

# PHILOSOPHICAL UNDERPINNINGS OF ENVIRONMENTAL MUSIC

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## ABSTRACT

*The effectiveness of environmental music is explored through the lens of philosophers Gregory Bateson, through his theory of ecology of mind, and Timothy Morton, through his theory of hyperobjects. Bateson's and Morton's philosophies are concerned with how art can be used to communicate our interconnectedness to nature. Their philosophical underpinnings are applied as a framework for evaluating artists' success in communicating this interconnectedness through environmental music. Works by composers Barry Truax, Hildegard Westerkamp, David Dunn, and Leah Barclay are discussed within these frameworks.*

## 1. INTRODUCTION

Music can combat environmental crises through communicating an interconnectedness with nature easy to overlook in our modern society. Various philosophers and composers who have added to the field of ecologically grounded sound have examined ways of understanding this interconnectedness. The philosophers Gregory Bateson and Timothy Morton provide a structure for considering how an artist might show these links with their work. Bateson does so through his concept of ecology of mind, Morton through conceptualizing in hyperobjects. Barry Truax and Hildegard Westerkamp were influential in laying the groundwork for understanding music composition and nature. Composers David Dunn and Leah Barclay have added to the work of Truax and Westerkamp, making combating environmental crises through music their life's work. Though all of these artists approach their work from diverse perspectives and with different techniques, similar ideas run throughout: the idea that sound is a good, maybe the best, means to communicate environmental crises, and that to communicate this requires systems that are interactive and involve the public through technology. They believe change cannot occur through listening to the music alone and that music is the catalyst.

## 2. ECOLOGY OF MIND

Gregory Bateson posited a theory known as ecology of mind that claimed everything in the environment formed a network of relationships that had a mind-like capacity comparable to thought. He regarded all objects as linked

and as one entity. His ecology of mind idea would lead him to his later idea of the sacred and grace, that the total system of the earth is sacred and worth protecting.

Towards the end of Bateson's life he connected his concept of aesthetic beauty in nature and human art with the emerging awareness of ecological issues. He recognized that knowledge of the interconnection of all things could contribute to a lessening of ecological issues. He suspected that producing art would reconnect us to the mesh of living things around us. A further problem he saw was that many of us in our day-to-day lives have lost access to "real beauty," connection to nature and arts for many is non-existent, and this lack of access is a substantial problem confronting the world as it relates to ecological crises.[1]

## 3. HYPEROBJECTS

Environmental philosopher Timothy Morton approached ecological crises from a different perspective. He developed a unique class of thing called hyperobjects, "massively distributed entities that can be thought and computed, but not directly touched or seen." They are "radically outside cognition," and include climate change and species loss. Ecologically based sound art might make hyperobjects more evident.

Hyperobjects include scientific discoveries that cannot be seen in their entirety and are "massively distributed in time and space," such as global warming, nuclear radiation, and tectonic plates. Hyperobjects may be made evident by a more experiential medium than writing.[2]

Hyperobjects relate to the Bateson's ecology of mind because they are reducible to their parts in either theories, they are always connected. Morton continues, "I believe that humans are traumatized by having severed their connections with nonhuman beings, connections that exist deep inside their bodies (in our DNA for instance; fingers aren't exclusively human nor are lungs or cell metabolism)."[3]

Art can make hyperobjects visible by humans, raising our ecological awareness and that of the innumerable interrelationships among life forms and between life and non-life.[2] Morton uses hyperobjects to arrive at a similar conclusion as Bateson, that we interconnect to the environment, ever so much that we can say there is no environment. The more connected to another thing one sees itself as being, the less one understands that thing as an actual separate entity. Morton best describes this idea of a non-environment,

When we look for the environment, what we find are discrete life forms, non-life, and their relationships. But no matter how hard we look,

we shall never find a container in which they all fit, and in particular we shall be incapable of finding an umbrella that unifies them such as world, environment, ecosystem or even, astonishingly, Earth.[2]

Morton refers to the environment as an “open ended mesh” connecting all the things in it, but not separated out into disjointed entities the way we are used to thinking of objects. The term “mesh” is a great descriptor of this object; everything is connected and linked even when we cannot see or know it simultaneously.

#### 4. ENVIRONMENTAL MUSIC

Philosophical underpinnings are essential for any movement where systemic change is the objective. Communication of interconnectedness and ecological awareness cannot occur by theory alone, artists must help to bring these theories into practice.

##### 4.1 David Dunn

Gregory Bateson has a considerable influence on the work of David Dunn, notably the ideas that tie together cybernetics and ecology, granting intelligence to nature. The idea of mind in nature drove Dunn to experiment with works that involve animal communication. He hoped that through the study of these ideas and through his work, society could return to a place that was life-enhancing and that humans could realize their connectedness to nature.

Dunn is interested in “understanding a sound and its context as part of a purposeful, living system with attributes of mind.”[4] Sound and its context is an elemental part of nature, which has aspects of mind as described by Bateson. Dunn, like Morton and Bateson, looks back to indigenous systems of knowledge, which might have useful ways of understanding environmental balance and connection to nature. These systems see humans as an elemental part of the whole.

Dunn determined that to save humanity, we must view ourselves as connected to nature, thus change our relationship to it into one that is “life-enhancing.” When making art that involves environmental subjects it is important to let an audience understand that the work is not just about the abstract idea of “wilderness preservation,” but a necessary step to saving ourselves. We can achieve this though showing we are part of the same body-mind and if one part dies the whole body is sick.[4]

Dunn was also influenced by the deep ecology of Arne Naess who thought entertainment media could provide a surrogate experience of nature as a conservation strategy. Dunn continues with a question that explains the core of his work,

To what extent might the technologies of communication, art and entertainment serve as ‘prostheses’ that would provide us with experiences of wilderness that would not only enrich our human identity but help us to preserve and expand the domain of the non-human world? This question should not be seen as posing a substitute for the direct experience of nature but

rather as a means of bringing a deeper experiential understanding of it into our daily lives.[5]

The word prosthesis here is particularly striking. Merriam-Webster defines prosthesis as an artificial device to replace or augment a missing or impaired part of the body. Dunn claims that as humans our loss of perceived connectedness to nature is like a trauma or disease and that art can be a replacement for that loss, though not the only solution.

One practical issue is that our National Park system is not large enough to sustain every person’s to have a direct experience of nature—it would do more harm than good to the environment. The only solution to this problem is to find a prosthesis to augment this necessary experience of nature.[5]

Dunn proposes an institution for experiencing connectedness that has the informative power of the museum, but the engagement potentials of a theme park or other popular media. To influence people you must find ways of getting into their everyday lives. Dunn suggests “places within the urban environment.” For example, the Internet can be this democratizing force that people need to access ecological art.

##### 4.2 Barry Truax

An important precursor to today’s more interactive ecological sound work is “soundscape composition” as developed by Barry Truax and Hildegard Westerkamp at Simon Fraser University. According to Truax, a soundscape composition must meet the following criteria:

- (a) listener recognizability of the source material is maintained, even if it subsequently undergoes transformation;
- (b) the listener’s knowledge of the environmental and psychological context of the soundscape material is invoked and encouraged to complete the network of meanings ascribed to the music;
- (c) the composer’s knowledge of the environmental and psychological context of the soundscape material is allowed to influence the shape of the composition at every level, and ultimately the composition is inseparable from some or all of those aspects of reality; and ideally,
- (d) the work enhances our understanding of the world, and its influence carries over into everyday perceptual habits.[6]

It is important that listeners recognize the source material and that they bring their earlier knowledge of that material with them to complete their realization of the work. While he does not mention ecological activism, he also does not leave it out. Truax wishes to change the way you perceive the world from day-to-day by revealing something with his music that has not been heard before, a new idea or connection.

##### 4.3 Hildegard Westerkamp

Hildegard Westerkamp, also a soundscape composer, regarded sound as the best way to understand ecological crises.

Westerkamp claims that artists who work with sound are the best equipped to consider issues of the acoustic environment. She uses the term “listening awareness” to identify how soundscape compositions can make us more aware of the actual environment.

We increase listening awareness of the environment through conscious listening. Her idea of conscious listening reflects Dunn’s idea of using the methods of popular media to reach an audience. Would art that “creates a clearer sense of place and belonging”[7] have the same impact as one that seeks to connect humans to nature?

Westerkamp also tries to answer the question, can soundscape composition influence ecological change? The exchange between composer and audience creates an energy for change because the composition is connected to acoustic ecology. The soundscape composer can make the environmental issues of the world audible to the audience.[7]

#### 4.4 Leah Barclay

Artist Leah Barclay’s work employs many of the same concepts as Dunn, but with more modern technology. She is interested in the potential for sound to generate an awareness of ecological issues. She believes electroacoustic music has this ability because of its adoption of natural sounds and its capacity to uncover the realities of the world. Barclay hopes that sound cannot simply raise awareness of ecological issues, but “create a behavioral shift in deeply ingrained unsustainable ways of thinking.”[8]

Electroacoustic music can be used to “ignite an awareness and connection to the environment.”[8] Not only can music comment on these issues, but it can create a shift in behavior of audiences to a more sustainable, life-enhancing way of thinking. To create this shift in behavior, Barclay developed the Sonic Ecologies Framework. It uses site-specific music with community engagement to reach its goals.

Barclay, like Dunn, realized that any study of interconnectedness is incomplete without a study of indigenous cultures, who may have many of the answers we are seeking. Dunn seeks an older way of understanding environmental equilibrium: “seeing ourselves as an intrinsic part of larger systems.”[4] Barclay also realizes that because the understanding of connectedness to nature is still very much a part of indigenous cultures, it is not something she needed to reinvent, it is something she could study and learn from.

Barclay cites Bateson’s ecology of mind theory as evidence for our connection to nature. As she says, “the patterns of mind (consciousness) and the patterns of matter are reflections of one another and part of an unbroken dynamic whole, suggesting that the body, the space, and the resulting sense of place are inseparable.” She does not state this as her only reason for ecological composition, but it explains how listening to the acoustic signature of a place can increase one’s connection to it through revealing something thought not to be present.

Besides indigenous thought and the ideas of Bateson, Barclay is also influenced by Bernie Krause’s writing on acoustic ecology. She uses his ideas of biophony, geophony and anthrophony to help to tell the story of a place. Krause uses these terms to explore the “rich and dynamic interplay between natural, cultural and industrial presence on

any site.”

Barclay states that listening deeply to a soundscape increases one’s ability to be present in it, and shows that places sometimes thought to be silent and barren are just too quiet for us to hear, and are teeming with life. Her work seeks to transmit the “sonic signature” of the environment to the listener to induce a deep response.[9]

Barclay developed the Sonic Ecologies Framework as a method to enact her philosophical ideas of sound to change and promote environmental awareness. The framework states that the project must be site-specific and relate to the community it is created within so that it will have a higher probability of success. Barclay believes that music of a place is less abstract and will resonate more deeply with audiences.

Engagement and collaboration with a community is a critical part of Barclay’s process. The community can influence the work through their knowledge of place and learn from the work by seeing it in a new way. Further, the work must seek to exist in multiple modalities. Having a work appear in multiple places, virtual and real, increases its accessibility and effectiveness.

The reason for collaborations with community and striving for multi-modal presentation is to expand the reach of electroacoustic music beyond the academic concert hall. One cannot hope to increase awareness of connectedness to only those who can afford to attend college. The aim is to be interdisciplinary and collaborate with non-artist experts such as environmentalists, conservationists, scientists and policy makers.[8] These steps will raise exposure and accessibility.

An example of the Sonic Ecologies Framework is Barclay’s *River Listening*, a “practice-led interdisciplinary collaboration of freshwater biodiversity, virtual technologies, soundscape ecology and environmental sound art to explore methods of hydrophonic recording, soundscape analysis and virtual dissemination.”[10]

Barclay conducted the practice-led component of *River Listening* during the Synapse Residency; this involved field labs in which Barclay recorded three rivers with hydrophones and experimented with sound processing techniques. She then made the recordings available online. Recording sessions were accompanied by community workshops, fulfilling the Sonic Ecologies Framework goals of community engagement. The goal of the project was to find new ways of understanding scientific data by filtering it through an artistic perspective.

An additional goal of the *River Listening* project was to bring attention to rivers as parts of the environment that need conservation. In addition, Barclay involves multiple modes of artistic presentation, including field recording, soundscape analysis and web-based dissemination. This enhances the community engagement aspect of the framework by allowing the learning process to endure after the artist has left a community. Barclay concedes that a music composition alone cannot influence environmental crises, but in combination with community engagement and multiple modes of presentation she believes that change is possible.

## 5. CONCLUSION

By studying the writing of philosophers and the work of composers, we learn that music can combat environmental crises through communicating an interconnectedness with nature. Modern life hides this connectedness from easy perceptibility, but music can bring it back into visibility. For music to accomplish this it is necessary for people to gain a wider appreciation of what forms music can embody, and this will take time. To advance this idea, artists can strive to create more inclusive, interactive art that seeks to engage non-artists and academics from a multiplicity of disciplines.

## 6. REFERENCES

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