"A Place for Everything, and Everything in its Place"— The (Ab)uses of Music Ecology

BRENT KEOGH and IAN COLLINSON

Abstract: Since the 1950s, the biological term ecology has been imported and applied to a wide range of human cultural practices, environments, and contexts. The ecology trope has found a resonance within the academy, and has long been used across the social sciences, to contextualize aspects of human social and cultural life. This paper examines the application of ecology and ecological concepts to our apprehension and understanding of music, an application that may be traced back almost 50 years. Here we discuss a number of issues regarding the appropriation of ecological principles to articulate and explain human musical activity. In this paper, we critically assess the ramifications of framing the relationship between people, their music, and their world, in ecological terms.

Résumé : Le terme « écologie », qui relevait dans les années 1950 de la biologie, a été importé et appliqué à un grand éventail de pratiques culturelles, d'environnements et de contextes humains. Ce trope a eu un fort retentissement dans le monde universitaire et il s'utilise depuis longtemps dans les sciences sociales pour contextualiser certains aspects de la vie sociale et culturelle. Cet article examine l'application de l'écologie et de concepts écologiques à notre façon d'appréhender et de comprendre la musique, application que l'on peut faire remonter à près de cinquante ans. Nous discutons ici d'un certain nombre de questions relatives à l'appropriation de principes écologiques pour articuler et expliquer l'activité musicale humaine. Dans cet article, nous évaluons de manière critique les ramifications qu'implique le fait d'envisager la relation entre les gens, leur musique et leur monde en termes écologiques.

Ecology has been used across the humanities and social sciences to contextualize aspects of social and cultural life since the mid-20th century. For example, we have seen: "Psychological Ecology" (Barker 1954); "Cultural Ecology" (Steward 1955); "Ecology of Mind" (Bateson 1972); "Media Ecology" (Nystrom 1973); "Urban Ecology" (Berry 1977); "Behavioural Ecology" (Krebs 1982); "Information Ecology" (Davenport 1997); and the "Ecology of Written Languages" (Barton 2007) among others. Early interest in the application of the ecology metaphor for understanding

aspects of human culture can be detected in the fifth edition of Eugene Odum's seminal book, *The Fundamentals of Ecology*. He writes that ecology, though it has emerged from biology, is a new, "integrative discipline," that provides a bridge between the social sciences and the natural sciences (Odum 1971: 4; see also Allen 2011: 416). Allusions to ecology in musical terms have been expressed for at least 50 years. William K. Archer's "On the Ecology of Music," published in 1964, is perhaps the first instance in which music is framed in ecological terms. Since Archer, this yoking of ecology and music has been expressed in various formulations (Keogh 2013), and has gained a high degree of intellectual momentum in recent years (see Schippers 2015; Titon 2015).

　　Recent research interest in the connection between music and nature might be best placed within a more general "greening of the humanities" (Parini 1995). The emergence of the environmental humanities has allowed researchers to respond to "the environmental challenges of our time" (Bird Rose et al. 2012: 1). The shift towards the natural world has been felt in the field of ethnomusicology as well, where associating one's work with the environment has helped to revitalize the discipline in the wake of postcolonial criticism (Rice 2014: 191).[1] The "greening of the humanities" offers one possible path back to broader social and cultural relevance that was lost as a result of the postmodern turn of the 1980s: a turn which saw the humanities undermined and destabilized by the relentless questioning of the universalism, teleology, and utopia that had been crucial to modernist formulations of the world (Hebdige 1988). So whereas postmodernism was antagonistic towards "the generalizing aspirations" of Enlightenment thinking and other forms of western philosophy (Hebdige 1988: 186), ecological discourses often appeal to such generalizations and totalities. Likewise, if postmodernism displayed a skepticism towards teleological understandings and the "doctrine of productive causality" (Hebdige 1988: 190), ecological discourse draws frequently on some brand of teleology. Moreover, if postmodernism's skepticism towards teleology resulted in its "anti-utopian impulse" (Hebdige 1988: 196), then ecological discourse is, in contrast, often utopian. Totalizing, teleological, and utopian thinking can be seen in such environmentalist slogans as "think globally, act locally," the increasingly "grand narrative" of climate change, and debates about sustainability. Ecological discourse therefore might be framed as a recuperation, and an urgent recuperation at that, of such universalist, teleological, and utopian—in short "modernist"—attitudes, albeit with a different purpose in mind. Such recuperation may restore to the humanities a sense of "real world" relevance that it allegedly lacks, according to the ideologies of an increasingly vocational political economy of education.

In this article, we critically assess one of many such approaches: music ecology. After first clarifying the meaning of the term music ecology, we identify and examine some of the conceptual, ethical, and political problems of adopting music ecology for the purposes of conceiving, studying, and organizing human musical activity.

Defining Music Ecology

One of the difficulties in approaching this topic is the great amount of variety that exists between the actual terms connecting music and ecology, and their significations. Another difficulty is the great diversity in scholarly approaches to this field of enquiry. It is not surprising to read definitions of the field that are as broad in scope as the American Musicological Society's definition of ecomusicology, where the term refers to "the study of music, culture and nature in all the complexities of those terms" (Allen 2013). In some instances, these terms are simply used to signify a context for music; music ecology or ecomusicology could thus substitute for other theoretical concepts such as environment, economy, network, space/place, or field. Simon Frith et al., for example, use music ecology in this manner when they suggest that local self-promotion by artists is a necessary aspect of a "live music ecology" (Frith et al. 2010: 3). These two terms are also used to describe the confluence of music and ecocriticism; here there is an effort to variously de-centre anthropocentrism and anthropocentric understandings of music and music production, as well as link music, in different ways, to environmental concerns. Examples of such an approach include Robyn Ryan's (2013) "Didgeri-doos and Didgeri-don'ts: Confronting Sustainability Issues," where Ryan connects Digeridoo music, cultural tourism, and deforestation, and David Ingram's *The Jukebox in the Garden: Ecocriticism and American Popular Music Since 1960* (2010), which traces, over 50 years, the relationship between popular music and environmentalist politics (see also Pedelty 2012: 10; Allen 2011: 419). Such an approach is often labelled, although not unproblematically, ecomusicology. In some cases, there is a distinction between music ecology and ecomusicology, however, these terms are often, it seems, used uncritically as synonyms. For example, Maria Anna Harley's "attempts to contextualize music as sound and relate musical sound-material to other sonic realities, both natural … and technologically created," are, if we follow the author, to be understood under "the rubric of music ecology or eco-musicology" (Harley 1996).

While scholars such as Harley have used music ecology and ecomusicology synonymously, for the purposes of clarity, we argue that these two terms should

be distinguished from each other. Here, we will use ecomusicology to describe a certain political consciousness connected to ecocritical approaches to the study of music and sound (see Dawe 2016; Allen 2011: 415; Pedelty 2012), whereas we will use music ecology to describe methodological approaches that suggest music behaves like nature, or that the production, consumption, and distribution of music is best understood through reference to the natural environment.

In this paper, we are particularly interested in this latter formulation of music ecology, whereby music is compared with, and seen as analogous to, ecosystem and ecology models seemingly borrowed from the biological and environmental sciences. More specifically we examine music ecology from three perspectives. First, we will examine the definitions of ecology and ecosystems that are evident in music ecology; definitions of such concepts play a vital role in the operation and efficacy of music ecology as metaphor and/or model. Secondly, we look at the consequences of such ecological understanding in the ethical debates about music. Thirdly and finally, we discuss the implications of an ecological model in the cultural-political analysis of musical forms.

Music, Ecology, and Ecosystems

The definition of ecology and ecosystem is crucial to an understanding of music ecology. Ecology is generally defined as "the study of organisms in relation to the surroundings in which they live" (Chapman and Reiss 1999: 2). Ecosystems are the spatial and historical products of these relationships. Both terms, ecology and ecosystem, have, however, been subject to much theoretical debate and historical revision since their inception; debates and revisions not always recognized in music ecology's appropriations of the concept, or in other non-scientific uses of the term.

It may be helpful at this point to distinguish between ecology as a particular perspective, ideology, or belief, and the actual scientific practices associated with this term. Phillips has helpfully discussed the dangers that arise when ecology as a "point of view" is confused with ecology as a science (2003: 42). He argues that the values on which ecology (as a point of view) are based—namely those of harmony, unity, balance, and even economy—have been largely discredited by science (42). In *The Truth of Ecology*, Phillips provides an historical genealogy of the transforming conceptions of ecology; he begins with A.G. Tansley, who first proposed the idea of an ecosystem, and argued that the ecology analogy was creating bias in the interpretation

of scientific data (Phillips 2003: 62). He continues to detail the evolution of ecology through ecologists such as Lindeman and Odum, the latter of whom extended ecological thinking into the realm of the social on issues such as overpopulation and social engineering, and posited that the ecosystem model could provide a basis for an all-encompassing worldview (Phillips 2003: 62-63). The totalizing language of Odum can be detected in his definition of ecology when he writes: "ecology is the study of 'life at home' with emphasis on 'the totality or pattern of relations between organisms and their environment'" (Odum 1971: 2). Phillips ultimately critiques this tendency towards a holistic understanding of an ecosystem, arguing that the sheer number of moving parts make it difficult, if not impossible, to establish the ecosystem as a systemically coherent concept (Phillips 2003: 66). He writes:

> Much of the theoretical confusion of early ecology may have stemmed from an over-reliance on analogical reasoning, but it also had its source in holism. Ecologists embraced holism in reaction to the virulent strains of reductionism that, as they saw it, were infecting science, but holism was a poor alternative to reductionism in at least two respects. Methodologically, it was a muddle; philosophically, it derived from dubious sources. (Phillips 2003: 60)

In adopting the language of ecology, some music scholars have embraced the utopian and holistic ideals of ecologists like Odum, and in doing so may have exposed themselves to the same methodological and philosophical problems. For example, Grant employs the language of a holistic ecology in the following way:

> Inasmuch as these constituent parts of a cultural "ecosystem" interrelate with each other and with the whole, they are analogous with biological ecosystems … an even deeper repercussion of the interconnectedness of the various forms of intangible cultural heritage is that the endangerment of one form has the potential to jeopardise the vitality of another (as in biological ecosystems). (Grant 2012: 5)

The tendency to frame music's relation to the environment in totalizing terms can be also been seen in the work of Allen (2011: 414), who identifies the current environmental crisis as a "failure of holistic problem solving." Similarly, Anthony Seeger has applied a particular understanding of ecology

and ecosystems to argue for the safeguarding of intangible cultural heritage and the world's diverse music cultures. His version of ecology focuses on, and is predicated upon, the belief that one can understand the causal relationships of elements within an ecosystem:

> As in any ecosystem, various sorts of things are going on and they have an effect on other parts of it … And therefore, things have an effect on the music that people have been doing, some of them from inside the system—some of them from composers trying different things—and some of them from outside. They may be technological, as in the invention of a recording device, or the invention of the internet … And so there's an ecosystem of music with different things operating within it that influence sounds, and if you want to understand why a certain sound is being performed by a Brazilian group like this, you would do well to think of it as part of a larger system of forces and institutions and inventions. (Seeger 2013)

Seeger adds with hesitation that as diversity in a gene pool is good for genetics, perhaps the same is true for the world's musical diversity (Seeger 2013). Similarly, Titon and Slobin's application of ecosystem to music cultures expressed an understanding of ecosystems as causal and governed by dynamic equilibrium:

> Although each [music] world may seem strange at first all are organized, purposeful, and coherent. Each world [of music] can be regarded as an ecological system with the forces that combine to make up the music culture (ideas, social organization, repertories, movement) in a dynamic equilibrium. A change in any part of the ecosystem affects the whole of it. (Titon and Slobin 1992: 9)

While Titon has modified his use of the term "equilibrium" and his views on the relationship between music and the natural world,[2] and although he has recently argued for a more nuanced view of "nature" in ethnomusicological studies, he still relies on a holistic understanding of ecology. Interconnectedness and interdependence has replaced dynamic equilibrium in this relational epistemology. In a recent paper, Titon writes:

> I will suggest how a holistic relational epistemology of inter-connectedness, based in ecology and fundamentally different from

that arising from scientific reductionism and economic rationality,
offers an epistemological pathway to a more sustainable concept
of nature, music and the environment. (Titon 2013: 9)

However, ethnomusicologist Pedelty doubts our ability to see ecosystems in
the holistic way that Titon suggests; the epistemological limitations of human
observations are too great (2012: 203). Moreover, "the cultural ecology of
music is too complex to understand or explain through systems flow charts or
the logic of cause and effect. It is an act of faith" (Pedelty 2012: 202).

If ecosystems in the natural world did, in fact, gravitate towards
equilibrium, and if it were possible for human observers to understand them
in their totalities, then perhaps we could draw comparisons between the
ecological realm and the cultural. Perhaps it would be possible to articulate
and express those causal relationships in a similar way to those observed by
scientists in the natural world. For example, when John Luther Adams, in his
In Search of An Ecology of Music (n.d.), urges us to use music to "reintegrate our
fragmented consciousness and learn to live in harmony with larger patterns
of life on earth," he assumes that the "larger patterns of life on earth" are
harmonious ones. Music ecology has thus had a tendency to deploy a "residual"
understanding of ecology, where "residual" is used to describe elements—
"experiences, meanings and values"—that are understood "on the basis of
the residue … of some previous social and cultural institution or formation"
(Williams 1977: 122). Any understanding that identifies ecology "with such
values as balance, harmony, unity, purity, health and economy" (Phillips 2003:
42) is a residual one. This residual understanding of ecology is closely aligned
with "pastoral ecology," an understanding of ecosystems that was discredited
in scientific circles as long ago as the 1940s (Garrard 2004: 57). According
to pastoral ecology, the natural world is "a stable, enduring counterpoint to
the disruptive energy and change of human societies" (Garrard 2004: 56).
While Bruno Latour may suggest that the ecological thinking registered in
"words such as symbiosis, harmony, agreement, accord," all "smack of an
earlier, less benighted time" (2014a: 5), such pastoral ecology "continues
to shape environmental discourse" (Garrard 2004: 57), including music
ecology. If ecosystems are not governed by "dynamic equilibrium," and if our
understanding of the complexities of those causal relationships is partial, our
conception of music ecology is dramatically altered. Indeed, it is possible
to theorize musical cultures as ecosystems without invoking the notion of
"dynamic equilibrium" at all. However, if ecosystems are not driven by dynamic
equilibrium, but rather the competitive struggle over scarce resources, and if
they are, therefore, marked by constant flux even though, from the position of

the human observer, some elements within it may appear stable, then music ecology could no longer invoke harmony or stability. One consequence of rejecting this "dynamic equilibrium" and the "balance of nature" is that the natural world cannot offer a utopian model for music-making and human-nature relationships, a utopian position that creeps into some uses of the term "music ecology."

Music, Ecology, and Ethics

The claims of music ecology, that music behaves like nature, or that music can be understood via ecological analogies, have ramifications for thinking about and acting ethically towards music production and consumption. Where scholars may have previously framed their ethical concerns with reference to the political economy and/or the anthropological and pluralist expressions of the value of all human cultural forms, increasingly they are looking to the biological and environmental sciences to ground their ethical agenda. Music ecology, however, raises several issues that call into question the derivation of ethics from natural processes. To what extent can Socrates' question: "what ought we to do?" be answered from observation of the natural world? That we think we can reference nature in deriving human values is not in itself a new phenomenon. As David Harvey suggests, "the natural world provides a rich, variegated, and permanent candidate for induction into the hall of universal and permanent values [used] to inform human action and to give meaning to otherwise ephemeral and fragmented lives" (Harvey 1996: 157).

 For music ecology, some of the most pressing "what ought we to do?" questions are bound up in discussions of music sustainability (Pedelty 2012: 11). For example, Anthony Seeger uses biological metaphors to resist the forces that precipitate what Lomax (1977: 125) identified as "cultural grey out." In a public lecture given at Monash University, Australia, in November 2013, Seeger argued that "[music] traditions don't simply disappear [be]cause no one likes them anymore; they disappear as a result of other actions in parts of the ecosystem of which they are a part" (Seeger 2013 [emphasis added]). In this lecture, Seeger identifies what he sees as the major threats to existing musical cultures, including copyright law; transnational media; rapid social change and urbanization; loss of knowledge bearers; tourism; church and missionary influence; certain forms of government action; and adverse policies (Seeger 2013), all of which could be framed by other theoretical paradigms; Marxist cultural theory or network theory for instance.

Titon expresses similar sentiments, and argues that ecomusicology can be instrumental as a counterforce to globalization and neoliberalism, which he views as the greatest threats to music, sustainability, and the environment (Titon 2013: 9). Titon defines sustainability in a seemingly paradoxical (though perhaps pragmatic) fashion:

> A sustainable system is one in which the goal is permanence achieved through the utilization of renewable resources. This permanence is not the permanence we associate with something that never changes. Rather, it is dynamic. The elements in the system, their proportions, structures, relations, and functions will vary; but the system itself is permanent for practical purposes in the foreseeable future, though not for eternity. (Titon 2013: 9-10)

Catherine Grant has also looked to the metaphors and what she calls the "inextricable" links between cultural and biological diversity (Grant 2012: 3). Here, the metaphorical includes allusions to interconnectedness, while "inextricable" links refer to a music culture's physical relationship to a specific biosphere (for example, Steven Feld's studies with the Kaluli and the indigenous inhabitants of Australia's Uluru-Kata Tjuta [Grant 2012: 4]). She argues that the metaphorical parallels between the cultural and the biological[3] can be useful in developing models to support diverse cultures (specifically musical and linguistic in this paper) across the globe. While she acknowledges some of the limitations in applying biological metaphors to diverse cultures (Grant 2012: 2), she argues that there are potential benefits in framing the discourse of cultural sustainability in ecological terms:

> Ecology frameworks may inform the development of a model of musical diversity that defines with greater clarity what constitutes sustainable musical environments; that indicates how to gauge their health; that helps identify the challenges they face; that points to methods which may resolve those challenges; and that helps anticipate future outcomes of our actions (and inactions). (Grant 2012: 3)

A basic assumption in each of these models is that the ecosystems analogy (however it is formulated) is somehow transferrable to the study of music cultures, and can provide a position from which to argue for the diversity and safeguarding of these music cultures as they exist in the world.

There is, however, a fundamental tension in music ecology's efforts to frame the argument about musical and cultural sustainability in such ecological terms. What natural right has a musical style such as Western classical (Titon 2013), or the music of the Kaluli (Feld 1994), to exist? Such thinking assumes that any individual organism within any particular ecosystem has an *a priori* right to existence, a position that is not concomitant with scientific understandings of ecology whereby individual organisms or species have no right to survival: they adapt or their energy is redistributed to other, more adaptable organisms. It is only possible, therefore, to say that an action is unethical within an ecological model of cultural production and consumption if we adopt a utopian notion based on the aforementioned residual understanding of ecology and ecosystem. To move to a model of ecology that emphasizes struggle and competition between organisms could not provide a place from which to judge unethical the operation of the market and the individualist, acquisitive, and anthropocentric ethic it propagates. So while it is accurate to say that a lot of music ecology misconceives the contemporary scientific view of ecology, such a "misconception" is crucial for the development of a foundation upon which to build an ethics that might be used to defend certain music practices from market forces and their effects. It is through such pragmatic misconception that "we load upon nature … much of the alternative desire for value to that implied by money" (Harvey 1996: 163), and in so doing we "naturalize" values other than profit.

Music, Ecology, and Cultural Politics

In addition to ethical concerns, there are also questions as to the role and possibility of cultural criticism within a music ecology model. Within the model's parameters, on what basis can one critique specific musical practices of production or consumption? While the utopian model works pragmatically to provide a foundation for ethical questions, this pragmatism can see the model co-opted by those it aims to critique. The utopian model of ecology is open to appropriation because it can be used to naturalize the network of asymmetric power relationships that are fundamental to all cultural production. In fact, the ecology metaphor is often invoked to legitimize the coexistence of irreconcilable and conflictual cultural and political forces. For example, in Australia, the New South Wales Government arts policy and funding body, Arts NSW, uses the ecology metaphor to describe a flourishing and innovative arts sector, with artists, arts and cultural organizations and creative industries being part of a dynamic ecology" (Arts NSW 2010-11:

68). Even more problematically, the Queensland Arts and Cultural Sector Plan (2007) states:

> The structure of the arts and cultural sector mirrors the diversity of a natural ecology. This ecology embraces many business models and forms of practice—individual arts and cultural workers, artists, collectives, volunteer groups, small to medium organizations, major cultural organizations and institutions, industry associations and creative business. The ecology also takes account of the various spheres of government which provide settings and resources and support professional and career development. (Arts QLD 2007: 9)

Here the cultural ecology model—one based on a pastoral idea of nature—has the *ideological effect* of naturalizing power relationships, masking conflict, and legitimizing hierarchies by exscribing them. In this instance, cultural ecology turns social and economic hierarchies into a mosaic, in which there is a place for everything and everything has its place. Power differentials and conflicts arising out of this are elided, depoliticized, naturalized. That the discourse of ecology can be so easily assimilated by commerce should come as little surprise, because when Ernst Haeckel first defined ecology as naturhaushalt (Stauffer 1957: 141), he did so by analogy to *19th-century* free market economics: for Haeckel, ecology was "the economy of nature"; for Arts NSW, ecology is the nature of the economy.

Such thinking, thinking that naturalizes power relationships within the cultural field, may impede and curtail discussions of social justice and mobility. The possibility of theorizing inequality is at best reduced and at worst negated by an ecological model that naturalizes and therefore legitimizes the presence and the role of all elements within the particular ecology. For example, if a large multinational music company were to record, commodify, and copyright the music of a subaltern culture, from where could music ecologists begin to criticize such an action within their understanding that music behaves as nature? Would that not be akin to criticizing an apex predator for acting according to instinct, hunting and consuming for survival within its environmental surroundings, irrespective of the endangered conditions of the species that share its environment? We would argue that most scholars invoking the music ecology metaphor are doing so from a desire to speak up on behalf of endangered musical species, to advocate on behalf of the subaltern in their confrontation with power. However, the utopian model of ecology may work against this aim.

Conclusion

Music ecology, as we have defined it, subscribes to a utopian conception of ecology and ecosystems. It has a tendency to deploy residual rather than scientific understandings of ecology while simultaneously appropriating, or at least attempting to appropriate, the aura of authoritative scientific discourse. Such a utopian understanding of ecology pragmatically misconceives the science of ecology in order to provide the basis for a viable and effective ethical alternative to the hegemonic, individualistic, acquisitive, and destructively anthropocentric model offered by the capitalist realism of the so-called "post-ideological" age, an age in which capitalism has become our "second nature," a nature that engenders both wealth and enthusiasm in the few and feelings of "helplessness" in the rest (Latour 2014b). Music ecology's alternative ethics offers a criticism of this "second nature" not from an explicit ideological point of view, a point of view that would likely be dismissed or diffused, but rather from a necessary ecological and naturalized one that might be more resilient.

However, any projection of a utopian ecological model of balance and harmony has political ramifications. In adopting a utopian ecological model, albeit for pragmatic ethical purposes, we inadvertently subscribe to an understanding of musical production and consumption that is susceptible to co-option by the very system that, at an ethical level, we seek to challenge. So while at an ethical level it is advantageous to see the natural world as a harmonious and interrelated whole in which everything has a place, politically this can lead to the acceptance of capitalist institutions within that ecology. Thus while the utopian model may allow for an ethical argument in favour of musical sustainability, it also naturalizes the vested interests of those institutions that threaten that very sustainability. Highlighting the ambivalence of music ecology and its uses does not equate to an argument for the separation of music from nature, but an acknowledgement of the limitations of the ecological metaphor deployed by music ecology for understanding environments and their human musical cultures. While we do not deny the need to link the musical, cultural, and the environmental, we argue that music ecology may not be the most effective way to make such necessary connections. ❧

Notes

1. In this sense, ethnomusicology has exchanged one "other" for an-"other": it has exchanged the postcolonial "other" as its object of study for a "natural other."

2. He now adopts the position of discussing ecosystems with regards to "ecosystem services," resilience to disturbance and resistance to change.

3. The use of this metaphor also assumes that the culture/nature binary is itself unproblematic.

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