

Sonic Ecologies: Exploring the Agency of Soundscapes in Ecological Crisis

By Leah Barclay

Introduction

In John Cage's pivotal 1937 talk titled "The Future of Music: Credo," he said, "I believe that the use of noise to make music will continue and increase until we reach a music produced through the aid of electrical instruments which will make available for musical purposes any and all sounds that can be heard" (Cage 1937, 3). In 2013, Cage's visionary genius is clearly evident with a musical world of infinite possibilities aided by technology. The dramatic advancement of technology has truly cultivated a paradigm shift in how artists interact in both physical and virtual worlds. These changes have evolved and expanded our tools of expression but most importantly they have opened the ability to communicate at a higher level in an interdisciplinary context.

In a recent edition of "Musicworks," Joel Chadabe stated that the current artistic practices of electroacoustic composers are rooted in the idea that new technologies, unlike traditional musical instruments, can produce sounds used to communicate core messages, including information about the state of our environment. He claims that we are all participating in the emergence of a new type of music accessible to anyone, which can be used to communicate ideas that relate more closely to life than those communicated through traditional musical forms. He believes we need to think of ourselves as "leaders in a magnificent revolution rather than the defenders of an isolated and besieged avant-garde" (Chadabe 2011).

A Shift in Consciousness

Imagine the potential for sound in generating a shift in consciousness in a way that might provoke critical awareness for world issues, such as climate change. For instance, American environmentalist/author William Ernest "Bill" McKibben (2011) recently said, "When art both of great worth, and in great quantities, begins to cluster around an issue, it means that civilization has identified it finally as a threat." He views artists as the antibodies of the cultural bloodstream and fundamental to social change. As this social movement of creative thinking expands internationally one might be reminded of Jacques Attali's seminal 1985 text where he refers to music as not just simply a reflection of culture but a "harbinger of change."

He states, "For twenty-five centuries, western knowledge has tried to look upon the world. It has failed to understand that the world is not for the beholding. It is for hearing. It is not legible, but audible" (Attali 1985, 3). One might consider this both a challenge and an unprecedented opportunity for composers to gain a critical understanding of the global discourse needed in devising new processes for a sustainable future. Electroacoustic music, with the use of natural sounds, has a profound opportunity to ignite an awareness and connection to the environment. But is the role of the artist purely to comment on crisis? To create awareness of issues? Or can provocation extend beyond expression to create a behavioral shift in deeply engrained unsustainable ways of thinking?

My recent research has deeply explored these questions and resulted in the development of a multi-platform methodology that could provide a framework to facilitate cultural change through sound. The core of this methodology centers on a site-specific electroacoustic music project embedded in a multi-layered community-cultural engagement process developed in response to the community under study at a particular time. The framework, titled *Sonic Ecologies*, involves five stages that I will introduce through "case" studies that exemplify key aspects relevant to the development of this model. These cases, as individual projects and as a whole, ultimately serve as a catalyst and represent an unparalleled opportunity for observing artists as agents of change in environmental urgency. While aspects of the *Sonic Ecologies* framework might appear evident and simplistic, it is grounded in significant research resulting from my doctoral work. My practice-led research involved conceiving and delivering seven original electroacoustic projects for dissemination in multi-platform environments. The divergent projects were created in cultural immersion, spanning from ambitious sonic explorations in the center of the Amazon Jungle to sounding the rivers of the world through India, Korea, China, Australia and New Zealand. The delivery and dissemination of each project was underpinned by a rich methodology that pivots on the site-specific project embedded in community cultural engagement.

The concept of cultural immersion challenges the traditional notion of an isolated composer apart from community and is potentially, if not profoundly, influential on his or her sense of validity within the larger multi-dimensional context of practice. It is no longer about notes on a page, beyond that dotted bar line that finishes the project, but rather opens an entire spectrum of compositional decisions in a constantly evolving process that seemingly responds naturally, to only expand. The results of such richness and diversity can be attributed to working directly with communities and experiencing creative inspiration in cultural immersion.

During these projects, it became evident that the environmental interconnectedness many of us have been seeking is still prevalent in these first nation cultures. This was evident when working with communities in the Amazon Rainforest, who were intuitively tuned to the patterns of the local ecosystems. It was also clear when working with Australian Indigenous artist Lyndon Davis and New Zealand artist Jo Tito who taught me about listening to the environment and their perceptions of environmental interconnection. The process of simply listening to the environment can completely shift our perception. In fact, these collaborative processes transformed my approach to listening and undeniably influenced my creative responses to the environment. My research began as an exploration of the sustainability of electroacoustic music and evolved into a complex web of projects harnessing electroacoustic music as a change agent. The beginning was fueled by an isolated intention,

grounded in a visually dominant western society. Yet through the process of cultural immersion I discovered a tool that not only provides a gratified language of creative expression, but also a voice for the communities and environments collaborating on these projects. The discoveries and observations from each individual project showed a clear trajectory towards a set of tools to initiate cultural changes through environmental electroacoustic music. As a result, the Sonic Ecologies Framework was developed as a means to create an accessible methodology for artists interested in implementing similar projects.

Sonic Ecologies Framework

The following provides a brief overview of the five essential elements of the Sonic Ecologies Framework: (1) site-specific subject matter, (2) multi-platform dissemination, (3) community education and engagement tools, (4) interdisciplinary partnerships and collaborations, and (5) long-term strategic vision. The core of this methodology revolves around a site-specific electroacoustic music project embedded in a multi-layered cultural engagement process developed in response to specific communities. The site specificity requires that this methodology be intrinsically flexible in order to be adaptable within a diversity of environments and communities. It is in essence a practice-led creative research process, taking an ecological approach to contextualising a project within an environment. While there is an essential degree of freedom and adaptability, the process is grounded within the theoretical contexts generated by the artists who experiment and innovate within a continual spiraling between theory and practice.

1. Site-specific Subject Matter

In the context of this process, the site-specific nature of the electroacoustic music project is essential. It must be pertinent to the community and grounded within a comprehensive understanding of the proposed thematic content. The sound work of Douglas Quin in Antarctica and Francisco Lopez in the Central Amazon Jungle are obvious examples. Blue Gold, by Australian composer Ros Bandt, also provides a pertinent example in this context. Blue Gold is a performance installation investigating the delicate balance between wet and dry in our natural landscape (Bandt 2012). While it has been performed in a diversity of contexts, the site-specific realisation over Lake Cootharaba in Australia's UNESCO Noosa Biosphere at Floating Land Festival in 2011 provided a platform for the local community to truly engage in the thematic of the work. As part of the site-specific performance, Bandt participated in a dynamic ten-day program of community workshops, sound walks, forums and interactive labs designed to confront and challenge a spectrum of water issues across disciplines. Blue Gold became a vehicle for these conversations, ideas and actions that rippled throughout the community, a community that was changed by this process as evident in their actions and enthusiastic preparations for future soundscape projects. Floating Land demonstrates how successful arts and culture can draw community together and inspire sustainable activities. The local community now actively conserves water and works together to develop collaborative projects for this event. Floating Land was recently recognised as a national model in Australia's new Cultural Policy. The Council regards the role of local government to be one of fostering a creative and sustainable environment. Its vision is to become Australia's best region for creativity and sustainability through the development of special strategies on green art, biodiversity and climate change.

2. Multi-platform Dissemination

The Sonic Ecologies framework encourages collaboration between artists and communities and multiple outcomes where

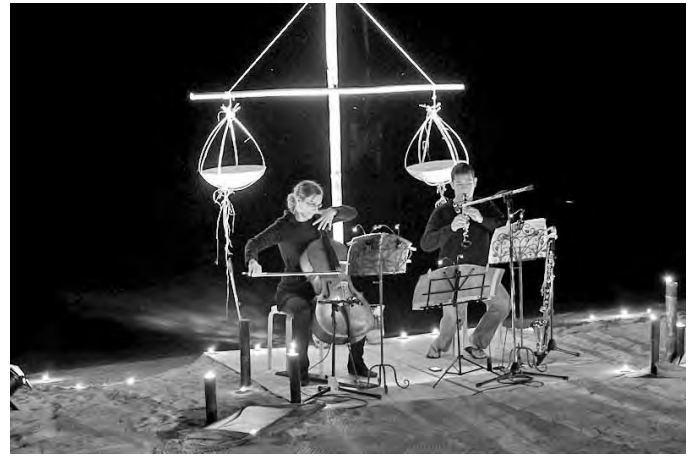


Fig.1: *Blue Gold* performance at Floating Land 2011. Photo by Wild Honey Photography

possible. While one core creative outcome is most likely the central intention, the adaptability of the project for a range of environments is essential. The sonic outcomes should be disseminated in a range of environments for maximum exposure; this includes harnessing the power of virtual platforms to facilitate global accessibility. This is exemplified in the EcoSonus project commissioned for Floating Land 2009, a multi-channel sound installation with regional site-specific performances, collaborative community compositions and an interactive website streaming field recordings and alternative compositions.



Fig.2: Leah Barclay field recording in the Noosa Biosphere Reserve for *Eco Sonus*. Photo by Adam Sebastian West

3. Community Engagement and Education Tools

There is undeniably a strong movement associated with environmental sound art emerging internationally. This is evident through the establishment of organisations such as Ear to the Earth, the environmental program of the Electronic Music Foundation. Numerous cultural critics perceive the industrialized world as a visually dominant society and recommend education to ignite the auditory perception. If a particular community is to engage and comprehend the value of a "sound" project, they must gain a deeper understanding of their sonic environment and play a role in the process. Community engagement and education tools will always evolve depending on the nature and accessibility of the proposed community but the standard suggestions include activities, such as community sound walks, participatory field recording sessions, capacity building workshops and providing access to the appropriate technology for the community to remain engaged in the process. This research has also identified the necessity of engaging the younger generation in participatory soundscape experiences. As the future



Fig.3: *Sonic Explorers workshops at Treeline Festival 2012*. Photo by Wild Honey Photography

citizens or inhabitants, it is this generation who will experience the true ramifications of climate change. The Sonic Explorers project, commissioned for TreeLine 2012 in Australia, involved workshops, collaborative compositions, sound mapping and performances all aimed towards connecting young people to the environment through sound (www.sonicexplorers.org).

Sonic Babylon, the creation of New York-based artists Nora Farrell and the late Bill Duckworth, is a prime example of innovative community engagement through sound. Riding local Wi-Fi networks, the Sonic Babylon sound gardens grow with music, sounds, and stories accessible on mobile devices in selected spaces within a community. This first sound gardens planted in Australia included historic recordings, local musicians, indigenous stories and sound marks of the communities. The sound garden is interactive and can be both heard and manipulated by the community. As visitors move through the garden, the Sonic Babylon application tracks their position in the space and the 3D audio engine generates a real-time sound mix relative to the location of the planted sounds (www.sonicbabylon.com). Sound gardens have a diversity of positive outcomes for a community including the ability to repurpose existing digital content (such as oral history) and also the

ability to observe a system, a virtual ecology, and hear what kind of voices and themes may arise. The key attraction is its accessibility and versatility, and its ability to grow within a community over time. In the context of Sonic Ecologies it can function as both the core creative work and the ongoing community engagement. The majority of the initial sound materials planted in the Sonic Babylon case study for this research were historic recordings, particularly revolving around the indigenous history of the region. It was extremely rewarding to see young people interacting with Sonic Babylon and gaining insight into the indigenous history of the area, particularly considering these soundscapes are not traditionally accessible to the community.

4. Interdisciplinary Partnerships and Collaborations

In order to truly attempt to create a paradigm shift with Sonic Ecologies, electroacoustic music must be augmented from its traditionally isolated academic circles and expand into regional communities collaborating with environmentalists, conservationists, scientists and policy makers to expand awareness. Creating a support network around the project will be essential in its future



Fig.4: Ilka Nelson field recording for Biosphere Soundscapes.
Photo by Jemma Darlington

viability and sustainability within a community. The Biosphere Soundscapes project was conceived and designed within the Sonic Ecologies framework, particularly focusing on interdisciplinary partnerships. Biosphere Soundscapes is a project designed to inspire communities across the world to listen to the environment and re-imagine the potential of Biosphere Reserves as learning laboratories for a sustainable future. The project connects and inspires the communities of global Biosphere Reserves through emergent technologies, innovative creative practice and soundscape ecology (www.biospheresoundscapes.org). It is underpinned by the creative possibilities of soundscape ecology, a rapidly evolving field of biology used to record environmental patterns and changes. It is also the first major sound project for the UNESCO World Network of Biosphere Reserves, which is comprised of 610 sites in 117 countries. This project is ultimately acting as the catalyst for a global participatory environmental project accessible to anyone with an internet connection. Biosphere Soundscapes was launched on World Listening Day 2012 in Australia's Noosa Biosphere Reserve with a community field-recording lab and a public forum of international sound artists discussing recent projects and practices. The project is currently expanding in ten international Biosphere Reserves across five continents, with the hope that it will be actively mapping the changing soundscapes of thirty Biosphere Reserves within the next six years. Partnerships and collaborations with a spectrum of international organisations from the creative, environmental and scientific sectors will be essential to its impact and future success.

5. Long-term Strategic Vision

The artist implementing the Sonic Ecologies framework is initiating a process within a community. The creative outcomes serve as significant milestones but ultimately it is the process that will continue to resonate and evolve over time. As with any form of community engagement, Sonic Ecologies requires time in order to facilitate change. The capacity building community engagement is designed to empower the community to continue working long after the artist has departed. It is therefore essential the artist invests critical thought into the methods in which the community will continue to

engage as well as the appropriate technology for the project to remain accessible and functional. The most obvious strategy is to entrust low cost digital recorders with a key stakeholder in the community and design a web platform to enable the locals to continue creating and uploading content. It should also go without saying, plans to return to the community should be instigated by the artist, whether this be a concert of future creative outcomes, workshops or simply visiting the key collaborators to maintain relationships and energy in the process. The Sonic Ecologies Framework is not a complex idea; it is simple, based on logic and grounded in significant practice-led research outcomes. As a result, it is accessible for artists interested in implementing similar projects on a local and global scale.

While I will continue facilitating projects through this process, it is also hoped the wider sound community will grasp the potential of delivering work with similar ideas. Now, more than ever before there is a critical need to listen to our environment and generate a paradigm shift that engages our auditory perception. Sound, as a creative medium, is undoubtedly one of the most powerful means to stimulate this shift in consciousness. Electroacoustic music, with the use of natural sounds exposing the state of the world, could be an unprecedented tool for artists taking action to garner awareness of ecological crisis. This research is ultimately underpinned by the realisation that artists can play a role in creating a sustainable future, and as proposed by Joel Chadabe, who reminds us to think of ourselves as "leaders in a magnificent revolution" (Chadabe 2011).

About the Author

LEAH BARCLAY is an Australian composer, sound artist and curator working internationally. She has been the recipient of numerous awards and has directed and curated intercultural projects across Australia, India and Korea. She is passionate about the role interdisciplinary art can play in community empowerment, social activism and cultural change. Contact her at info@leahbarclay.com/www.leahbarclay.com

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