SOUND COLLECTING METHODS LANGUAGE, DRAWING, AUDIO RECORDING & PHOTOGRAPHY - LIMITATIONS & POTENTIAL

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1 INTRODUCTION

This paper describes the methods applied to, and the outcomes of the research “the sound the site requires” conducted during an AHRC Research Fellowship at the University of Salford (May 04 - August 07).
I will first briefly introduce the research project.
The limitations of a language that has inadequate terminology for sound, and of sound, give reasons for further understanding of my research methods.
Based on practical experiences during my research I will also explain why a variety of sound collecting methods were utilised. These methods will be described in this paper

2 THE RESEARCH

I have always been interested in the relationship between sound and the environment. Since the 1970's I have been developing site-specific concerts, performances and installations. During this period I have experienced many audible sounds as well as those made audible through creative interventions. These sounds inherit extreme beauty and becoming aware of them and listening is utterly rewarding.
Shortly before I applied for the AHRC Research Fellowship I started a series of work under the title “über den hörwert” ('about the value to listen / of listening'). During this period in investigative performances and installations I no longer added sounds to wherever I worked, but researched the possibility of capturing the sounds of an environment and to communicate the findings to an audience.
This development became the inspiration for my research question

the site the sound requires

The following quotes are from the original proposal:

“...This research examines the proposition that sound is a valuable medium for recording and interpreting physical and social landscapes and will be a project to use sound as a sculptural medium for the interpretation of locations...

The question is:
Can sound function as an analytical tool for the interpretation of physical and social landscapes?
For this research sound was sourced from naturally occurring interactions of the elements with the physical features of the landscape....
There are practical considerations for the selection of sites. In terms of the natural occurrence of sounds there is a need for the location to be ‘open’ and therefore exposed to wind and water. Examples from rural or natural locations include; the frozen seas and lakes of Finland, the glacier region of central Switzerland, the Arctic Sea around Greenland, the volcanic landscape of Iceland and the sea and coast of the Scottish Islands .....”

3 LANGUAGE – a tool to communicate sounds?

While I sit at my laptop in my office overlooking the valley onto the Lancashire moors a flock of long tail tits invades my garden.

- 'typically **"tsee-tsee-tsee"** but also **"tsirrup" (**garden-birds.com)
- 'loud trisyllabic ***srih-srih-srih'*** .(wikipedia.org)
- 'a sharp **'tsurp'**, repeated several times' (bto. org)
- 'soft **"tsee-tsee"** calls or a rolling "**tsirr"**. (naturegrid. org)

Four possible descriptions found in a few minutes of quick internet search.
An even greater variety of call descriptions emerge if I include websites in foreign language in my search. In Germany they obviously sound like:

- Ein leises, meist dreimal vorgetragenes und sehr hohes **"sri**", manchmal schließt sich ein tieferes **"zjerp**" an (natur-lexikon.com) – a quiet, very high "sri", mostly repeated for three times, sometimes followed by a lower "zjerp"
- durchdringende **„zie"** oder „**iiez",** kurzes, weiches „**pit".** (nabu. de) – penetrating "zie" or "iiez" - short, soft "pit"

It sounds/looks like as if this little bird possesses a greater variety of calls than a single website can handle; or maybe those who describe the calls have some hearing problems or something is wrong with the translation of sound into language.

It seems to be most difficult to write down a little sound of short length and it is even more difficult to translate those expressions back into sound. They will be read differently by the majority of readers.

Sometimes, when I give a lecture introducing Sound Art to first year undergraduate Fine Art students I conduct a little experiment. I let them listen to a short excerpt of a sound recording (most often done by using a recording of a pick up microphone pushed into an ants nest) without telling them what it is. We then discuss what we've heard. Always a pattern emerges:

The sound is described by comparison to

- a familiar object (sounds like a wood fire...)
- a familiar action (sounds like scratching sanding paper...)

an atmosphere **or emotion** that the listener has experienced is regarded to be useful (that made me unconformable...)

physical or musical terms are sometimes used (references to volume, pitch, rhythm etc)

Most of these attempts rely heavily on visualization of a sounding event (object and action) Nobody ever had the ability (or the courage) to try to imitate those sounds.

In the end the students start guessing what it was they had heard.

Obviously, any sound is abstract, removed from his origin it does not carry any concrete meaning. Trying to communicate a sound to a non witness seems to be impossible.

Another experiment: As part of a Sound Art Symposium in North-West Germany in 2004 I confined myself for 24 hours to one room of the Art Institution that hosted the event. I opened all windows and doors and started to keep a diary of the sonic experiences of that 24 hours. During the daytime of my project one of the prominent sounds in the building were foot steps. In the attempt to 'record' these steps I began to establish a chart of all information required to describe the sounds of those steps as accurately as possible.

The person that moves		Constitution	weight, gender, fitness, age etc
		Mood – if known	a happy person moves different to a sad one
		Form of movement	walk, run, march, slurp etc
		Direction of movement	approaching, passing, withdrawing etc
The sounding components	foot	wearing	Barefoot, trainers, walking boots, high heels, slippers, etc.
		Material	Leather, rubber, wood, etc.
	resonator	material	Wood, stone, carpet, vinyl, grass, moos, ice, etc.
		condition	Grading, level, dry, wet, etc.
The environment		inside	Dimensions, hall, church, steps, etc.
		outside	Forest, meadows, beach, etc.
		character	Absorbing, echo, dry, etc
		General sound environment	Surrounding soundscape
The listener	Position of	Moving, distance	
	Mood of		
	Relation to mover		Stranger = neutral friend = happy expected foe = fearful
Further attributes of sound	Time of sound	length	
	Intensity		
	Volume	Measured: Dezibel	Felt: loud, quiet
	Course		
	Pitch		
	Sound color		
	Impact		

Applying this chart resulted in sentences like:
“ While I was sitting comfortably in my little room listening to the late dawn bird chorus and the wind gently moved the leaves in the young oak trees under my window a middle-aged man of around 12 stone wearing trainers with rubber soles came up the wooden steps leading up to my room. His steps rose majestatically in the huge stairways, heavy and slow. Was he carrying something heavy? Was he the one who brought the long awaited coffee and Black Forst Gateau?”

Besides the hilarious nature of such a construction it leaves questions; how do I know that the 'stepper' is male? how do I know his weight? his age? how do I know that the leaves that contribute to the soundscape in which I hear those steps are those of an oak tree unless I either see the tree or I am a rare expert that can recognize a tree by the sound of its leaves? – and what would I do if I would have this sonic encounter in an environment in which I have no knowledge of vegetation?

Again, my attempts to describe a sound through words are doomed to fail – or leave gaps.

Not all is lost, however – and that might be the beauty of the language / sound relationship.

If I can't resonate the sounds that I have heard in my 'audiences' ear then I can appeal to his/her imagination. By giving a mixture of objective and subjective information I can try to evoke memories of sound. This communication can only be creative and will always rely on fantasy and trust. Fantasy is required from both partners in this communication, first to translate the audible into words and then to find the sounding memories corresponding to the words.
.... and Trust, because whether or not my opposites really hear what I have spoken or written about resists all attempts of verification.

To hear a sound non witnessed, language serves as a tool to visualize the sounding event.
To know of the source of a sound helps to imagine.

One form of human expression that is more capable to achieve this than any other is poetry.

Listen to the well known Haiku of Matsuo Bashô

Furu ike ya
kawazu tobikomu
mizu no oto

Translated by R.H. Blyth	The old pond; A frog jumps in — The sound of the water.
translated by Lucian Stryk	old pond leap – splash - a frog
Translated by Cid Corman	old pond frog leaping splash

Here, a form is used that is appropriate; the immediacy and briefness of a haiku corresponds as well to the quick action of the frogs jump as to the sudden and short lived impact of the frogs landing in the water. This, and the precise description of the actual event that leads to the sound helps to establish a very accurate impression of the sound in the readers sonic imagination. The cause is known, the situation familiar, the sound imaginable.

I am confident I hear a water sound that follows a frogs leap –
however, can I be 100% sure that the splash I hear is the same as Bushos'?

4 SOUND COLLECTING METHODS

During my research I was able to archive and collect a vast amount of sound and sounding material.
Sound – any acoustic event experienced at the site. It is irrelevant whether or not that sound is actually audible or made audible by myself through intervention, manipulation or advanced recording technology.
Sounding material – evidence of sound collected in different media. A photographic image, for example, taken to document a situation in which an actual sound was experienced or that has been taken of the traces of a sound event has left is “sounding material”. I would like to give an example for this kind of photos: When I walked on the ice off shore Kangerlussuak on the North-West coast of Greenland I came across the traces of a huge bird that were left when the bird took off into the sky. First there were the traces of his feet and 60cm on each side the tips of its wings has left their marks, too. That was repeated after around 1 metre, just much more delicate. After another metre the feet traces were gone, only the wings had left subtle marks; and after two more trace marks only the slightest touch of the tips of the wings left the sounding memory of the flapping of the big birds wings. The photos of this traces are clearly resonating.

Thus any of my drawings, writings, photos, live performances, or other, can not to be understood and experienced exclusively in the traditional context of its genre but as resonating sound. Everything therefore is sound.

Any recording process means transformation of the “real thing” into electronically created signals. Removing a sound from its source not only alters its physicality but makes it difficult to identify because the visualization of the event is obsolete. The sound of a rustling leaf, for example, played back through a loudspeaker is generated not through the leaf but through the vibrating membranes of that loudspeaker – that means understanding what it actually is needs explanation. Following on from this experience and from understanding that any audio recording on its own can only marginally represent the sound of a site I collected and archived sound during my research using other media in at least equal measures; including drawing, writing and photography.

4.1 Drawing

Drawing proved to be a highly **appropriate** and very **successful** media to capture and document the sounding properties of a specific site.

It is **appropriate** through the immediate response of the drawer to the situation being drawn. The ephemeral quality of sound allows no hesitation in the drawing process. As soon as the drawer hears something he or she must make the decision of how to capture (draw) this acoustic event on the surface. There is no time to ruminate, there is no time to consciously select.
Selection is, however, unconsciously present in so far as sounding events take place while they are drawn. Thus subsequent sounding events might be overheard, thus not drawn.
One result of this condition is that any sound drawing can only be a highly subjective transformation.[1]

1Subjectivity in my research is not only unavoidable but utterly welcome.
No individual method of collecting sound is capable of representing a sound in its entirety. Accepting the “shortcomings” of those methods not only broadens my understanding of the philosophy of sound but requests even more creativity in conducting my research. I have to find a
range of collecting methods that are as diverse as the target. These methods depend on the environment and conditions in which my research takes place, on my experience and skills. I do not work in laboratory conditions, that means I can not rely on fixed parameters of environments and conditions. The same applies to my skills and experience – both develop, thus change. This in turn does NOT mean that later research results are more valuable than those I have

A huge degree of improvisation is required and desirable.
Any predetermined method of sound drawing will at some point fail because any split second decision to any unpredictable situation is best performed improvised.

It is **successful** because it reunites an acoustic event with its visual context.
A sound on its own (meaning without explanation or visual reference) represents 'nothing specific'.

I established (and still am refining) a method of sound drawings that is capable of representing the physicality, the sounding events and the atmosphere of one site in a specific time of sound. If the conditions allowed I produced drawing on site (which in certain places was quite difficult; -40º C is not a condition that is supportive to outdoor drawings).

In the moment there are four main categories of drawings:
- a basic, very raw outline of the landscape gives the frame for a description of sounding events
- a basic, very raw drawing of the landscape is used to evoke the sounding atmosphere
- a singular event is drawn to represent it's sound
- observations of events and situations support and illustrate thoughts of sounds

4.2 Writing

Writing very often forms an essential part of my drawings.

In some drawings I use writing to describe sounding events in various ways:

- explanation of the sound
- what sounds (the object or the action)
- how it sounds (volume, character, pitch etc.)
- experimentation with onomatopoeia
- Experimentation with various forms of creative writing (poems, sound poetry, lautmalerei..)

I keep also extensive diaries of my research travel.
These diaries not only reflect my actual research but also document experiences of a more general nature. There is a strong narrative and anecdotal element in my writing – thus they put my aural experiences into personal perspective. The context of the environments I put myself in is essential for understanding and valuing these experiences. How I hear and how receptive I am to the sounds around me depends on the conditions I am in.

4.3 Photography

Photography in the context of my research process serves three purposes:

- documentation of the context in which my research takes place in general
- documentation of specific sound events and of the situation in which sound recordings, sound drawings or listening posts were conducted
- document the visible traces of a sound event that I didn't actually experienced but that resonates through the marks that this event has left in the environment (on snow, ice, sand etc).

found in the early stages of my research (conducted with less skill). On the contrary, the sounds I have caught in a state of research "naivety" are potentially more genuine because my ears were likely more open to unfamiliar events. Creativity is subjective.

4.4 Sound Recordings

Sound recordings inherit surprises: very often, when listening back to a recording I don't hear what I've heard at the site, more often I hear things that I wasn't aware of when I was there. Microphones are democratic, they don't discriminate, everything that sounds is captured. We, however, have selective hearing, our brain controls the ears differently, it focuses on sounds that the brain considers to be important. To agree or disagree with the brains' decision needs training and conscious countermeasures.

An undisputed benefit of sound recording technology is its potential to make otherwise inaudible sounds audible. It facilitates creative interventions with the environment in search for further sounding properties.

Despite the benefits I concluded from my experience with sound in relation to sites and from my understanding of the limited potential of sound to represent a site, that I should use sound recordings mainly for reference purposes, for documentation and as potential source material for performances and concerts.

Of course, some of the recordings turned out to be more than 'just' reference material, documentation or inspiration for further work. They are beautiful in their own right and resonate the acoustic atmospheres of the places I visited. Some of these recordings have been released and published in February 2008 accompanying the catalog "the site the sound requires" Kerber Verlag / Germany[2].

5 APPROXIMATION

My aim to represent a specific environment through its sounds at a specific moment of time requires listening not only with ears but with all senses, and it means trusting the audiences' willingness and capability to imagine sounds through inspiration and imagination.

The only way to achieve this goal is to apply different media in ways as described above.
In the end I work with approximate values.

2 Lemke, Helmut (2008) *the site the sound requires,* Kerber Verlag, Bielefeld, Germany