Soundscape as social construct

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Abstract
This article builds on the basic concept in acoustic ecology; that sound can be understood in terms of how it regulates and is regulated by social contexts, or as a representation of aspects in the relationship between human beings and their environments.

However, from this understanding of acoustic ecology, its academic practices often develop the notion that nature is a substance that essentially does not involve human activity in other aspects than as a source of unwanted noise and other unwelcome influence. Philosophically and politically, however, this is an untenable position, and acoustic ecology's limitation to conventional environmentalism paradoxically reduces the potential for furthering the understanding of modern, human-made soundscapes.

This presentation posits that human activity is just as natural as that of other species, and that human sonic emissions can best be understood in terms of their functions in socially determined contexts, as both deliberate and non-deliberate results from human activity. The understanding of soundscapes thus depends on the underlying logic of human action and interaction, and a case is made for broadening the perspectives of soundscape analysis to include analyses of the social contexts that sounds are part of.

Preamble
The term soundscape has come into use in public debates about environmental challenges, as well as among artists. Attention to our sounding environment is growing, and unwanted sound is more often than before being discussed in the public domain. It seems that hearing is finally claiming its place in the world, and this claim comes with a set of demands that range from limitations to sound pollution (from the transport-sector mostly), to sound emissions from industry and a variety of consumer behaviors such as use of cellphones and other types of electronic technology.

In the artistic domain, soundscape performances and installations have been gaining attention and recognition rapidly for more than a decade, although the genre is quite a bit older than that. The recent growth can be attributed to easy and cheap recording and reproduction technology of high quality, and a general increase in familiarity with digital techniques for editing and processing recorded sounds. Soundscape art as a genre is claimed to spring from the disciplines of electroacoustic music and visual art, and there is substance to both claims. The use of recorded sound is the very basis for concrete music, and for practical reasons also for electronic music where sounds are generated in electronic machinery. The term soundscape in concrete music merely suggests a refocusing away from the abstract aspects of the recorded sound towards recognition – "I can hear what this is, and I have a good idea where it is from." The visual art approaches soundscape with more interest in contextual than timbral aspects, and symbolic and representational significance is more emphasized. Often one can find sound installations that employ recorded soundscapes, where the time-critical aspects of music is replaced by a more circular appreciation, so that attention can be focused and refocused on sounds, allowing time-independent narratives to be constructed. The visitor is free to absorb the works over time in the way he or she wants, more often in a gallery rather than concert presentation. And then there are all forms in between, where these boundaries are blurred with innovative, performative practices.

But before we go any further, it makes sense to look at some terminology.

Soundscape refers to how our surroundings present themselves through sound. One can read the term as an aural parallel to the visual landscape. A soundscape tells us what is going on around us, and also informs us on the acoustic properties of our environment – reflection and absorption patterns, acoustic shadows, and so on. Blind people are masters at mapping their surroundings through reflections from objects.

Acoustic ecology is a more demanding term which aims to describe the interdependencies in sonic interaction; how sound is being used to influence and control contexts, and also how it in turn is being controlled by other elements in the same contexts.

Soundscapes and acoustic ecology "acoustotopes" are perceivable only within projection range, which then can serve a working tool to define "local", which is necessary for delimiting and defining context. This is a reverse extension of Murray Schaeffer's term *acoustic horizon* that was coined in the 1960s – the maximum distance for a listener's perception of signals.

While soundscape practices has no particular arena for academic and artistic exchange, acoustic ecology has two main arenas – the organization *World forum for Acoustic Ecology*,[1] and the *Soundscape Journal*.[2] A dominant concern in the WFAE conferences is environmentalism and preservation of nature, which despite the worthwhile intentions seem to have stagnated in a certain view on human-made sounds, mainly heard as threats to nature and the natural condition, not as part of it. This type of prescriptive attitude implies that humanity and human activity is not part of nature, thus limiting investigations of the interplay between humans and their surroundings.

By reducing human sound emissions to noise pollution, preservation models will fail to recognize the nature of sound environments, because only the emissions themselves are discussed, not their motivations. Very few of our environments are created for their musical or spectromorphological characteristics, and by studying and criticizing only the sounds themselves, one deliberately looks away from the more fundamental reasons for their presence. In social anthropology and the more recent field of sound studies, the social significance of sounds is crucial in the theoretical modeling, bringing human activity into the picture as something other than as a pollutant.

Authenticity and place
Soundscape art often draws on the idea of authenticity; it refers the listener to seemingly truthful renderings of something specific; it is referential. And most times in soundscape recording, great pains are taken to cut the human presence out of the aural image, not to have the meaning be disturbed by human presence. Often, the recorded environments are exotic, and composed of sounds that few of us will ever hear in real life, such as for example recordings of tropical rainforests or other remote locations, subsea environments and so on. The sense of authenticity is perhaps more prominent in those cases than when the sounds are familiar, since the recordings give the listener an aural glimpse of something that is normally unknown.

However, this point of view is a simplification – there are all kinds of human presence in the recordings. The technology used - microphones, recorders, editing and playback equipment - comes with consequences for how the recordings sound, the sound is processed in all these technologies. And in addition, but not less important, is the listener's perspective – which sounds is the recordist interested in capturing; which aspects are emphasized? An example is a composer who dismissed four world-famous rainforest recordings because they were recorded without the use of microphone arrays and spatial techniques. The composer claimed that the recordings were worthless, because the spatial information that would allow exact pinpointing of sources and movement had been collapsed into a stereo rendering. The recordist's liner notes and extensive academic work make it clear that other aspects than space are his main interest in the particular environment, but for the composer in mention the recordists perspective did not provide the information she was interested in. Where does the word authentic stand in this discussion?

Another example with bearing on the idea of authenticity is the Lyre bird. David Attenborough has distributed footage of vocalizations from this bird, where it excels in mimicking sounds from its environment that stems from human activity – camera shutters, chainsaws and several other sounds.[3] Is the Lyre bird less authentic when showing off these sounds, or not?

These two examples question the idea of authenticity from two perspectives – human selection and soundscape adaption. It seems that authenticity should include the notion of *affordance* - of which activities are possible, why and how. This would be a perspective of change rather than stasis, and would make room for human agency of the type that is present in our two examples, where several possible comprehensions of soundscapes exist, depending on the listener.

Now that we have seen that soundscapes are subjective, the question on how the soundscapes give meaning emerges. How do we make sense of them? Phenomenologist Edward Casey suggests that the

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[1] www.wfae.net
[2] wfae.proscenia.net/journal
[3] http://www.youtube.com/watch?v=VjE0Kdfos4Y
Another clip from the Adelaide Zoo is found here: http://www.youtube.com/watch?v=WeQjkQpeJwY

general is being converted into the specific – that *space* is being converted to *place*.[4] He writes that this happens through perception in the listener, through a process of engagement, which means that we listen to elements in the soundscapes, not only hear them. The same physics is perceived differently from person to person, and the perception is multi-sensory – all senses are active at the same time.

An understanding of multi-sensorial perception has not been strongly represented in musicological analysis of music, including electroacoustic music. The notes and/or sounds are separated from other aspects of the musical situation. They are dissected from the situation, to borrow a term from David Howes.[5] This separation serves to help focus on the aspects of music that at first seem most salient, and it is easy to understand the motivations behind this reductionism – it belongs in the traditional paradigm. However, more recent developments have focused on embeddedness; that each separate object for analysis is connected in complex ways to the context it appears in. By considering music in that way, it is easier to understand music and musicking in a broad fashion, and music is starting to become viewed not so much an object, but as one of several elements in social exchange. This implies that the cultural patterns of music (and soundscape, since we have defined soundscape art as belonging also to the musical domain), can be viewed as embedded in everyday cultural practices,[6] and that the values we assign to them emerge in these social practices. Soundscapes and music are not just timbral objects that exist independent from us.

Here is an example: In his work from New Guinea, social anthropologist Steven Feld describes how soundscapes give meaning because they are connected and interconnected. They become specific places because they link and collect metaphors for social relations and obligations.[7] The environments are perceived through all senses, and the soundscape perceptions are embedded in this broad sensory experience. Your ears and nose both remember. At one point, Feld was asking an informant for the name of a bird that emitted a particular sound, and was told that when *he* thought about bird species, the local inhabitants were thinking of the sounds as voices from the forest, their forefathers. They were irritated by his reductionism. With this example in mind, it is easy to understand how the combined actions of seeing, hearing, tasting and smelling are being socialized, and that place emerges from the socialized senses. The experiences are in effect social, and trigger cultural memories.[8]

Constructs

That human-made soundscapes are physical constructs is obvious, and most of them are not planned; they happen because of the activities in the environments. In these cases, the soundscapes are byproducts, and discussing them without regard for the underlying logic brutally affects how well they are understood. For example measurements and evaluations of sound pressure can tell us about possible harmful effects, but a richer comprehension and experience will depend on an understanding of how and why sounds are emitted, and what the results may be from these activities. Think for a second about different types of music, popular and art music, and what types of descriptions people that do *not* like these genres use – clearly, the descriptions do not come close to capturing the essence of why these genres are liked by others. The social commentary is obvious. Can we find the same also in regard to natural soundscapes?

The view on nature, and by extension the sounds from it, has changed quite dramatically over the centuries. In the middle ages, nature's lack of "civilization" was thought of as problematic, and nature also contained outright evil. This did of course not mean that all of nature was considered to be evil, but the general idea was that nature depended on human stewardship to in order to keep the evil at bay, and moral refinement was considered a human enterprise, not a natural condition. One can for example read bestiaries, where animal species are described; some of them as being evil. In Europe, catholicism had a lot to do with this way of thinking, and it was the church that defined the rules for good and bad. Unsurprisingly, it allotted itself a crucial role in increasing moral standards. It is also reasonable to assume that the human vulnerability to the dangers of nature made it easy for this idea to be accepted. It was a view on nature that humans constructed.

In the romantic period, nature became a source of good, and from visual arts and literature, it is easy to see how this came as a timely response to the challenges and problems that emerged with the combination of rapid growth and the beginnings of industrialization. Nature became good, and a source of orderliness and high moral values. Images showed nature as a harmonious system that rested in itself, in balance and as provider of identity, not in need of one. One can think of the Düsseldorf-

[4] Edward Casey (1996). How to get from Space to Place in a Fairly Short Stretch of Time: Phenomenological Prolegomena. In Feld, S. and Basso, K. *Senses of Place*, Santa Fe, Scholl of American Research Press, p. 173.

[5] David Howes (2003). *Sensual relations*. The University of Michigan Press, Ann Arbor.

[6] Ibid, p. 14.

[7] Miriam Kahn (1996). Your Place and Mine: Sharing Emotional Landscapes in Wamira, Papua New Guinea. In Feld, S. and Basso, K. *Senses of Place*, Santa Fe, Scholl of American Research Press, p. 173.

[8] Paul Stoller (1997). *The taste of Ethnographic Things*. Philadelphia, University of Pennsylvania Press.

school of painting, where painters sketched natural formations on location and brought the sketches back to the studio where they combined the elements in order to create idealized landscapes. In Norway, the most well-known exponents for this trend are Adolph Tiedemand and Hans Gude. In music we found the same mobilization for the creation of a national identity, and works of for example Edvard Grieg and Bedrich Smetana took elements from folk music and nature to construct sonic images of what was thought of as authentic, national identity. Human agency is obvious also here; the romantic notion of nature is a construct with cultural roots.

In the beginning of the twentieth century the romantic notion of nature was countered by for example the futurists, and it is the urban life that now fills the mind – the movement, vigor and dynamicism of urban life replaces nature as an ideal. In their manifest, the futurists reject also the romantic music, and claims that the new, industrial sounds and various noises should replace the salon-culture of the past. Industrialism brings freedom, much the same notion as the medieval German *Stadtluft macht frei* – Urban air sets you free. It is the activity and the noises that bring wealth, and point the way into the future.

On a sidenote, in many societies, loud sounds are associated with power, and rulers use this projection for maintaining their positions. Some of these customs are found in societies that have not yet been industrialized, and this suggests that noise has carried this significance for a long time. Psychoacoustics also tells us that loud sounds have priority over soft sounds. One well-described example is from the Burundi tribal society, where the king always has a stout corps of drummers that form the front of the royal processions. The parallel example is western-style motorcades with heads of state, slightly parodied by the Russian president in one of his carefully orchestrated photo sessions, where he lets himself be photographed on a Harley Davidson customized Electraglide at the head of a motorcycle parade in Moscow. The attention that noise demands is neither lost on straight-pipe motorcyclists in general. So noise is a tool with a large social impact. An analysis of urban noise must not miss that point.

Modern artistic constructs
Soundscape art often renders autonomous environments without the inclusion of sounds from the recordist or other human-made sounds. The idea is that the soundscapes then will be rendered in authentic fashion, although the agenda of the recordist and the choice of microphones and listening perspectives actually has consequences for what is put on disk. This is discussed in the beginning of this article.

But soundscape art has proceeded beyond this representational perspective into a more conceptual domain, populated by several artists. One of these is Peter Ablinger, who in a series of works puts folding chairs out in several different locations, indoors and outside. The chairs are set up in a structured fashion, for example in a 6*6 grid. By using this formal arrangement, Ablinger invites a concentrated listening rather than an informal one. In one of the works – chairs in a parking lot which looks like it is in the United States - one would listen differently than one would in one of his more traditional soundscape-settings, with chairs placed for example on a windy and sunny beach. In combination, his works suggest that it is the awareness brought by listening itself that is in focus. Ablinger does not isolate the listening, on the contrary, he points to the referential and relational aspects where the act of listening constitutes what is interesting in the environments and the people who populate them.

Another artist who works in the same direction is Jacob Kirkegaard, and in his recordings of acoustics in abandoned spaces where eroding processes are clearly visible, he adds an emotional element when he informs the listeners that the recordings are from Chernobyl, the Ukrainian city that was abandoned as a result of a nuclear meltdown in 1986. People are not indifferent to nuclear meltdowns, and our perception of the recordings changes when we know where they are from.

Soundwalks is yet another genre in soundscape art – basically the listeners are led along a predefined path of sorts, planned because of its signature sounds and interesting audible events. Composer Kjell Samkopf does just that, but in the form of recordings. His works are released on CDs, and he prefers the format because it invites the type of concentrated headset listening that the listener can get at home. A closer and more comprehensive analysis of Samkopf's works is beyond the scope of this text, but a short description is that he always includes himself or sounds of other people in his works. In his "Mårådalen Walk" he records the sound of walking through a mountain landscape, and one can easily hear what the ground is like and what type of effort is involved. Without the sound of walking, we would just hear wind and perhaps birds. Samkopf activates the landscape through his movements, and at the same time, he actuates it; making it interesting through his interaction with it. This is not the interpassivity one creates by letting objects present and elaborate one's ideas, but action as a precondition for experience. So in Samkopf's walking, there is a desire for result and action, much the same as in the works of Kristina Kubish, who in her electrical walks gets the same effect. Her technique

is to have the listeners wear modified headphones that create sound by induction, when the walker pass through or near magnetic fields as found around electric cables, store security barriers, and a host of other devices found in urban environments. When using this technique, she is sonifying these environments in order to make the listener aware of them.

Her environments are of course human made, and as such, social products. Few of us, however, think much about this electronic weave, and hearing a representation of it can be a dramatic experience. As Samkopf, Kubish brings human activity into the equation, and her works are as relational as Samkopf's. Both install in the walker and listener the understanding of participation, and that participation gets richer with the reflection resulting from experience – a seasoned mountain wanderer notices more than does a less-seasoned visitor.

Summary
The point argued in this short article is that all soundscapes can be seen as constructions; constructions that listeners make with help from their hearing, seeing and other senses. Listeners create their soundscapes through their engagement with it, physically and/or mentally, depending of what the sounds represent to them, and this is a continual and necessary result of the socialization where meaning is developed. Listeners interact with their surroundings, and actuate them through this interaction, creating place out of space –when physically taking part and also when merely listening. The soundscape is never just a given substance, it is a process where the listener occupies a necessary place.

By maintaining a focus on the underlying logic of soundscapes, it will be possible for acoustic ecology to deliver on its promise of revealing the interconnectivity in sonic communication, and suggesting ways forward for establishing more interesting aural environments.