Educationally, children benefit when this sonic soundscape becomes a prominent part of their learning. Teachers and students benefit by being connected to the places they live. As Seneca famously said, all art is but imitation of nature. The music of nature is an immeasurable source of inspiration for musicing of all kinds. The alternative to a music education that considers nature’s musicing, where people (teachers and students) do not consider the sonic environments of the places where they stand, seems to be missing something essential.

A Curiosity: At the start of this paper, a curiosity arose: facing global ecological crises, can music education matter? This is an ethical question: one that is motivated by music education philosopher, David Elliott’s (Elliott & Silverman 2015) challenging title Music Matters. One reason Elliott’s book was influential for me as a music teacher was that he contested our field’s aesthetic assumptions about
the goodness of music. “But what could these goods or values be? Good for what and whom? And when and how?” (4). For music education to matter, I believe it must be good for human and non-human life on the planet.

As music education philosopher, Wayne Bowman (2007) suggests, music is inherently an ethical activity, and that theorizing must begin with “music as a social act and social fact” (109). Recent concerns with global ecological crises are inherently social issues that I argue can and should be addressed in music classrooms. Does music education matter if it cannot be harnessed to tackle one of the greatest issue humans face? Does music education matter if teachers of all subjects stand by while our environment is destroyed and, as a result, our own lives and those of children we teach? Why music education?

Music adds uniquely to the ecological experience I described in my initial vignette. The experience represents what I call learning, but not necessarily music education. I argue for the possibility that music education has a unique opportunity to cultivate ecological consciousness, and music education for ecological literacy is an underdeveloped theme or concern, but an essential end for our pedagogy and curriculum. I also urge that music education for ecological ends are not only possible, but can be essential and meaningful. Moreover, I suspect that many music teachers have perhaps unwittingly developed ecological music lessons.

Ecological Literacy: Ecological literacy (Orr 1992) has become an important concern in educational philosophy, but is largely missing from music education literature. Why is ecological literacy missing in music education discourse? Two possibilities come to mind: 1) that music provides no meaningful insight into ecological crises; or 2) that music education is capable of being for ecological literacy in some way, but that scholarly music education literature has been limited by what Mantie and Talbot (2015) call, “the habits of the status quo,” which “serve ... to blind us from alternatives” (131). In part of this paper I will demonstrate that the first possibility is unlikely, and the second possibility is pregnant with possibilities.
Our planet is said by many to be at a crossroads and faces ecological crises. Eco-criticism has also found a place in musicological circles through the advent of ecomusicology (e.g., Allen, 2011; Watkins, 2011); more detail into ecomusicology follows later in this paper. Religious historian and ecotheologian, Thomas Berry (1999) writes, “The deepest cause of the present devastation is found in a mode of consciousness that has established a radical discontinuity between the human and other modes of being and the bestowal of all rights on humans” (4). It may be to the wellness of human life that eco-literate music pedagogy draws from ecomusicology and spiritual conceptions of connectedness.

What Berry called radical discontinuity I have previously labeled disconnection from nature. My recent research into a neglected historical music education figure, Satis Coleman, is pertinent to the current question (Shevock 2015). Her teaching reveals a spiritual philosophy empowering students to experience silence in nature.13 In that paper, I write against schooling that disconnects students from nature and propose that classroom music “can connect students to the world around them through musical experiences and for broader goals such as developing ecological consciousness, stewardship of the environment, learning about their local community, empathizing with the other, or understanding their family histories” (59). Because “cultivating ecological consciousness is a process of learning to appreciate silence and solitude and rediscovering how to listen” (Devall & Sessions, 1985, 8), music education might sometimes leave the physical space of the classroom and rediscover how to listen to the music of nature that, in fact, fills that silence and solitude. An eco-literate music pedagogy might, in this way, be connecting.

**Purpose**

Morton (2012) suggests that music education philosophy “includes and embraces social and ecological justice” (487). The current paper embodies this need and the MayDay group’s Action Ideal II:
Since social, cultural and political contexts of musical actions are integrally tied to the nature and values of all human activity, a secure theoretical foundation that unites the actions of music with the various contexts and meaning of those actions is essential to music education in both research and practice. (http://www.maydaygroup.org/about-us/action-for-change-in-music-education)

One way human activity can be embodied as social, cultural, and political praxis is in relation to ecological crises. These can be expressed as variously as the pastoral sounds of many classical pieces, or the direct ecological activism of many songs in the Joe Hill tradition (see Pedelty 2012). The current argument is guided by the question: What might music education for ecological literacy be like? Ecological philosophies emerge from the fields of ecological literacy, ecomusicology, spirituality, indigenous knowledge, and deep ecology. In Philosophy on Soil, Ivan Illich (1990) declared:

As philosophers, we search below our feet because our generation has lost its grounding in both soil and virtue. By virtue, we mean that shape, order and direction of action informed by tradition, bounded by place, and qualified by choices made within the habitual reach of the actor; we mean practice mutually recognized as being good within a shared local culture that enhances the memories of a place; ... we issue a call for a philosophy of soil: a clear, disciplined analysis of that experience and memory of soil without which neither virtue nor some new kind of substance can be. (1)

At the intersection of soil, virtue, action, and culture the need for eco-literate music pedagogy could be made. Since Illich connects philosophy of soil to grounding, local culture, and memories of a place, it seems logical that such a music education philosophy would seem to need to be placed, in both aims and means. That is, rather than aiming to create mobile world-citizens who perform interchangeable musics (genres, ensembles, and repertoire), the aim might be to create virtuous, local citizens, grounded in their local cultures and enact local musics in school and community.

There are difficulties inherent in trying to implement Illich’s declaration. As an example of the difficulties between the way we music educate and such a placed conception of virtue, music educator Vincent Bates (2011) suggests, “Students who
are poor and rural, then, must not only suppress and replace cultural identities, but also are usually required to leave cherished people and places” (112). Elsewhere, Bates (2013) argues rural ideals, including community and ecological sustainability, can counter industrialization by promoting Theobald’s (1997) concept, intradependence, which “adds the element of place in the sense that quality of life is inextricably linked to preserving, sustaining, and beautifying local environments” (Bates 2013, 35-36). However, if the places where people live are largely undervalued (as Bates’s statement on the rural poor needing to leave cherished people and places suggests) therein resonates a challenge to constructing an effective (enacted) eco-literate music pedagogy: we in industrial societies do not value place or soil.

However, eco-literate music pedagogy would not benefit only students living in rural areas. While I was unable to find music education scholarship explicitly connecting living in cities to ecological sustainability, it seems, in relation to cultivating Illich’s philosophy of soil and Bates’s rural ideals, city people also experience devalued places that might be cherished by music education. Gaztambide-Fernández (2011) described cities as places of “proximity in which bodies are brought into close contact with each other through agglomeration” (18), spaces that are “unequally distributed” (19). Whether that proximity is noted as a place of culture and privilege, or “a place of decay, poverty, and danger” (19), eco-literate music teachers might cultivate a philosophy of soil. Squirrels and house sparrows sing their songs, winds blow, and seasons change even in the densest population centers.

The purpose of this paper is to provide a starting point for dialogue and praxis for music education for ecological literacy. My goals are to provide theory that is approachable, so that, through the work of scholars and teacher-intellectuals (who enact pedagogy), eco-literate music pedagogy might be envisioned, modified, revised, and embedded in the aims of music education to mend a world facing ecological crises. This paper is organized to, first, introduce the
concept of ecological literacy, and then to begin with what is available in music education scholarship, then more broadly in musicology. Next, music education for ecological literacy will be deepened culturally (e.g., including indigenous knowledge) and spiritually, both of which might provide context for an eco-literate music pedagogy. The decision in the present paper is to choose breadth over depth.

Ecological Literacy

Ecological literacy theorist, David Orr (1992) suggests humanity faces three crises that need to be addressed through education. These crises are the food crisis, the fuel crisis, and climate change. The food crisis derives from soil loss, and is connected to our farming practices and rapidly rising world population. The era of cheap energy has driven us toward fossil fuel exhaustion. The crisis of climate change “has to do with ecological thresholds and the limits of natural systems” (3). Orr continues that ecological literacy has become difficult today, “because there is less opportunity for the direct experience of [nature]” (89). The three crises require interdisciplinary approaches to ecological literacy, and all subjects, even music education, must address the ecological crises and provide insight into, and direct experience of nature. “To become a significant force for a sustainable and human world, [ecological literacy] must be woven throughout the entire curriculum and through all of the operations of the institutions, and not confined to a few scattered courses” (152). Music education can, in the spirit of ecological literacy, teach students about the three crises, and lead students to directly experience nature.

Such an integrative approach to music education might follow any art integration style. Though a full clarification of eco-literate music pedagogy through arts integration theory is beyond the scope of the current paper, in Bresler’s (1995) theory, these are the subservient, co-equal, affective, and social integration styles. In the subservient style, music is used to teach another subject (like biology, ecology, climate science, or chemistry). In the co-equal style, the music teacher and science teacher might work together to construct and implement lessons. In the affective
style, teachers use music’s emotional attributes. In the social-integration style, school-wide events such as assemblies might be used to explore environmental issues. Each of these styles (and possibly others) would come into play in eco-literate music pedagogy.

“All My Relations”

In music education philosophy, Charlene Morton (2012) began the work of constructing a rationale for an ecological music education—important when music education is dominated by “a subject specific view” (473) of our field. Music education needs to be for the future, that is, we want a future living on a healthy planet that sustains human and non-human life. Using John Dewey and other philosophers, Morton connected environmental education to “Aboriginal educators’ commitments to nurturing a sense of wonder and appreciation for the social, economic, and environmental interdependence of ‘all my relations’” (478). And then she asks, “What is music education for?” (483), and concludes that our field needs to be oriented to social and ecological justice.

With Morton’s paper in mind (along with David Orr’s ecological literacy, and Ivan Illich’s call for a philosophy of soil) to fulfill the call for ecological justice, music education must cultivate ecological literacy, which is rooted in soil, and is attained through increasing ecological consciousness. How can music be used for the increase of ecological consciousness? In the next section, I discuss the field of ecomusicology, and how its findings can be pertinent to music education.

Ecomusicology

Taijo’s Vignette: Taijo teaches secondary choir (c. 13-18) in the U.S. and is preparing a patriotic show for a Memorial Day performance in the town center. He chooses to use arrangements of America the Beautiful (arr. La Rocca), written by Katharine Lee Bates, Irving Berlin’s God Bless America (arr. Crocker & Lavender), and Woody Guthrie’s This Land is Your Land (arr. DeCormier). These songs provide the choir with opportunities to discuss the intersection of many social issues, such as Bates’s sexual orientation, Berlin’s robust-patriotism, leaning toward jingoism during WWII, and Guthrie’s response to Berlin’s song, including Guthrie’s socialist political affiliations.
Each song also provides Taijo’s students with an opportunity to consider three different visions of the way people relate to the environment. In *America the Beautiful*, blessed by heaven, Americans fit amicably into the pastoral landscape. *God Bless America* is rather like a prayer, and portrays the environment as belonging, anthropocentrically, to Americans. As such, the song serves to reify Manifest Destiny. In *This Land is Your Land*, rather than a collective, patriotic “we,” it is “you and I” to whom the land “belongs.” Taijo introduces students to the protest verses and allows students to deliberate on what Guthrie’s vision for the land, his stance against private ownership, might mean for the environment. The choir’s conversations are further complicated when Taijo introduces that *This Land is Your Land* was written as a socialist anthem and, more recently, a unifying anthem for the protesters of the 2010 BP oil spill in the Gulf of Mexico. Part of each rehearsal is dedicated to conversation, and the students decide to present the Memorial Day concert as an informance, informing their community about the eco-musical and political aspects of each song.

Taijo’s vignette was inspired by the writings of Ecomusicologist, Mark Pedelty (2012, 49—54, 58). The field of ecomusicology emerged from musicology and ethnomusicology, and presumes that understanding the environment helps us understand music, and understanding music helps us understand the environment. Pedelty (2012) suggests, “ecological synthesis is not just important for achieving more sustainable musics but also for understanding music more holistically and, therefore, better understanding what music is” (12). He continues, “music contains a reaffirming energy and the capacity to reconnect us to the living world” (12).

Ecomusicology may be gaining acceptance as a scholarly pursuit; and the summer issue 2011 of the *Journal of the American Musicological Society* was a special issue dedicated to ecomusicology. In that issue, Allen (2011) described ecomusicology as considering, “the relationships of music, culture, and nature; i.e., it is the study of musical and sonic issues, both textual and performative, as they relate to ecology and the environment” (392). Music educators informed by this description might challenge students to explore how music, culture, and nature relate to place and to global environmental crises. Ecomusicology has also informed our understanding of place, expanding it to include virtual spaces created by the sonic environments of music. As Watkins (2011) stated, “Treating music as a virtual
environment has the potential to inform ecomusicological studies of how music negotiates the conceptual and material nexus where nature and culture meet” (407). Watkins is interested in how virtual environments relate to actual environments, such as “Bedrich Smetana’s Ma Vlast (My Country) [and] John Denver’s ‘Take me Home, Country Roads,’” in which musicians create “narratives of locality” (an idea she borrows from Andy Bennett) “using manifold poetic and musical means” (405).

Ecomusicology suggests that an ecological approach to understanding music has the ability to deepen our understanding of music and the environment, it helps us understand how music, culture and nature relate, and can help us understand place (virtual, such as described above, and their corresponding physical places). Most people today are surrounded by the sounds and ecologies of popular music via technology (a virtual environment). Pedelty (2012) writes, “As distant places become more familiar, local spaces can become less so” (9). I believe this can become problematic, and music educators are able to familiarize students with their local places. As deep ecology philosophers Bill Devall and George Sessions (1985) suggested, “Our bioregion is the best place to begin cultivating ecological consciousness” (21). In the next section I will share a pedagogy rooted in the local sounds for ecological literacy.

**Natural Sounds Inspiring Pedagogy**

**Sheena’s Vignette:** An elementary school music teacher, “Sheena,” takes her music class (c. 6-11) on an afternoon field trip to a local park. Sheena gives students the task of listening to nature, meditating, labeling all of the sounds they hear (as nouns and/or adjectives), representing what they hear through creative music notation, and considering how they might compose music that captures natures’ expressive potential. Upon returning to the classroom, Sheena guides her students to consider the sounds they heard—natural sounds, human and industrial sounds affecting the ecology of their local park. From this activity arises a conversation about non-human life, about nature, and humankind’s impact on the ecological health of this park and the global environment. Incorporating sounds of nature, humans, and industrial things (the clanking of factories, the buzzing of power lines, the honking of cars), the students compose music that expresses, musically, their impression of the ecology of their local park. Finally, considering the ecological crises faced by humankind, the students give their compositions titles, which are codified
into themes for classroom dialogue about ecological issues throughout the semester.

In this vignette, Sheena is providing an opportunity for her students to compose music by drawing from the abundance of musics nature unveils. In particular, the students are learning both how music is constructed and why. As Regelski (2004) wrote, “When students compose, they not only learn how music is put together but also why it is created in the first place—that is, what music is ‘good for’” (109, emphasis in original). He points that “sound becomes ‘music’ when it is organized for particular human uses, such as listening, dancing, celebrating, worshipping” (112, emphasis in original). It may also be beneficial for music teachers to take an ecocentric (ecology centered) view of music: that these sounds are organized for human uses and for non-human uses, such as the mating rituals of birds, and pollination for plant-life. The role, then, of the teacher and students in this vignette is the role of humans as nature’s reflective beings (Berry 1999). Such an understanding does not lessen the importance of humans in nature’s meaning-construction process (of music), but provides an additional, non-anthropocentric (non-human centered), way of reflection.

Another important aspect of the previous vignette is the rootedness of place (a local park) to Sheena’s music pedagogy. Her pedagogy begins in, and is rooted in place, and from that experience with place her students create music that is inspired by (the sound ecology in their community) and for an understanding of local and global issues through dialogue. As Devall and Sessions (1985) wrote, “Many people [in environmental groups] cultivate a sense of place” (31, emphasis in original), and that this leads to ecological consciousness. Such ecological consciousness might lead to change through the creation of coalitions, protests, green politics, spiritual expressions, and questioning technology. Such an ecological sense of place can be cultivated, “even in large cities” (26). What may be most important about place and ecological consciousness are the “virtues and ideals of staying home, connected to commons; of caring for the places we belong to and those that belong to us” (Prakash & Stuchul 2004, 62). Returning, then, to the question, what might music
education for ecological literacy be like?: Place, virtue (such as Illich’s order and direction of action informed by tradition, bounded by place, and qualified by choices made within the habitual reach of the actor, and Prakash & Stuchul’s virtues and ideals of staying home), and connectedness (to place) should be essential concerns of music education for ecological literacy. But what type of knowledge cultivates human sense of place in an age of knowledge as science, which produces neutral and therefore placeless and generalizable knowledge?

**Indigenous Knowledge**

Learning from indigenous knowledge can be the key to cultivating a sense of place through music education. Semali and Kincheloe (1999) describe indigenous knowledge as, “native ways of knowing ... [I]ndigenous knowledge reflects the dynamic way in which the residents of an area have come to understand themselves in relationship to their natural environment and how they organize that folk knowledge of the flora and fauna, cultural beliefs, and history to enhance their lives” (3). Of particular importance to music teachers is the dynamism (of place, beliefs, and histories) of indigenous knowledge as a way of thinking.

Educational philosopher, Madhu Suri Prakash (1999) contrasts science with indigenous knowledge systems: while science claims to be neutral, “neutered from culture or gender, among other non-universalizables” (157), indigenous knowledge systems are rooted in culture and gender. “Ethnicity, place, soil and other elements localize, confine and define [indigenous knowledge systems]” (158). Postmodern critiques problematize scientific thinking as being connected to power, and “is revealed in the rampant destruction of indigenous knowledge systems through the post-WWII project of global development” (161). For Prakash ecological literacy beings by, “recognizing the importance of the epistemologies of non-modern or indigenous peoples” (166), and it roots knowing to place. Music education learning (knowing), rooted in place, then, can help students find connections to culture because indigenous knowledge systems contain localized understandings that are
often rooted in musics of people. Indigenous knowledge systems also include localized musics (whether folk songs or commercial music appropriated for local uses) that are rooted in place.

Clemente Abrokwa (1999) shared examples of indigenous music education in Africa, the aim of which is “to impart socio-cultural knowledge and skills to the young of the community” (198). The author continues: “Environmental factors ... greatly influence the development and use of musical instruments, dance forms, and song texts” (192), and he continues that wars, famine, interactions of different cultures, and colonialism have changed indigenous societies in Africa. He shared three environmental songs that honor the earth as “Mother Earth,” (202) and seek to protect the environment from abuse. With Abrokwa’s writing in mind, ethnomusic educators have an opportunity to find indigenous songs used around the world in order to provide music education students with an opportunity to make connections with the other (people of different cultures, races, religions, etc., who may have different ways of living than the students) and begin to realize global ecological consciousness through a more indigenous way of thinking.

Describing another music tradition, Matsunobu’s (2009) dissertation about Japanese shakuhachi, as a holistic and organic (which he connected to instrument construction) music praxis, can provide music teachers with insight; shakuhachi practitioners spend time in nature and then craft their instrument from a piece of bamboo. According to the author, shakuhachi musical practices cultivate ecological and spiritual experiences for practitioners. Interestingly, historical music educator, Satis Coleman, seems also to have made the connection between instrument making and nature (Shevock 2015). I believe that through making an instrument from natural materials children may connect meaningfully to nature. Students might also create instruments from unnatural materials, which might provide fodder for discussions about the place of people in nature in ecologically sustaining or potentially corrupting ways. Connecting to nature through the act of instrument making can be one answer to the question, how can music education matter. But
does this mean music education might become more spiritual to develop an eco-
literate pedagogy?

A Spiritual Praxis\textsuperscript{20} for Ecological Literacy

To me, it seems that a teacher enacting eco-literate music pedagogy must be self-reflective, conscious of herself and her environment and striving for greater integration, transcendence, and consciousness; and, in short, a spiritual person. Educator, author, and activist, Parker Palmer (2003) defines spirituality in teaching as, “the eternal human yearning to be connected with something larger than our own egos” (377).\textsuperscript{21} Nature is \textit{larger than our own egos}. A spiritual praxis for music education, within context of this definition, is about much more than a student’s individual and artistic feeling about music, or her experiences isolated in the practice room. A spiritual music education is, rather, an experience for teachers and students with the self, with mystery,\textsuperscript{22} and with nature (Shevock 2015). Thomas Berry (1999) suggests, “We have silenced too many of those wonderful voices of the universe that spoke to us of the grand mysteries of existence” (17); and humans, as an integral part of the living environment, can be understood as a way for nature (Mother Earth\textsuperscript{23}) to reflect upon herself.

Deep ecology provides a spiritual philosophy for developing bioregional spirit and ecological consciousness. Devall and Sessions (1985) described \textit{deep ecology} as:

Emerging as a way of developing a new balance and harmony between individuals, communities and all of Nature. It can potentially satisfy our deepest yearnings: faith and trust in our most basic intuitions; courage to take direct action; joyous confidence to dance with the sensuous harmonies discovered through spontaneous, playful intercourse with the rhythms of our bodies, the rhythms of flowing water, changes in the weather and seasons, and the overall processes of life on Earth. (7)

This description of deep ecology seems to demand expression in music education pedagogy. Sheena’s vignette can be modified to be for this spiritual experience, as
teachers and students focus on creative responses and dialogue about the rhythms of human and non-human life.

Devall and Sessions (1985) recommend, relevant to music teachers, that we enact “earth bonding rituals, celebrating specific places” (27). These rituals, according to the authors, purify the location by providing an outlet for our emotions, fears, joys, and focusing our actions. Inspired by deep ecology, after Sheena uses the students’ compositions to facilitate dialogue about global ecological issues, her class might choose to enact an earth bonding ritual at their local park through musical performance for the local community. Such a ritual has the opportunity to help people “recover an integral relation with the universe, the planet Earth, and the North American continent” (Berry 1999, 16). Musical ritual, embedded within a spiritual praxis for music education, can enable people to reconnect to the ecosystem, its seasons, its non-human life, and soil.

**Upton’s Vignette:** Upton teaches middle school (c. 12-14) wind band, which is rehearsing Michael Oare’s *Jefferson Forest Sketches*. Upton has the students study the composition description on the J. W. Pepper website ([http://www.jwpepper.com/10460930.item#.VaMejUt6McI](http://www.jwpepper.com/10460930.item#.VaMejUt6McI)), “This programmatic work depicts the beauty and grandeur of the Jefferson National Forest.” The students are directed to discuss on how or if the music evokes the “seemingly endless expanse of wilderness.” Employing deep ecological questioning (see Clark 2014, 160), Upton asks the students: *What is wilderness? What is a wild animal? Are you a wild animal? What does it mean to be wild vs. domesticated?* The students then are assigned homework, to explore the USDA Forest Service webpage to identify how much of the forest is “wilderness” and how “wilderness” is defined in this context ([http://www.fs.usda.gov/main/gwj/about-forest](http://www.fs.usda.gov/main/gwj/about-forest)). This leads to conversations about the impact of even small groups of people, even without “motorized equipment and mechanical transport,” as well to the health of the eco system without its traditional large predators. *Jefferson Forest Sketches* provides a springboard for deeper understanding of the bioregion leading toward ecological literacy.

**Conclusion**

I begin this conclusion with hope. It is my hope that, in ten years, the vision shared in this paper will seem somewhat antiquated. I hope it inspires music educators to share the eco-literate music work they already do, and further imagine
a future focus on eco-literate music pedagogy. In other words, I hope putting this theory of ecological literacy into practice in music education results in new practice contributing to theory. As such this discussion has provided music teachers with plausible and comprehensible theory in ecological literacy, and deep ecology, and opened possibilities for considering and practicing eco-literate music pedagogy. Music education has the potential to provide meaningful insight into ecological crises facing the world, especially through sonic experience and ritualization (such as Devall & Sessions’s earth bonding rituals) of ecological experiences.

According to Bowman and Frega (2012): “Philosophical inquiry does not so much solve problems as transform them into other problems, problems that are more compelling, more relevant to practice, richer in implication for action” (34-35). Each section of this current paper offered new questions that were rich in implication for action. Further this paper presents a challenge for music education. Ecological literacy requires the development of ecological consciousness; and as, through music and other means, students connect to local spaces and become aware of global issues, the ecological crises can be addressed (Orr 1992). Nature has an inherently musical aspect that can be explored in music classrooms, and, if music education will matter to future generations of humans on our planet, music will need to help us understand the nature of the environmental crises and lead us toward sustainable living:

We need to see the Earth in its sequence of transformations as so many movements in a musical composition. The sequence of events that emerge in time needs to be understood simultaneously, as in music: the earlier notes are gone when the later notes are played, but the musical phrase, indeed the entire symphony, needs to be heard simultaneously … Each new theme alters the meaning of the earlier themes and the entire composition. The opening theme resonates throughout all the later parts of the piece. (Berry 1999, 27)

In response to this paper’s title, as an important possibility, music education can play an essential role in helping humanity develop ecological consciousness.

A Connecting Venture: This paper was guided by the question: What might music education for ecological literacy be like? Music education for ecological literacy
should be a *connecting* venture that has the opportunity to deepen students’ understanding of the environment and of music. It requires music teachers and students enacting an eco-literate praxis by:

1. Connecting to local places.
2. Experiencing music and nature in connected, meaningful, and ethical ways.
3. Developing ecological consciousness by ritualizing and creating music rooted in soil.
4. Connecting to the planet more broadly by connecting local understandings to global ecological crises.

This is the essence of music education cultivating ecological literacy.

At the beginning of the paper a curiosity arose: facing global ecological crises, can music education matter? Illich (1990) tells us, “We are torn from the bonds of soil ... the economy into which we have been absorbed ... transforms people into interchangeable morsels of population, ruled by the laws of scarcity.” For music education to matter, that is, for our field to be truly viable and transformative in an age of ecological crises, it needs to reconnect (sonically, textually, and spiritually) people with the soil.

This current paper has limitations. Because of the broad approach taken to explicating eco-literate music pedagogy, many of the ideas explored need to be more deeply theorized. A deeper exploration of R. Murray Schafer’s *Soundscape* and its implications for eco-literate music pedagogy—specifically in relation to the cultivation of ecological consciousness—is particularly needed. To accomplish this, the valuing system of *The Soundscape* needs to be understood: Is *The Soundscape* for the benefit of humans only? Or does the musicing of birds (such as expressed in Messiaen’s birdsong transcriptions), whales (e.g. Hovhaness’s *And God Created Great Whales*), and canyons (e.g. Grofé’s *Grand Canyon Suite*) have both human and intrinsic (to birds, whales, and canyons) value: do they music for their own purposes?
Deep ecologist, Arne Naess (1996) asks us to challenge our anthropocentric (human centered) value judgments and to realize the intrinsic values of non-human life. He continues, “human economic enterprise in the next centuries may significantly reduce the richness and diversity of life on the planet and thereby also reduce evolutionary potential ... social and political activism are necessary” (1558).

Through the work music thinkers such as Morton (2012) and Abrokwaa (1999), and my exploration of the theories of ecological literacy, ecomusicology, indigenous knowledge, spirituality, and deep ecology, I believe the answer to whether music education can matter is yes!—with a caveat. Our profession as teachers must take the ecological crises seriously, and, consequently should further explore ecological literacy as an ends of meaningful and ecologically relevant music education. Ecomusicological literature suggests that musicians are making music for ecological ends, and David Orr suggests that for ecological literacy to become an effective educational movement it must be integrated throughout all fields in our educational institutions.

Future music education scholarship might also further explore what eco-literate music pedagogy would look like through theorists not discussed in this paper: such as Wendell Berry, Gregory Bateson, or through Bates’s (2011) rural ideals. The ecofeminism of Vendana Shiva has also been influential in educational philosophy, but was not explored here. Wherever music educators are not generally dictated to by the tyranny of standardized tests, music education has the space to be a meaningful place for ecological literacy to take hold in schooling institutions, cultivating in our students ecological consciousness, and enacting change in and for the sake of nature and our future.
References
Mantie, Roger, & Talbot, Brent C. 2015. How can we change our habits if we don’t talk about them? Action, Criticism, and Theory for Music Education. 14(1): 128-153.


I begin this paper with a vignette of an informal ecological music learning experience. I have repeated this experience, with slight variations, many times as, I assume, many parents of 8-month-olds do. Learning is, I believe, an act of experiencing.

David Orr (1992) labels three crises, which are discussed later in this paper.

The phrase “music education” is being used in this paper to describe the educational field, which predominately (but not always) is located in schools, and the field of research and scholarship institutionalized in journals concerning that field. It might also be called formal music schooling, when, actually, music learning may occur anywhere and does not always involve schools or teachers.

A position with which I wholly agree

I contend that one way to understand if music “matters” is within the context of human and ecological “viability.” As Berry (1995) wrote, “we need to provide specific programs leading toward a viable human situation on a viable planet” (12), and; “Education at the human level would be the conscious sensitizing of the human to those profound communications made by the universe about us, by the sun and moon and stars, the clouds and rain, the contours of the earth in all its living forms” (15).

Or as J. Scott Goble (2010) states the question, “What is the societal role or social importance of public school music education in the United States as a postmodern society?” (249). Similar to Goble’s conception, my conception of eco-literate music pedagogy attempts to serve communities, “as important means of psychophysiological and psychosocial equilibration in those communities” (279). While eco-literate music pedagogy has a societal role and importance, eco-literate music pedagogy has the opportunity to also be ecocentric, an idea best explicated by Naess’s (1986/2005) statement, “The flourishing of human and non-human life on Earth has inherent value. The value of non-human life-forms is independent of the usefulness of the non-human world for human purposes” (68). The understandings we (teachers and students) gain about our relationships with each other (about communities of people) can also help us understand how we relate to our environments.

Understood expansively as the natural synchronization of the sounds of non-human life, or as sonorous patterns humans contribute to the natural musical environment

“Ecological consciousness” in this paper is treated in the same way Marx uses the term “class consciousness,” except in that it also aims to recognize the inherent solidarity among human, non-human animals, and plant life on the earth. Literacy implies a broader understanding of ecological concerns than just consciousness, and includes a critical reading of ecological issues at the local, regional, and global levels.

In this paper, pedagogy is understood as the work of a schoolteacher: teaching praxis.
For example, when I taught elementary general music in Pittsburgh, each Earth Day I designed a lesson around gardening, challenging the environmental cost of shipping food from distant places; this lesson began by singing Dave Mallett’s *Garden Song*. The music became the basis for meaningful conversation, and students shared their experiences with backyard, window, and potted gardens.

This part includes the vignettes (metaphorical cases showing the possibility of an eco-literate music pedagogy), the descriptions of music (as interconnected with environment) in ecomusicology, and Music Education as indigenous knowledge. A simple search (in SAGE and JSTOR) of the contents of our primary journals shows this issue has not been thoroughly considered in published music education scholarship.

Coleman’s concept, *silence in nature*, is echoed and innovated in the work of R. Murray Schafer (1977/94), whose *Soundscape* concepts are still relevant to many music educators today. Just as Coleman was concerned with the noise of the city, and recommended finding *silence in nature*, Schafer’s work is concerned with noise, “the sounds we have learned to ignore” (4), which led to an interdisciplinary approach to music education that involved such activities as measuring and recording the sounds of the environment, and studying anti-noise legislation. The current pedagogy of eco-literate music education can be understood as an extension of Coleman’s and Schafer’s work in “clairaudience” (11) beyond its sonic and individual spiritual implications, to holistically understand the impact of people on the environment with the end being to enact societal change.

To answer this question I will provide some philosophical foundation for eco-literate music pedagogy.

Bates describes this as human relationships interconnected to place. In contrast, Morton (2012) uses the phrase *environmental interdependence* to describe a similar concept.

As per its mission statement, TOPICS is intended to be relevant to “music education students, school music, community and private music teachers, and professors largely engaged with preparing undergraduate and master’s level music education students.” I, therefore, view approachability as an important stylistic choice.

Jorgensen (2010) wrote that in music education philosophy, spirituality could be viewed “as a subset of aesthetic experience, a discrete and separate set of virtues from aesthetic or moral virtues, a language expressed musically, or an integrated and heightened state of transcendence and level of consciousness” (107). In this paper, *spirituality* is understood as separate from aesthetic theory and reflects best *an integrated and heightened state of transcendence and level of consciousness*.

In this way, Morton’s writings also connect to this current paper’s section on indigenous knowledge.

She echoes Music Education philosopher Wayne Bowman.

Here “praxis” is understood as teaching “practice” involving reflection and action.
This definition seems to provide an appropriate wall to separate non-spiritual and spiritual activities. Because it deals with yearning, it deals with a person’s intention. Any activity traditionally not conceived (by humans) as a spiritual act, such as walking, musicing, or sexual intercourse, might be understood, by the yearning person, as spiritual if the aim is to be connected with something larger than one’s ego. Examples might include the Buddhist practice of walking meditation, Zen chanting, or Tantric intercourse, but wouldn’t necessarily be limited to those traditions labeled as spiritual or religious.

Thomas Berry describes “mystery” in connection to the complexity of life on earth. “The more a person thinks of the infinite number of interrelated activities that take place here, the more mysterious it all becomes” (13).

Mother Earth is also used in Abrokwaa’s (1999) paper.

About the Author
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