

## Using Acouscenic Listening to Hear the Unheard

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**ABSTRACT:** This paper discusses the emergence of a creative approach for sound art and acoustic ecology, developed over a seventeen-year timeframe within the collaborative art/science practice of Softday<sup>1</sup>. Initially, we worked with sonification algorithms to create musical mappings from environmentally related data, performed by classically trained musicians. The sonifications were complemented by field recordings of soundscapes from the contexts of the data sets. We have increasingly been using soundwalking to inform our work, normally conducted with a group of participants that create a collaborative sound map of an area of interest. The participants then use the sound map as a graphical score and perform the soundmap. A collectively experienced, internalised and re-represented soundscape being expressed as a collaborative performance can help to communicate both context and affective aspects of the work.

**KEYWORDS:** Soundscape Ecology, Human Geography, Sound Art and Ecology, Acouscenic Listening, Creative Soundwalk.

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1. <https://softday.ie/about.html>

## 1. Introduction

This paper discusses the emergence of a creative approach for sound art and acoustic ecology, developed over a seventeen-year timeframe of art/science practice. Initially, Softday worked with sonification, using for example artificial neural network algorithms to create musical mappings for performance by classically trained musicians, of environmentally related data sets. The sonifications were complemented by field recordings of soundscapes from the contexts of the data sets, including sounds from normally unheard sources, e.g. using hydrophones. Since then, we have increasingly been using soundwalking to inform our works (Westerkamp 2006). Our soundwalks are normally conducted with a community of interest that create a collaborative sound map of an area or location of interest. The sound map is then represented as a graphic score with the participants' annotations spatially distributed as the experienced place is recalled, and using colour coding to signify for example biophony, geophony and anthrophony (Krause 2012). The participants, using their own bodies and voices, then perform the soundmap. Each performance is recorded and discussed by the participants and further iterations/performances of the soundmap may be created. What started as our own intuitive approach for creating environmentally related sound art has now become a more formalised method for exploring soundscapes collaboratively. We are now seeing, or rather hearing, that it is the context of the data that is the critical aspect of our works.

In our latest works, we have extended this method to include the participants' own field recordings of their own soundscapes. We trained participants to use inexpensive recording equipment and open source software tools to edit and process their soundscape recordings and to collaboratively perform with their recordings as a laptop ensemble. As a basis for the performance, a graphic score is collaboratively created and after several iterations of the performance, as part of the reflective practice, the participants finally performed the work in public.

## 2. Acouscenic listening

Sound can be an invasive phenomenon of everyday experience in that it assists our engagement with, immersion in, and commentaries with the environment in which we live. Auditory engagement further challenges the dominance of the pragmatic visual object and counteracts a prevailing bias or dependence upon a predominantly ocular-centric focus of reading an environment through predominantly visual metaphors.

Most of us think that what we think about a place is determined by what we see in it. And I think it is for most of us, consciously. But unconsciously there

is a perception of a space which deals with how it sounds, what sounds are there, and how sound acts in it and on our sense of sound. (Neuhaus, 1984)

The city as an incessant inundation and movement of sonic action may be experienced through the listening body as sound incorporates and mediates a connection between space and narrative. Sound textures can be referred to as the strata of sounds within a musical composition and their relationships to each other. The aural texture of an urban soundscape may be constructed by an attentive listener sensitive to the combinations of competing sound signals arising from background noise, and these aural textures may be considered as static images by the auditory system (Rabinowitz & King 2011). Sound is also concerned with phenomenology, memory, imagery and associations. This may be referred to as sound's specific relational condition. Sound is something that reacts with space as Salomé Voegelin (2010) suggests, "sound narrates, outlines and fills, but it is always ephemeral and doubtful".

In 1974 the American composer Pauline Oliveros published 'Sonic Meditations' a seminal work that broke away from the prevailing traditions of western music, and challenged the need for standard music notation in favour of prose instructions (similar in composition to Alan Kaprow's 'Happenings' or Fluxus event scores). Oliveros (2010) defined Quantum Listening as "listening in as many ways as possible simultaneously – changing and being changed by the listening". Quantum Listening directs our attention in a non-judgemental way to what is heard, amassing meaning, and interpreting the meaning of what has been listened to, whilst deciding on further creative actions. Quantum Listening can be regarded as similar to Schaeffer's Reduced Listening (1966). The understanding and application of Oliveros's Quantum Listening methodology contributes to our on-going investigation of the everyday within Acouscenic Listening practice. The focus of Softday's Acouscenic Listening practice cultivates an understanding and appreciation of soundscape to body on a finely tuned level, expanding the potential for connection and interaction with one's environment, body, technology and performance with others in sound and related arts. When working with the quotidian, this is realised through focused creative soundscape walking meditations, a methodology that has become a key element of our Acouscenic Listening practice.

In John Drever's (2009) assessment, "the salient concern in soundwalking is everyday life" and a key concern of the Creative Soundwalk is the corporeal exploration of sound location, narrative and its relation to the everyday. A Creative Soundwalk encourages the interaction of the individual listener to space and place through immersive or embodied experiential mapping and a basic understanding of psychogeography. Traditional soundscape walking meditations can be either singular or shared experiences, encouraging participants to create subjective maps based on areas of appeal, mapping mentally and mindfully

a relationship to place and memory through environmental sound. A Creative Soundwalk differs from a traditional soundwalk in terms of its objectives to locate the practice within the everyday, to encourage its participants to be active listeners, researchers and creative participants. In order to achieve this, a creative turn is applied to co-authored subjective maps created by participants on a Creative Soundwalk.

The Acouscenic Listening approach to the Creative Soundwalk may be considered closer to the *dérive* or 'drift', defined by Guy Debord (1958) and the Situationists as

a technique of rapid passage through varied ambiances. *Dérives* involve playful-constructive behaviour and awareness of psychogeographical effects, and are thus quite different from the classic notions of journey or stroll.

While a traditional soundwalk may be exploratory, scientific, phenomenological, experiential, etc., an inherent aspect of an Acouscenic Listening approach to Creative Soundwalk practice is playfulness, which is an essential ingredient that is fundamentally suited to encouraging creative self-expression for a layperson. Play liberates the listener from an overdependence on competition, cogent discourse and rationality in relation to music/sound inherent through pre-existing controlling paradigms of social and cultural conditioning. The Situationists in their critique of the primitive social functions of play state that "its goal must be at the very least to provoke conditions favourable to direct living".

The attentive listener plays an active role in actively perceiving sound in the world and simultaneously plays a creative role in developing an impression of a given soundscape, which in turn may lead to greater emotional satisfaction, creative stimuli and communicative experiences of the everyday. The Acouscenic Listening approach to creative soundscape mapping reveals a myriad of sonic events that are often mundane, habitual or ambiguous. Our desire to reveal the minutiae constituent parts of a soundscape finds purchase in the writings of Georges Perec, who along with Michel de Certeau, and others, integrated new ways of engaging with urban spaces through concrete experiences of the everyday. Perec asks:

How should we take account of, question, describe what happens every day and recurs everyday: the banal, the quotidian, the obvious, the common, the ordinary, the infra-ordinary, the background noise, the habitual?  
(Perec 1997)

A complex soundscape also reveals localized histories and memories that may lead to the creation of fresh narratives for further creative development. We explore the continuous integration of everyday sounds in sound/music composition, a tradition instigated by

Russolo through Cadrew, Cage, the Fluxus movement and others, that seeks to insert the sounds of the banal, the mundane and the everyday directly into live performance. We regard this approach as a means of giving aesthetic credibility to these sounds.

## 2.1. The Acouscenic Listening Workshop

Since 2012, Softday have been conducting creative workshops based on our practice in Acouscenic Listening, drawing upon and combining methodology from Acoustic Ecology and Socially Engaged Art practice. We are interested in the dialogue that occurs between the listening participants and place or space, a dialogue embarked upon through the language of sound. The participants are introduced to some theoretical contextual and practical frameworks for the use of Acouscenic Listening as both a creative deep mapping exercise and holistic sound art practice. A typical Acouscenic Listening workshop may be broken down into a number of learning outcomes:

- Theoretical context and practical frameworks for the use of Acouscenic Listening.
- Participation in and understanding of the Creative Soundwalk.
- Introduction to psychogeography and deep mapping.
- Introduction to collaborative, co-authored sound art practice.
- Critical reflection on all aspects and potential creative outcomes of the workshop.
- Introduction to Eastern thought, pedagogical theory and practices, and Acouscenic Listening.
- Introduction of group sonic meditations work.
- Introduction to graphic music scores and the application of a creative turn to the completed soundmap.
- Performance, recording and dissemination of the completed sound work.

A key element of the workshop is derived through consensus by the participants and Softday to collectively develop, document and track the evolution of the proposed work, from its original 'pitch' by the artists as a workshop concept, to the collective mapping, movement meditations and improvisations, to final performance and public dissemination of the creative work. Agreement is also sought on how work in progress may be documented (audio/video/photo). Continuous critical reflection on the delivery of workshop elements also assist both the participants and the artist/educator to reflect upon the learning experience, and to inform all participants steering the development of the work towards a possible shared vision. Reflection also highlights any emergent misunderstandings or antagonisms within the shared group experience as the workshop evolves.

The artist's role in this process is both socially communicative and creatively pedagogic, working with participants to share 'expert' and 'lay' knowledge, and allowing participants to find their voice or form of expression that can co-exist with others in a communal discourse. Participants are introduced to *Qigong* and *Tai Chi* exercises and adapted

*Ear Cleaning* exercises. *Ear Cleaning* exercises were first proposed by R. Murray Schafer who emphasized that ears should be ‘cleaned’ as a prerequisite to listening (1967).

The Acouscenic Listening Creative Soundwalk is undertaken in silence with the agreement of all participants. Walking in silence is an important element so that there are no demands on the attention of the participant from mobile devices or conversation. During the Creative Soundwalk, mindfulness techniques are applied in order to consciously quieten the mind and bring a listening attention to the soundscape. This process can be described as ‘training the muscle of our attention’. Interrupting the cycle of incessant communication affords the participant the space to temporally ‘switch off’ from the demands of technology and ‘switch on’ the listening body to the developing soundscape environment.

This silence may also be thought of as a meditation or at very least a temporary agreement between the participant and the artists to employ a mode of consciousness in order to cultivate an embodied response to the sonic environment. In this state the meditating participant engages in, or is aware of, all that happens with transient and situated sounds of place occurring within a real geographical time frame. This action creates a temporary social bond within the group, even though each participant may articulate a unique listening experience upon completion of the walk. The participant engaging with acoustic space creates a scenario, an improvisational interrupt, and a change of perspective that deepens the embodied listening experience. The Acouscenic Listener should therefore expect that they are immersed in incomplete positions of uncertainty and ‘not-knowing’, continuously searching for the value of ‘sounds-in-themselves’ in order to establish the sound objects as well as establishing themselves.

Upon completion of the Creative Soundwalk participants are invited to collectively create a soundmap of the experience. This map is not necessarily an accurate graphic representation of sonic features that appear in the sound environment, as is the case with detailed topographic maps. The sound map is a graphic score with the participants’ annotations spatially distributed as the experienced place is recalled, and using colour coding to signify biophony, geophony and anthrophony sound sources. The participants then, using their own bodies and voices, perform the soundmap. The Acouscenic Listening sound map is at this juncture a visual representation (a graphic art work in itself), which suggests no limitations as to how it may be further represented or transformed. Therefore, the map (Figure 1) can be received as subjective truth insofar as a sound map is an abstraction derived from the territory of the sound environment, but is not the thing itself, as scientist and philosopher Alfred Korzybski suggests; “the map is not the territory”.



of a reciprocal process between the listener and the sonic environment. The environment suggests distinctions and relations, that enable the listener to pick up information in the ambient acoustic array (Gaver 1993) and to select, organise, and transform the meaning of what is heard.



Figure 2. Mapping the Limerick City Soundwalk, October 2016.

The ambient acoustic array can provide us with rich information about place and activity in the world. Without having to think about it, hearing contributes to our immediate awareness of surrounding space. For example outdoors, aspects of the soundscape can be rapidly picked up. A blindfolded person can be led around between different places and their hearing will immediately pick up subtle cues about the structure of the environment and surrounding activities (McGrath et al. 1999). Hearing also helps shifting attention between events happening around us, including behind, above or in places in the immediate environment where the actual source is visually occluded (Van Valkenburg et al. 2004). Therefore the listener plays an active role in perceiving sound in the world and simultaneously plays a creative role in developing an impression of a given soundscape, which in turn may lead to greater emotional satisfaction, creative stimulation and communicative experiences of the everyday.

## 2.2. Case study: Using Acouscenic Listening in the Amhrán na mBeach (Song of the Bees) projects

In our on-going project *Amhrán na mBeach (Song of the Bees)*<sup>2</sup> we have extended the Acouscenic Listening methodology to include the participants' own field recordings of their own soundscapes. *Amhrán na mBeach* draws attention to the global condition of honeybees and

2. <https://softday.ie/bees/>

in particular current threats such as Colony Collapse Disorder (CCD). We approached Simon Sleeman, the apiarist at Glenstal Abbey in Murroe, Co. Limerick, who agreed to collaborate with us on developing this project.

We examined the prevailing conditions that contribute to the destruction of honeybee colonies globally including CCD, the fragmentation of bee habitats, the spread of monoculture agriculture, the extinction of a number of wild bee species, the planting of genetically modified organism (GMO) crops, and the wholesale commercial trucking of bee colonies to agricultural areas to replace the wild pollinators, which themselves have almost disappeared. We also surveyed international and national data sets in relation to the proliferation of Neonicotinoids and other contested toxic pesticides that may contribute to increased levels of CCD in global honeybee populations.

In 2012 we commenced a series of intensive workshops at Glenstal Abbey with a small group of four Irish beekeepers. We trained the group, our community of interest, to use inexpensive recording equipment and open source software tools to edit and process recordings from Creative Soundwalks undertaken in their own apiaries. We conducted workshops with the beekeepers and encouraged them to collaboratively perform live with their recordings as the *Softday Apiary (laptop) Ensemble*. As a basis for the performance, a graphic score was collaboratively created for a potential live group performance. In this part of the process all aspects of the potential interpretation of the co-authored graphic score are discussed with and agreed by the participants.

The *Softday Apiary Ensemble*, may be considered as a form of ‘Scratch Orchestra’, an experimental musical entity of the type established by composer Cornelius Cardew in the 1960’s. Cardew defined a Scratch Orchestra as “a large number of enthusiasts pooling their resources... assembling for action (music making, performance, edification)” (1969). We also created scores for the Irish Chamber Orchestra and for the Glenstal Abbey Choir, in Western Music Notation, generated from algorithmic sonification of four years of scientific data about bee diseases and colony losses in Ireland of CCD data. The world premiere performance of *Amhrán na mBeach* took place in Glenstal Abbey Church in April 2013.

In July 2014, Softday created and performed a Swedish version of *Amhrán na mBeach* entitled ‘Sonic Pareidolic Ceromancy’, which was performed at the Harp Art Lab in Harplinge in Sweden as part of the BZZZ! International Sound Art Festival 2014<sup>3</sup>. We used the Acouscenic Listening methodology also for this version of the project. We disclosed and contrasted the Irish bee data and sounds with Swedish bee data and sounds in collaboration with Swedish beekeepers, performers and musicians.

In 2015 we undertook an artist residency in Paris. Using Acouscenic Listening methodology we worked with urban beekeepers and local sound artists to reveal the unique and

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3. <https://softday.ie/bees/spc.html>

hidden soundscapes some of the Parisian apiaries. We conducted a public Creative Soundwalk to Le rucher-école at Jardin du Luxembourg and gathered field recordings that formed the basis of a new sound art composition. In September 2015 we performed *Chant des Abeilles – Song of the Parisian Bees*<sup>4</sup> live at the Centre Culturel Irlandais.



Figure 3. Mapping the Le rucher-école at Jardin du Luxembourg soundwalk, Paris, August 2015.

After the original performance of *Amhrán na mBeach* we have had several opportunities to deliver re-mediated versions of this work. In a re-mediated version where we don't have access to a chamber orchestra or trained laptop beekeepers, we use samples from the recordings we made during the original performances. While a re-mediated performance can be quite different to the original performance, the re-mediated performance is a statement or reveal of the oft-unheard narratives and memories from the original community of interest that we are bringing forward to new audiences. Some of the audience at the original performance were direct stakeholders or participants in some way, while audiences experiencing a re-mediated work can only have an indexical relation to the original work.

### 3. Conclusion

The work of Softday through the Acouscenic Listening methodology and the Creative Soundwalk, offers new artistic perspectives on the relationships between body, landscape, soundscape and the everyday whilst challenging assumptions that the predominance of anthropogenic sounds can be linked to a lack of environmental quality, or that they inhibit the perception of other natural sounds. We argue for a creative re-exploration of the human listening experience in a non-judgemental frame of mind, where an active listener

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4. <https://softday.ie/bees/paris/>

can consider all aspects and elements of a soundscape with an open mind. Furthermore, as discussed in the Amhrán na mBeach case study, the methodology can be used to help fuse data and context in a work of sound art.

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