reflections on process in sound

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Content

CRISAP
CREATIVE RESEARCH INTO SOUND ARTS PRACTICE

Editorial

By Iris Garrelfs

Dear reader,

Welcome to this first issue of *Reflections on Process in Sound*, a curated magazine which arose out of my research interest in the creative processes we engage in. It focuses on sound related activities but will also branch out into adjacent territories with the aim to provide a forum where artists can engage in discussions about how they create the work they do, what their practices are influenced by and how their ideas manifest themselves within the final artwork. Slippery work indeed!

This first issue offers a variety of themes and perspectives: an interview with Alvin Lucier, a survey of collaborative working methods by the *Sound & Motion Improvisation Research Group* in Helsinki, a reflection on audiovisual relationships in live performance, a discussion of a sound/sculptural work, an investigation of feminist strategies emerging from the *Her Noise* project and a short text on sonic materiality.

I would like to thank all contributors for their time, but also the inspiring conversations along the way. Thanks also to Cathy Lane, Angus Carlyle and Salomé Voegelin for their invaluable input. I'd also like to express my appreciation to Tony Herrington for opening the archive of *The Wire* and letting me use two images of Alvin Lucier. Last but not least thanks go to *CRISAP* for hosting this magazine and to Peter Smith for designing it!

London, September 2012

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Alvin Lucier

Interviewed by Louise K Wilson, Dartington College of Arts, Devon, November 2007

Louise K Wilson is a visual artist who makes installations, soundworks and videos. She has exhibited widely in North America and Europe. Recent exhibitions includes Re-sounding Falkland on the Falkland Estate (Scotland 2010, made with David Chapman). She is a part time lecturer in Fine Art at the University of Lincoln and just completed her doctoral studies at the University of Derby. She lives in West Yorkshire.
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Introduction

This interview with Alvin Lucier was conducted during the three-day festival of the American composer's work held at Dartington College of Arts in Devon in November 2007. Fortuitously for me – since I was researching his work for a section of my Doctoral Thesis – he was present to speak, perform and conduct workshops. My primary interest was in his influential work *I Am Sitting in a Room* so it was a tantalising experience to hear (and see) this performed live in one of the music studios at Dartington. The interview offered an opportunity to pick up on some aspects around both this work and other pieces that significantly prompt awareness of acoustical space.

Louise K Wilson: I approach your work as a visual artist (working with installation, performance, space and so on) and so was very interested in your seminar last night. You provided a very beautiful and evocative description – talking about seeing a monk praying and how this image prompted a chain of thought which then led to work. I was interested in the role of the visual and how that plays a part in prompting work.

Alvin Lucier: I don't want people to get the idea that I'm religious! It didn't have much to do with that, it had to do with thinking without distraction. The visual aspect of my work is more evident in the sound installations that I did in the 70's and early 80's. Installations are visual by themselves. You have to set things up and be very careful about what you choose and where you put things. I just do it, that's all. I didn't have any training in the visual arts, but *Music on a Long Thin Wire*, for example, simply consists of a wire stretched across a room, bisecting the room if possible, and attached to a couple of tables on either side with a magnet and an oscillator and some loudspeakers. Those are the elements of it. I set

them up as cleanly and elegantly as I can. The visual aspect comes in with the equipment and the set-up. I would never add anything to make a different visual effect. I don't care much about lighting.

LKW: So in composing or designing those pieces you said the visual is very important but then that follows from designing the acoustic effect?

AL: Well, I used to be a choral director and you're very careful about how the chorus looks on stage. You don't want anything that distracts from the audience's appreciation of the sound and music. You have all the singers holding the music the same way, so there's a symmetrical thing going on there. Everything looks clean and neat and well rehearsed and so forth. When you're on stage, you're on stage. You're not in the real world. I don't have much to say about it, I just do it.

LKW: I remember reading about *Music on a Long Thin Wire* that a shorter wire might have functioned better?

AL: It's hard to say whether it would have functioned better or not, I don't know the answer to that. Actually, I think that the longer the wire the better it responds. Anyway, the tension of the wire is extremely important. Each set-up is very different and you have to make it sound however long it is. (*laughs*)

LKW: And what about the body of the viewer in these pieces in terms of how you want them to move through and receive the work?

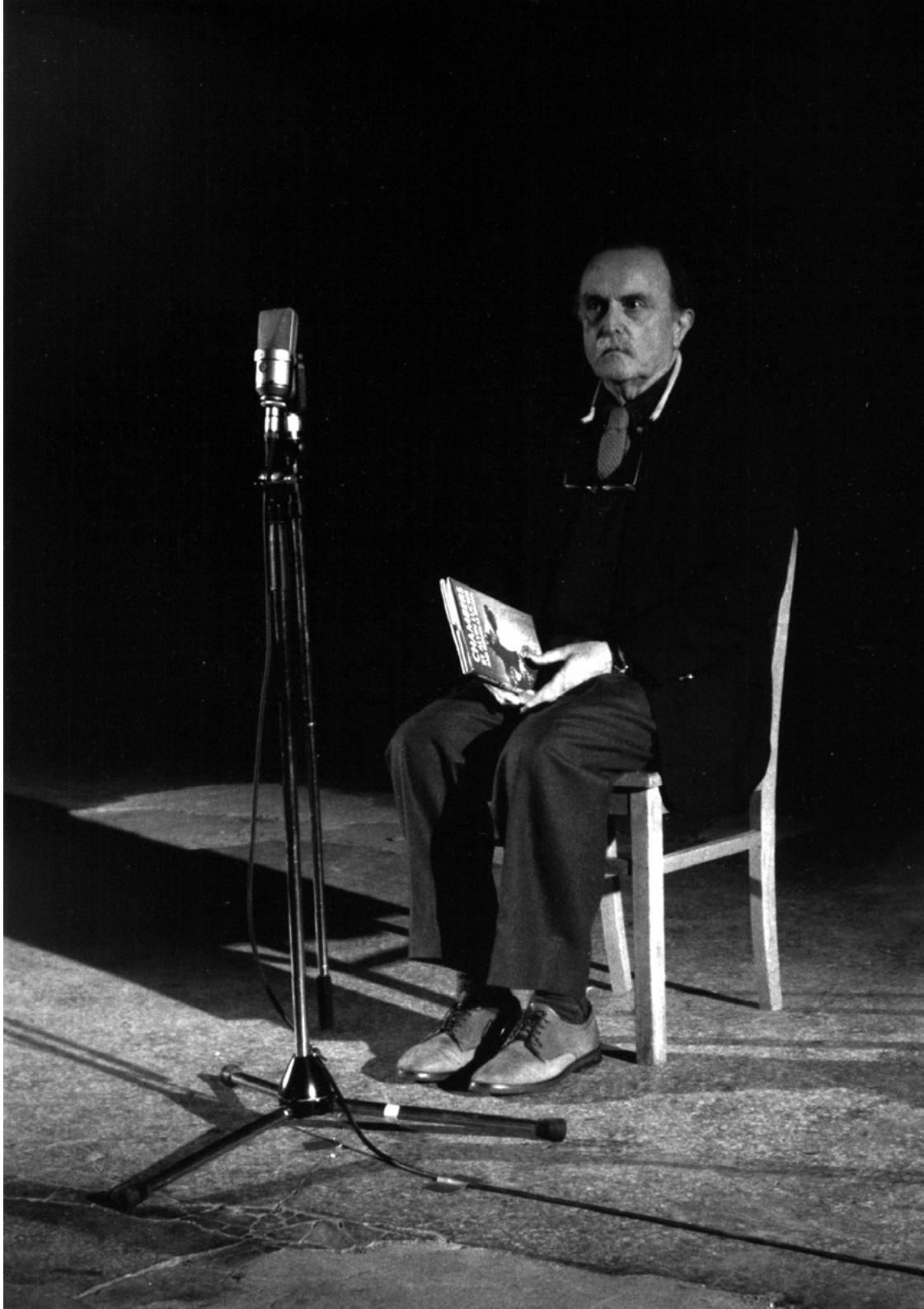

image of Alvin Lucier courtesy of The Wire

AL: Well, in a concert situation I want the audience to sit still. In an installation they can walk around as if they're in an art gallery. I don't really care as long as they don't disturb the equipment. Sometimes someone will come up and pluck the wire. I find that distasteful. The idea of most of my installations is that they go by themselves without human intervention and when a human intervenes, it seems to me it's a violation of the idea, it's just an egoistic manoeuvre on people's part as if to say "see what I am doing".

LKW: I'm very surprised that people do that.

AL: Once in a while. Now today during *Music for Pure Waves, Bass Drums and Acoustic Pendulums*, it was a difficult situation because it's in a lobby. I thought the student who set it up did very well. Then another student went up to him and asked how loud does it go, blah blah blah, asking him questions. I walked up to him and said please don't do this – it's a performance. You're turning it into a demonstration, a scientific show-and-tell. He was surprised, he felt he had the right to go up … it doesn't take much to make a performance out of a demonstration. It takes attention and focus on the part of the performer. You see how fragile that is. Occasionally somebody will walk up and pull the Ping Pong balls to see how they bounce. I hate it when that happens. It has nothing to do with the idea of the piece. But in a situation like this with the audience's milling about, there's no way to avoid something like that.

LKW: It seems to be there's been a lot written and discussed about your work, defining whether these are installations or performances. I suppose because I work with installations I'm interested in the way the viewer's body operates in terms of receiving information and other phenomenological aspects that come in through movement and an awareness of space which perhaps if you're seated operate in a different way?

AL: I don't think about that. This is off the track, but I remember the *Nine Evenings* show at the Armory in 1966 in New York. Do you know about that? The audience was sitting on bleachers looking at the performances going on in front of them. The Cage and Tudor performance set-up was placed down at one end. What do you call those velvet chains in theatres that don't let you go in? Anyway, there were these barriers between the audience and the performers. Just before his performance John had them taken down. Everyone got up from their seats, walked across the floor and crowded around the performers. The lighting was such that you could see the shadows of perhaps 500 people standing around, not seated in a postage stamp rectangular shape. It was gorgeous! How smart Cage was by simply removing the barriers, doing that one thing. It was just brilliant.

Years ago I made a solar installation in a savings bank in Middletown. I had mounted three solar panels in the glassed-in foyer of the bank. The bank president asked me to position them down low so people could wave their hands in front of the panels,

thereby altering the sounds. I said no, no, no, the idea is that the sun does that. In the winter the sun is at a low grazing angle so the sound is on more often than in the summer. You wouldn't think so but it's true. I said otherwise kids would come in and play with it. It's not a piece to be played as a game of "look at me". I said I don't want "look at me"; I want them to be aware of the sun and the rotation of the earth.

LKW: That's what came across last night strongly in your seminar was this beautiful balance or tension between what you're prepared to let go in your work and what is very rigidly defined. Brandon Labelle writes about your work and he talks about this aspect of "poetic science"– the nature of experimentation you have and I was interested in the shifting variables you employ. It came across last night when you were talking about *I Am Sitting in a Room* that by simply moving the speakers or microphone obviously the piece will change. I'm very interested in this notion of scientific experimentation and I think I read somewhere that you had – obviously – a keen and intense awareness of acoustic phenomena. How much you think it's really important for you to really get under the skin of the physics of that, how much do you really need to immerse yourself?

AL: Often I don't completely understand the physics. I was never very good in high school science, but even if I don't understand certain things I go ahead anyway and make works that reveal beautiful sonic phenomena. At a certain point you can't explain the physics completely. In school you supposedly learn why something happens but there's a whole other part that's mysterious.

When I was young, I went to a summer boy's camp in New Hampshire. The owner was a remarkable man. Once a summer he would dismiss us from evening dinner one by one – 30 seconds apart – and tell us to go to our cabins by a route that we never had taken before and to pay close attention to the sounds. Can you imagine that? This was in the late 1930's and early 1940's. And it was wonderful because as you walked through the woods by a different path you'd hear beautiful birdcalls and other woodland sounds. I think that in retrospect that influenced me a lot.

LKW: How old were you?

AL: I started at seven years old and went every summer until college.

LKW: So it came really from imagination rather than science?

AL: I think so, yes

LKW: Have you ever had acousticians or other scientific researchers commenting on your work and coming to you curious?

AL: Not so much. When I composed *Music on a Long Thin Wire*, I was co-teaching a course in acoustics at Wesleyan with physicist

John Trefny. It turned out he did most of the teaching because I didn't know the physics that well. He was more interested in the physics of musical instruments. His explanation of the Pythagorean monochord was the point of departure for *Music on a Long Thin Wire*. When certain composers make pieces that are highly documented with mathematical formulas, or utilize complex diagrams it seems to me those pieces are more about science than art, you know what I mean? A lot of artists feel they must do that to give credibility to their work. I don't feel that at all. I set up the wire – I didn't know what the value of my magnet was – I chose a thin wire and it just happened. The piece worked, that's all. I'm sure other artists would have thought more about the diameter of the wire, the exact tension. I don't care about the tension. I simply pull it to a point where the wire starts to vibrate, and that's it! (*laughs*)

LKW: Also reading about *Bird and Person Dyning* – I can't remember where I read it – you were talking about this beautiful phantom image…

AL: Did I talk about that in my seminar?

LKW: Yes, but I read it somewhere else, maybe in David Toop's book *Haunted Weather*?

AL: I discovered that by accident. You do a lot of things by accident. When you're ready to receive something you find it, you know what I mean? For *Vespers* I was on the lookout for some device with which to explore the acoustics of rooms and other spaces. I happened to meet a guy in a bar one night. He said he worked for a company called *Listening, Inc*. that was making hand-held pulse wave oscillators. I said what? And he lent me a prototype of a Sondol. Other composers at that time had similar ideas of exploring acoustic spaces. But I was lucky. Morton Feldman said there are a million wonderful ideas. It's how you execute them that counts.

LKW: Can we go back to scientific experimentation? One of the persuasive things that Brandon Labelle writes about *I Am Sitting in a Room* is the fact that it is… he is disputing other readings of it purely about the voice as the sound object and talking about it really in terms of psychology and perception and the importance of that. So I wondered what other reading or research, in terms of the psychological readings of the work, implicating subjectivity and so on, do you undertake?

AL: I don't do any reading in psychology or science for that matter. I read fiction. (*laughs*) I read mostly American and English writers. I like to escape into that fictional world. I went to Laos and Cambodia for a vacation in January and brought along a book by a writer from the *New York Times* following the Mekong River. It's the only non-fiction book I have read for a long time.

There is a series of short biographies published by Penguin, each no more than 150 pages. And it was wonderful. At the beginning of the series because they engaged writers such as Edna O'Brien

to write about Joyce, Elizabeth Hardwick on Melville. Then they got experts such as Jonathan Spence to write about Mao Tse Tung. Spence, a Yale professor, is arguably the world's expert on China, so of course what he wrote was accurate. His prose was admirable but wasn't scintillating. It was good academic prose. I loved the quirkiness of Edna O'Brien (she's an Irish writer) and I thought they spoiled their series by inviting experts. They could have hired some writer far removed from Mao. I look for writing that has a special quality about it.

LKW: Does fiction influence your work?

AL: I am not sure… it may in a way. I have been reading Samuel Beckett – there's a new edition of his work. I was reading *Malone* or *Molloy* and came across a paragraph that reminded me of Christian Wolff's music. Unfortunately I couldn't find the paragraph again. I felt it was as if the text went back on itself. It was quirky in a certain way that Christian Wolff's music is.

LKW: I thought that was a good question last night about rigorous methodologies and poetic titles.

AL: Yes, everything you do influences you.

LKW: May I ask you about *I Am Sitting in a Room*? Reading Nicolas Collins' notes, there were three versions. The first one was in a music school; the second two were in various places that you were living. I'm interested in that relationship with the space and the place of the recording not just in terms of the acoustic properties but if there are other contextual reasons…

AL: The first was a test recording in a practice room at Brandeis University where I was then teaching at the time. The other two have been home recordings.

LKW: Why was that?

AL: Because you can control the recording process over a long period of time. It took me two all-night sessions to record the second one. It's a personal piece too. If I did it in a studio… actually I did a lovely recording of it in a Swedish Radio studio, but since I've been doing them myself I have to have control of the environment so I've done them at home. (*laughs*)

LKW: Because he talks about it as a place for sitting and not for labouring (the home), so I wondered if it was more than that it was just accessible and practical.

AL: It's always the way I've done it, I don't think about it.

LKW: Does that ever become important? The contextual importance of a place, the memories it has? The associations, the histories?

AL: Mostly the acoustics! (*laughs*)

LKW: But I guess they're linked?

AL: I guess so. For the first home recording there was a thick rug on the floor and drapes on the windows, so the room was relatively 'dry' and it took a fairly long time to make it happen. The second recording was in my other house – not quite as 'dry' I think. Each place is different, I don't try to predict. Whenever I go in a concert hall to do a performance they ask if I would like to to see the hall. I say no, not until I go in to set up. What good does it do me, I can't change it. It's become a cliché I think. You go in a hall and clap your hands to hear the reverb. What good does that do? You simply set up your piece and perform it. I'm like a lumberjack; I go in and cut the tree down! (*laughs*)

LKW: But do you have anything you personally do when you walk into a space?

AL: I simply look around, that's all. When I fly to Europe from the United States I want to sleep, I'm tired! I'll see the space when I set up; then I'll make my decisions.

LKW: I want to ask a couple more things. I want to read out a quote from you: "I get an idea usually about a sound that is not yet realised – you don't know it yet – such as echoes or brain waves. To reveal them I have to work hard to put them in a form that allows them to reveal themselves and the magical quality they have without the interference of other ideas that don't fit in". I thought that was really beautiful, imagining an acoustic phenomenon, then trying to realise it. I just wonder if you could say a bit more about that process of imagining, reflecting on phenomena?

AL: Occasionally I read about some fascinating phenomenon in a newspaper or magazine article. If it sparks my imagination I explore it and put it in a musical context. I don't know about imagining. I guess I said this when I was doing electronic music. Now I'm more making music for acoustical instruments. Often I don't know how they're going to sound. I have an idea because I'm a composer but I'm often surprised. I don't know about imagining a sound, I don't know what to say about that.

LKW: I probably misquoted you. You didn't use the word "imagining" an idea about a sound and presume that's about reflecting on the idea of an echo.

AL: Maybe it's more than just the sound, maybe it's how the sound is made and where it comes from. *Vespers* has to do with echoes, that whole family of issues surrounding echoes, for example, how far you are from a wall, how fast the sound comes back to you, how the sound is different when it reflects off glass, plaster or wood. Everything I do is very practical about sound, do you know what I mean? Those are real echoes.

LKW: In terms of other associations those have – the echo in (Greek) myth?

AL: Actually, I was inspired by the echo sections in Monteverdi's *Magnificat*. I heard a performance of that piece in Venice in 1960 and was enthralled by the spatial imitations of those little forms. That was the same summer I saw Cage, Tudor, Merce Cunningham and Carolyn Brown perform at the Fenice theatre.

LKW: With *I Am Sitting in a Room*, I'm really interested in the nature of the recording technology that you use. That was touched on last night in a more pragmatic way – the question of the shift to the digital. I'm very interested in this version of the event and the recording at the time and the playback and I wondered if there's anything specifically around the mythology around recording technology – what could be captured, what's being lost…

AL: I just thought it was a way to store those sounds to play back, I didn't think about mythology in any way. Now we do it with the laptop. That's fine with me.

LKW: Does that change the quality?

AL: Not really, it's the room that changes the sound. However, there must be a difference between digital and analogue sound, but I can't hear it very well.

LKW: It must be extraordinary to derive a piece that has such iconic resonance, association. Does it tail you too much (that piece)?

AL: People are now sampling it and making other versions of it, using it in mixes and for other purposes. I say yes, go ahead, you can't stop people from doing that anyway. It's on the Internet; they can get recordings and so forth. In the score I say – I have it here as a matter of fact – 'make versions which can be performed in real time'. I said somewhere that these pieces are ideas for anyone to be able to use, so I don't care about owning them.

LKW: I find that really interesting. To go back to Brandon Labelle, he talks about the specificity of that piece when analysing it – about you and your voice, selfhood, specific of your voice.

AL: My voice has changed over time.

LKW: Would you re-record it?

AL: I'm going to do it in Frankfurt in a couple of years using a different text – that's part of the score too. So I'll have to choose a wonderful text that will be a challenge for me.

LKW: You won't write it yourself?

AL: I don't think so, maybe so… the stipulation is that it has to be different text.

LKW: One final question. The pieces this morning – *I Remember* and *Memory Space* – is the notion of memory. Does it recur frequently?

AL: I wouldn't do that again, *Memory Space* is a fairly early piece – 1970. I don't know how much I enjoy it anymore (*laughs*). The idea was that it was anti-improvisational. You do not improvise, you try to imitate exactly the sounds you hear so the group performances have a particular quality that free improvisations do not have.

LKW: It must be hard to police that?

AL: You can tell immediately if someone is improvising.

LKW: There's still an awareness of what the other people are doing.

AL: Yes.

Link to the Alvin Lucier performances at Dartington College of Arts: falmouth.ac.uk

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image of Alvin Lucier courtesy of The Wire

Working Methods

of the Sound & Motion Improvisation Research Group, Helsinki

by James Andean and Marianne Decoster-Taivalkoski

Abstract

James Andean and Marianne Decoster-Taivalkoski reflect on the collaborative creative research methods of the *Sound & Motion* research project at the Centre for Music & Technology, Sibelius Academy in Helsinki in Finland. The group includes a variety of sound and movement professionals and the paper discusses how joint collaboration strategies can be developed that address free improvisation in music and dance.

James Andean is a musician and sound artist active in a range of fields, including electroacoustic composition and performance, improvisation, sound installation, and sound recording. He is a founding member of improvisation and new music quartet Rank Ensemble, and one half of audiovisual performance art duo Plucié/DesAndes. He has performed throughout Europe and North America, and his works have been performed across Europe, North America and Asia. He is currently completing a doctorate in acousmatic composition at the Centre for Music & Technology of the Sibelius Academy, in Helsinki, Finland.

Marianne Decoster-Taivalkoski is a French interactive media and sound artist based in Helsinki where she teaches at the Centre for Music & Technology, Sibelius Academy. She is a founding member of the interdisciplinary improvisation research group at the CM&T with musicians and dancers and a Member of the electroacoustic music group Aquatrio for live water sounds and live electronics. Her work with sounds follows an experimental and phenomenological approach, focusing on the physicality and materiality of sounds in specific spaces and places and how they arouse in us dynamic, sensual and material images.

improvisationrg.wordpress.com

Introduction

Sound & Motion is an artistic research project of the *Improvisation Research Group*, based at the Centre for Music & Technology of the Sibelius Academy in Helsinki, Finland. Since 2011 this project has been exploring the intersection of free improvisation in music and dance, including issues relating to cross-disciplinary improvisation, perspectives from each discipline, general improvisation strategies, and strategies for communication and collaboration between musicians and dancers. Through our collaborative research, we have begun to form an understanding of the differences in perspective between the two disciplines, and effective strategies for collaborative improvisation and performance.

The group's members come from a range of backgrounds and traditions. The 'sound' side includes instrumentalists, live electronics, and sound artists, while members on the 'motion' side come from dance, contact improvisation and mime, as well as broader forms of expressive bodily movement. Touchstones in terms of starting perspective include free improvisation, electroacoustic music, contemporary music, sound art, contact improvisation, and new dance.

The work group's members are James Andean, Andrew Bentley, Beniamino Borghi, Giorgio Convertito, Marianne Decoster-Taivalkoski, Gaile Griciute, Elina Lajunen, Kirstine Lindemann, Libero Mureddu, Ulla Mäkinen, Carmelo Nesci, Alejandro Olarte, Davide

Panizza, Linda Priha, Charalampos Pazaroulas, Kalev Tiits, plus numerous friends, guests, and visitors.

Goals of the research

Many of the group's members are active in the Helsinki improvisation scene, with dancers and musicians/sound artists regularly collaborating. The research group was born in part from a desire to develop and perhaps move past and over certain recurring stumbling blocks, including for example:

- dancers and musicians working as distinct groups, each group producing and focusing on their own material without much interaction with the other;
- one of the two groups dominating, either through habit or a difference in number of participants in each group;

- situations in which an improviser is tempted to blindly take up the entire space and duration, failing to understand what others are proposing; and so on.

Another of the group's intentions is to contribute to the academic discussion concerning multidisciplinary improvisation, and to help in the development and sharing of knowledge in this field with the broader community of researchers and practitioners. The group seeks:

- an understanding of the differences in perspective between the two disciplines;
- effective strategies for collaborative improvisation and performance;
- to deepen our collaborative process;
- to move past collaboration in which dancers dance 'over' or 'to' the music;
- to forge a unified performance which bridges and fuses the two genres, through a sharing and fusion of perspectives, goals, and techniques;
- the capacity to break down our identities as 'musicians' and 'dancers', becoming instead agents collectively expressing an idea (or web of ideas), with the fact that some are expressing this idea through sound and some through motion reduced to a semantic detail.

Working method

The group's working method involves a very liberal interpretation of the term 'artistic research'. No particular stance was taken regarding our definition or interpretation of the idea of 'artistic research', in large part because this would run somewhat contrary to the group's workflow and methodology, but also due to the more general fact that the term is not one that can be strictly defined. That said, the points brought to light by Michael Schwab in the first editorials of the *Journal for Artistic Research* are all present in the group's approach to artistic research: its transdisciplinary and transpersonal character, its transformative nature, and the artistic and intellectual challenge to convey that research is taking place even where no approved methods or criteria are given (Schwab, 2011a and 2011b). Other theoretical touchstones appropriate to the group's methodology include action research[1] – specifically as regards the group's work cycle, and with particular reference to participatory action research[2] – as well as qualitative research more generally[3]; however, it must again be stressed that these were not directly referenced by the group during the working process, but rather observed to be similar to the group's self-determined methodologies, either in spirit or in execution.

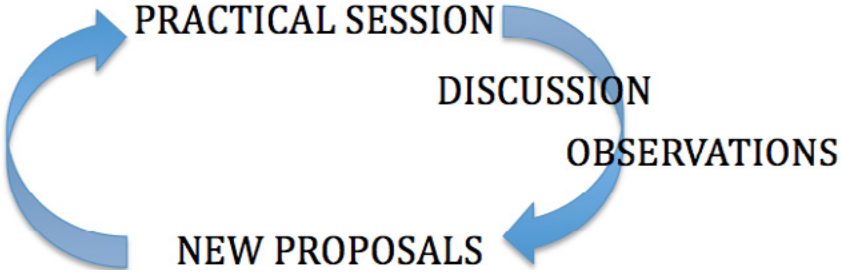
Our methodology is largely organic and self-organised: rather than impose a pre-determined approach or procedure, the

1 See Lewin, 1946 and Stringer, 1999.
2 See McIntyre, 2008.
3 See Denzin & Lincoln, 2005.

group's working method developed naturally through practice. All members of the group have an equal opportunity to make proposals, regardless of level of experience in the field; there is no 'lead' researcher imposing a working plan or directing the team. The composition of the group differs somewhat from session to session. A core group is consistently present, joined by 'satellite' members who participate with less regularity, offering variety and fresh perspectives.

Group sessions generally begin with a free or open improvisation of about 20 minutes, without a specific theme or goal, that acts as a kind of 'warm-up set', in order to discover what material might be produced together, where difficulties are perceived, and what challenges are met. This is followed by discussion of the improvisation which just took place, as well as themes and ideas from previous sessions to be explored and developed over the course of the current session, together with new ideas. Analysis, observations, and outcomes of the exercises and improvisations together constitute a knowledge that is then used to design new exercises, or to propose new performance strategies. These are then explored either immediately, or at a future session. There is thus rarely a detailed plan prior to the session; instead, group members can propose ideas to work with during the session, with the group either adopting one of these proposals, or coming up with a new one through group discussion. Proposals that are not selected for the current meeting are often saved for future sessions.

Such proposals generally stem from previous experiments, and from the analysis and discussion that have resulted, and often take the shape of directed exercises or experiments specifically designed to explore in greater depth one of the themes, issues or questions raised in discussion. These exercises are then discussed and analysed, focusing on those parts of the experience highlighted by participating members, rather than attempting any exhaustive or definitive analysis. Rather than stick to a predetermined, systematic agenda, the group follows the path indicated by the ideas that emerge from discussion and practice; the resulting method is thus experimental, practice-based, and constantly evolving.



Over the course of the first year, the group became increasingly focused on the design of exercises to assist in the exploration of very specific issues and situations, and the search for answers to increasingly specific questions. However, it is arguably impossible to expect decisive 'conclusions' to result from this project; rather, it is an endless process of discovery. Observations, rather than

leading towards fixed conclusions, instead generate new questions and directions for inquiry; results are fed immediately back into the process.

The reiteration of this cycle of 'experiment/observation/discussion/new experiment' leaves in each participant an imprint of a shared experience. Although each member of the group has a specific and individual experience of a given improvisation, the ensuing discussion and analysis allows for the sharing and confirmation of these experiences, and helps to identify potential differences in perspective. The group exchanges ways of perceiving and understanding a situation, and of naming and labelling experiences and sensations, a sharing of views which allows for new levels of interaction. When a similar situation arises in a new improvisation, whether deliberately or by chance, members are able to recognise it and to respond accordingly, taking into account their previous experience and the knowledge gained and shared through discussion. In the heat of performance, the thought process is extremely rapid, and action seems driven more by intuitive impulse than by fully conscious reflection; however, the collective sense of a mutual meeting point is very strong and shared by most of those involved. The group's reiterative working process sometimes allows for the formation over time of a sedimentation of collectively learned material, which is used intuitively, more or less unconsciously, in new improvisations. In this sense, members of the group share, little by little, forms of communication and interaction that have been discovered and constructed together,

and which involve the embodied knowledge that each has carried over from her or his own field and background.

Meetings are thoroughly documented; sessions are filmed, allowing the possibility to return to particular elements of a given discussion or performance, and field notes are taken during discussion and analysis. However, the group relies more heavily on participants' experience and memory of these situations, improvisations, and discussions, as we are more closely concerned with subjective impressions of process, of which video offers only a poor representation, than with precise documentation.

Exercises/Experiments

The following are offered as brief examples of the experiments performed during the group's meetings:

Gesture
Dancer/musician pairs attempt to unify musical gesture and danced gesture, using a range of strategies:

- literal: using equivalent physical gestures to produce sound and motion;
- abstract: sonic arc and danced arc are matched, creating the same phrasing;
- metaphoric: more interpretative, symbolic, etc.;
- further strategies – embodied, narrative, abstract, coded, etc.

Sounding dancers, moving musicians
A number of attempts have been made to blur the borders between the two groups, including:

- exchanging roles;
- integrating roles: sound-producing motion, motion-producing sound;
- having musicians incorporate movement in, through, and across the space.

Re-enactment
Upon completion of an improvisation, performers must attempt the exact duplication of that performance.

This experiment reveals how performers structure a performance, through the points they focus upon in recall: what constitutes an "event"? What points are significant? Further, the collective attempt to recreate leads to mutual recognition of unifying elements, as well as opening up discussion of issues such as embodied memory, oral memory, narrative memory, abstract memory, and so on.

Floor lines
For this experiment, lines are drawn across the floor in tape. Musicians must change some element of their performance anytime a dancer crosses a line. This task provides a concrete focus to the attention and interaction between musicians and dancers, as well as adding a playful level of unidirectional control to the interaction.

Observations
Comments raised during discussion and analysis regularly return to a number of central themes, which coalesce over time to become key concerns of the group's research. While some of these are concerned with the act of improvising itself, many are more specifically directed at differences in approach between dancers and musicians – as performers, as creators, and as thinkers. Differences between auditory engagement and visual engagement, for example, have been identified as key elements which result in significant differences in approach to improvised performance. Another key example is perceived differences in the relationship between performer and ensemble: a dancer is forever a discrete unit, bounded by the physical limits of their body, where sonic

performers may easily dissolve their performance identities into a single entity. As a final example, significant differences in the vocabulary used to describe a performance led to insight regarding an important difference between dancers structuring their performances spatially, as 'events-in-space', and musicians tending to structure their performances temporally, as 'events-in-time'. Similar vocabulary differences which have led to valuable insights include differences in the use of terms such as 'composition', 'theme', 'engaging', 'leaving space', 'entering', 'exiting', and so forth.

Typically, the group's broader assertions stem from casual comments made by participants on their experience of a completed improvisation, which may form a pattern or recurring theme, and allow for the evolution of broader theory. In the case of auditory vs. visual engagement, for instance, observations of performer behaviour – where a given performer chose solo expression over the group expression being prioritised by other group members, or where a performer or group of performers were unaware of a particular contribution from elsewhere in the group – led to the identification of differences in behaviour patterns between dancers and musicians; these are targeted and explored in more directed performance exercises, finally allowing the group to make stronger statements regarding possible root causes for the observed behaviour.

Conclusion...?

No attempt is made in the group to draw definitive conclusions. Instead, observations, rather than leading to conclusions, are used to directly construct new hypotheses. Thus our questions don't lead to answers; they do, however, help us to develop as a group, recognising and sharing a growing set of concepts and methods together. It is tempting to imagine that such a process might eventually lead to new processes, or possibly even to the eventual formation of its own genre.

It should be stressed that our research exercises are not effective performance strategies, as they tend towards monodimensionality. Performances deemed more 'satisfying' tend to be those with sufficient 'multidimensionality': multiple levels on which interaction takes place, and a sufficient level of sophistication in this interaction. Our exercises have, however, made us better performers: more aware of the potential of the situations we construct, and thus able to make decisions and choices among a larger field of possibilities, by focusing on and developing specific issues. Thus the impossibility of arriving at definitive research "conclusions" is compensated for by the knowledge we gain as performers, as improvisers, and as collaborators.

Improvisation Research Group live at MuTe Fest in Helsinki, Finland, March 2012

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D-Fuse are a London-based artist collective who work across a range of media. Founded in the mid-1990s by Michael Faulkner, D-Fuse's output encompasses installations, film, experimental documentary, photography, live cinema performances and architectural projects. Beginning in graphic and web design and VJing, D-Fuse's work has evolved to address social and environmental themes and explore collaborative processes.

Besides work with groundbreaking musicians from a wide range of genres including Steve Reich, Beck, Hauschka, Scanner and Swayzak, much of D-Fuse's output since 2004 includes sound and music by audio director Matthias Kispert. Their work has been shown internationally, including Sonar [Barcelona], onedotzero Festivals, Eyebeam and TriBeCa Film Festival [NYC], SFMOMA, Prix Ars Electronica [Linz], MU and STRP Festival [Eindhoven], Lisbon and Valencia Bienniale, Moscow Architectural Biennale, and many others. The D-Fuse-edited book *VJ: Audiovisual Art and VJ Culture* was published by Laurence King in 2007.

dfuse.com

Audio-Vision in Realtime

Evaluating the Working Process of D-Fuse

By Matthias Kispert

Abstract

This paper investigates, from the inside perspective, the rationale as well as the working processes that are integral to the audiovisual work of the artist collective D-Fuse. After initial reflections on the relationship between image and sound, the production of materials for live performance pieces is considered, followed by a discussion of the preparations for and the interactions during live performance. Rather than descriptions of technical details, set-ups or working methods, the text offers reflections on why and how choices are made in a collaborative process, which leads to the development of a performance piece that is malleable and receptive to spontaneous interaction between performers and their digital interfaces on stage. From the range of work that D-Fuse's output encompasses, this text is particularly concerned with the collaborative work of the author Matthias Kispert and Michael Faulkner. vimeo.com/17333682

Introduction

At the time I joined the D-Fuse collective in 2004, the group's output was undergoing significant changes. D-Fuse was started during the heyday of analogue video and early web animations, and when in the 1990s digital video technology became more affordable, a distinctive style of abstract graphics and visual animations appeared. Eventually, at the time of my arrival, D-Fuse started to embark on a journey through various modes linked to documentary and film essay, working with real-life footage of urban life that we were collecting in cities across the globe. Since then our work concentrated on single-screen video, video installations, and most of all on live cinema performances, while lately the more graphical style is also seeing a return.

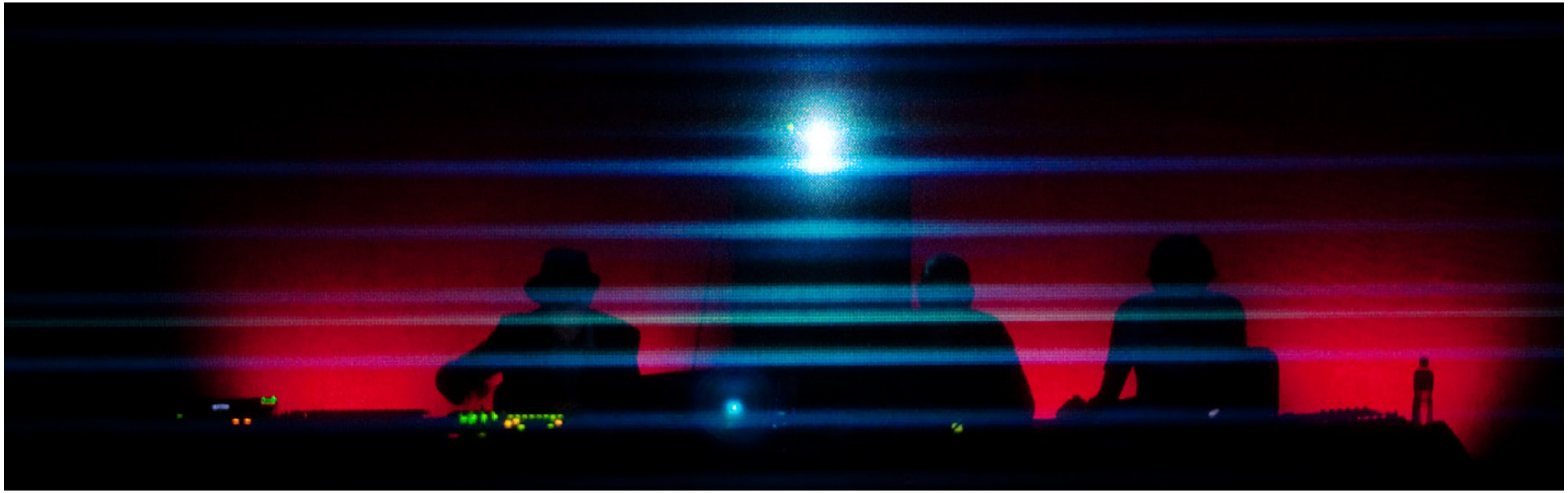
Our approach has always been focused on the content rather than form, that is, what is shown and the reasons for it. The forms that the work takes have appeared out of the process, guided by impulse more than analytical decision. Which is why it might be all the more interesting to ask some questions about the mechanisms behind how these decisions are made, decisions affecting how material is ordered, how our audiovisual language comes into being.

Coming from the field of electronic music, I am mostly responsible for the audio part of our work. I have long held an interest in field recording and the sculpting of the resulting sound matter into musical forms in the manner that was pioneered by Pierre Schaeffer and the *musique concrète* composers that followed in his wake. One sound source that I have become particularly fascinated with is the electromagnetic transducer, which translates electromagnetic radiation into audio signals. This is providing much source material, which is transformed into dense textures, rhythmic structures, and deep bass tones. These sounds are usually combined with extensively processed recordings of everyday urban life as well as music recorded on location during various residencies or journeys. Sounds from synthesizers or pre-made sample libraries very rarely appear in my work.

Being responsible for the sound element does however not limit my tasks to dealing with the audible realm only. Concepts for projects are developed in collaboration, and in the dialogue between audio and video during production as well as performance, the influences between these two realms of perception are flowing continuously, where at any moment sound may take over and lead the visual in a new direction or vice versa.

What comes first–the Image or the sound?

In biblical myth, the world began with a sound, a word was uttered and it started the process of everything in existence coming into being. This story of creation points toward an ancestral hierarchy of the senses where hearing is at the centre. Over recent centuries however, the visual sense has taken over as the primary source of information in Western culture. Audiovisual media present a case where both senses are activated, and in this case either



sense can take precedence over the other, which can lead to very different outcomes.

In what film sound theoretician Michel Chion terms the *audiovisual contract*, sound synchronised with a moving image creates an *audiovisual illusion*, where the sounds seem to naturally emerge as a result of actions that are happening in the narrative space of the film (1994, pp. 3-24).

This is indeed true by and large for narrative film but audiovisual live performance presents a more complicated set of interrelations between what is seen and what is heard. Here multiple aspects need to be considered, aspects that are linked to narrative modes that are closer to the musical and the poetic, as discussed by Chion (ibid, pp. 165-168) in relation to music videos or by live cinema artist Mia Makela in her paper *The Practice of Live Cinema*, which is one of the first published articles on the subject of live cinema (2006).

One important distinction in this regard appears simply from the order in which sound and image are put together, from the choice of what comes first and what follows. In traditional film, it is the image that is edited first, with the sound mix being created in later

stages of post-production. In this mode, sound provides what Chion calls *added value:* it creates the impression that it '"naturally" comes from what is seen, and is already contained in the image itself' (1994, p. 5). Behind the viewer's immediate association between actions on screen and their sound effects lie a multitude of creative decisions and interventions in the editing process. Sound effects are not only chosen because they represent a realistic simulacrum of the actual sound of a given action, but to a good part because of the dramatic effect they imprint onto what is seen.

The obvious example that comes to mind here is that of a punch, the sound of which is exaggerated out of all proportion in many films. Thus beyond appearing as a natural product of an action on screen, sound also *interprets* the action by giving it the sense of certain weight, physical force, and presence among everything else that is happening at a particular point.

This sense of interpretation can go even further, for example when one chooses to combine clearly unrelated sounds with actions on screen, often to a comic effect, such as in the soldier sequence of the D-Fuse video *Brilliant City* (2004), where the jarring movements of training soldiers are synchronised with the sound of a hand-operated printing machine, recorded in a workshop a few floors below the studio we were working at in Shanghai. Here the thumps of the mechanical apparatus are divorced from any semblance, however far-fetched, of the sounds of the actions of the soldiers, while the connection to their stiff postures and obedient mindsets is readily apparent. In a case like this the interpretative function of sound is laid bare without any pretense of semblance to an actual event on screen. Like a narrative film, *Brilliant City* was edited video first and sound later, a rare exception in D-Fuse's output.

Film still from 'Brilliant City' by D-Fuse

If we consider the second way of editing, where images are synchronised to sound, a very different picture emerges. To begin with, any attempt at creating a believable impression of a real-life event is pretty much rendered impossible, because of the different tools available for editing sound and video, but also due to the different nature of aural and visual perception. Sound is more ambiguous, malleable and multi-layered, while elements in a visual image are clearly delineated and identifiable. Thus sounds can easily be sculpted to follow a moving image sequence, but reshaping (real-life) moving images to follow a sound sequence

is an almost absurdly difficult task. Considering the example of a recording of footsteps, for example, it would be close to impossible to create a film sequence that would match the exact movement suggested by the sound, unless perhaps through animation or complex digital re-timing of a recorded film sequence. The reverse situation on the other hand, where sounds of footsteps are synchronised with images of walking feet, is common practice in film production.

This means that, when sound comes first in the editing process, the synchronisation procedure that images undergo in response follows a very different trajectory: in an image, everything that can be seen is readily apparent, whereas sound appears always layered and mixed, with different elements partly obscuring each other. Sound cannot be broken down into its component parts as easily as images, its details are rather more fleeting and ambiguous.

As a result, when basing an edit on sound, the visual accompaniment takes on a similarly ambiguous form, exchanging a clearly delineated narrative for a storyline that could be described as musical or poetic. Pulses, rhythms, jump-cuts, washes of colour, abstract graphics, arresting vistas are all ways in which moving images *perform* sound in a continually shifting movement between meaning and form.

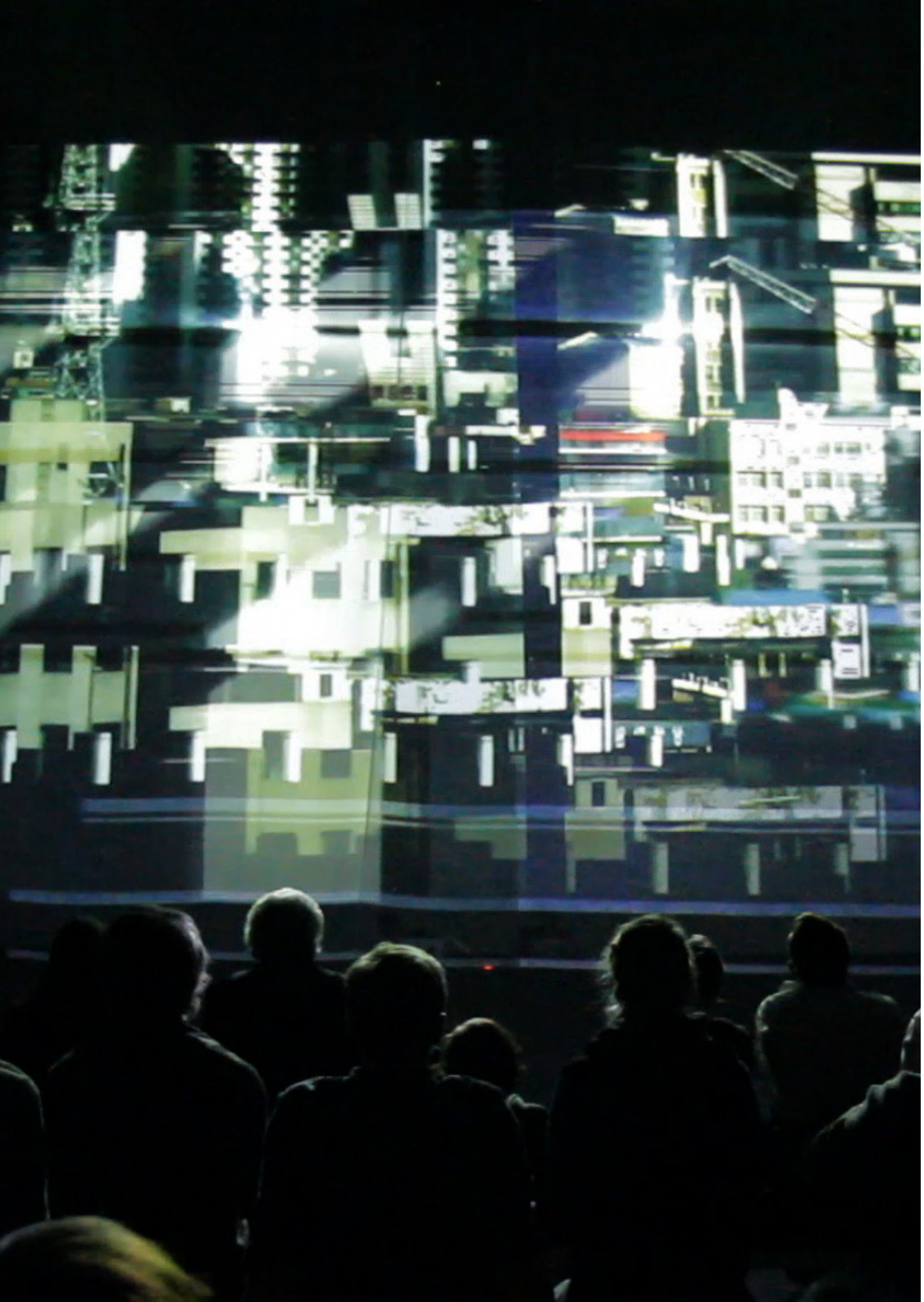
Chion has vividly observed an interesting paradox in relation to this: in some ways music videos, despite their emergence from sound, are closer to silent film than traditional sound film, as the images are freed from the constraints imposed by linear narration (1994, p. 167), a freedom that is further extended in practices such as expanded cinema or live cinema, for example[1].

Having outlined these two opposing poles of sounds interpreting images and images performing sounds, how does this play out in the work of D-Fuse? The simple answer to this is: somewhere in-between, our process works with an essentially dialectical relationship between images leading sounds and sounds leading images, which is not either/or but a synthesis of both. We rarely work simultaneously in the same physical space when producing our pieces, therefore files are transferred back and forth via the internet and by the end of the process, after multiple versions and iterations, it is often difficult to pinpoint how exactly the process started. How these interrelations play out during performance will be discussed later.

Structures and Strategies in Production

This open-ended conversation between image and sound as examined above underpins all of our live work. What follows in

1 The practices of expanded cinema and live cinema have much in common, such as an emphasis on performative aspects and a move beyond such constraints of the cinematic form as single-screen projection or the yoke of the narrative. What mainly sets them apart is their historical genesis: Expanded cinema developed out of the practice of experimental film makers of the 1960s and 70s, while live cinema is a term coined in the 2000s by artists who came from the field of VJing and who were looking to move beyond visualising music to consider their work as an artform in its own right.



this section is a discussion, by no means exhaustive, of different strategies of how we work on the development of particular elements of a piece.

Overall temporal dynamic development

In this regard we are taking our cue from strategies for musical composition that are used, for example, in much classical music. Considering the dynamic development (loud/quiet, intense/calm) in particular, we might draw a graph, for example, showing a line that starts low, gradually increases to a first peak, then subsides again and reaches a second peak later, after which it descends to the end. This is how much traditional composition is still structured: introduction, build-up, one or multiple peaks, with the final and most intense moment just before the final descend to the end. A piece like our performance *Particle* somewhat turns this sequential order on its head, by almost completely abandoning any initial build-up and instead enveloping the audience in visceral layers of sound and light right at the beginning of the show. There is nothing like a little surprise at the start to captivate the audience.

Visual narrative

Both the overall narrative of one work and its individual sections might follow a specific visual trajectory, for example a move from abstraction to realism, from night to day, from architecture to inhabitants. We see these as simple guidelines and structuring devices to help with the selection and grouping of material. However, at times not even this already fairly reduced conception

of narrative is employed, leaving the structure to follow along other trajectories (dynamics, visual interactions, etc.).

Conversation and interaction of visual elements
The more interesting aspect, also related to narration, lies in the relations of meaning that are developed between different elements when they are combined, either in temporal succession, or occupying the same screen space concurrently. Most of our filming is unscripted and footage has been collected in the spur of the moment in unfamiliar environments. This brings with it the challenge of constructing a somewhat coherent piece out of what can be very disparate elements. Sifting through the material, connections often appear spontaneously: it is as if decisions are already imprinted on the footage and waiting to be discovered, through thematic groupings, meta tags, visual similarities or contrasts, moves from the general to the specific or vice versa, temporal movement or stasis, and probably most of all through tensions revealed between different elements of what is seen.

There are multitudes of theories about and strategies for editing, of which Eisenstein's much-referenced concept of montage is probably the most fertile for our working strategies:

> In my view montage is not an idea composed of successive shots stuck together but an idea that DERIVES from the collision between two shots that are independent of one another. (1988, p. 163)

New interpretations can appear out of the combination of disparate elements. While Eisenstein goes on to list examples in which montage conjures up very particular effects (ibid, pp. 172-180), we tend to leave this more open-ended. We do consider what our on-screen assemblages might suggest, but also leave room for audiences to find their own interpretations.

Audiovisual synthesis
Eisenstein as well as other film theorists, show great interest in the idea of *audiovisual counterpoint*, which is a notion that Chion, probably rightly so, refutes as somewhat of a misnomer (1994, pp. 35-39). Counterpoint in music, where the term is borrowed from, refers to the individuation of concurrent voices over time, while the momentary concurrence that film writers generally use the term for, would in musical matters correspond to issues of harmony or dissonance instead.

In regards to our process, it might be enough to talk about synthesis, the bringing together of different elements to create a new whole that is more than the sum of its parts. There are myriad strategies for combining sound and moving image, and this is one of the more difficult aspects of our work to approach analytically, because for the most part the sound-image relationship comes into being in quite an intuitive fashion. This has been the case since we have started to work together, when the combinations of sounds and images just seemed to fall into place by themselves.

Combining sounds with visuals and vice versa with intuition as the main guide does bear some semblance to synesthesia and its involuntary transgressions across sensory boundaries. There is perhaps some relation between synesthesia and the spontaneous appearance of mental connections made in our working process: Often when looking at a video clip I can imagine pretty clearly right away what kind of sound it invokes. The associations appear on the spur of the moment, but certain patterns are recognisable: Texture, brightness, rhythm, speed of movement, size, spaciousness, for example, are all parameters that can be applied to sounds and images alike. These characteristics all relate to a physicality that is suggested by the content, and this goes some way towards explaining why some combinations appear more appropriate than others on an intuitive level.

Space

The sounds produced for D-Fuse performances come from a concern with creating and enveloping a space: a space for the audience to inhabit and explore with their listening, as well as a space for the visuals to unfold and move through. We are looking for a visceral quality to sound, one where it engulfs bodies, penetrates the pores of their skin and vibrates their cells on the inside. We do play loud at times, and good subwoofers are essential for full sonic effect during performance. A gratuitous addiction to volume can lead down a slippery slope of endless amplification of sonic force, but we are interested the sublime rather than the belligerent effects of loud sound.

Achieving this sensory intensity while at the same time leaving room for the audience as well as the images to breathe requires a careful balancing act. Aural space needs to be analysed according to different properties, each with its own continuum of magnitude: soft to loud, low to high, thin to dense, static to rhythmical, abstract to concrete. This analysis provides a framework for isolating or combining the development of different sonic parameters in order to achieve maximum effect without overload. What emerges from this is not a set of rules for composition or performance, but rather a method for understanding sonic processes that arise from the combination of disparate materials of mostly extra-musical origin.

The interplay between abstract on the one hand and concrete, identifiable sounds on the other creates an interesting line of flight out of what could otherwise be a completely imaginary sonic space. Rather than functioning as a sonic backdrop with additional illustrations of real-world references on screen, the way we combine these elements aims to open up a connection to what urban theorist Edward Soja calls *Thirdspace*, where

> … everything comes together… subjectivity and objectivity, the abstract and the concrete, the real and the imagined, the knowable and the unimaginable, the repetitive and the differential, structure and agency, mind and body, consciousness and the unconscious, the disciplined and the transdisciplinary, everyday life and unending history. (1996, p. 57)

For creating these spatial qualities of sound we rely mostly on the compositions themselves, through the qualities of the sounds used and the multi-layered character of the arrangements, rather than using multi-channel sound systems. In general, few of the venues we perform at are equipped for anything more than stereo playback, although when given the opportunity to play through more than two sound channels we always make use of it.

Like sound fills the performance space, the visuals also expand out into the space in various ways: We usually project video on multiple screens, which might show a separate image on each screen or a single picture stretched across a larger canvas. At times individual screens are subdivided into multiple image spaces, and often we use transparent screens to break up the projection into several layers and give it spatial depth. All these operations lead to a further complication of the relationships between different images, as we are now dealing with potential simultaneity instead of only temporal succession, changes in frame size, as well as layering of images. In addition, the three-dimensional depth of the image brings its physical presence closer to the way sound immerses space.

Taking it apart and…

Many of the elements of our performances are pre-selected, prepared, and worked on with the view of becoming part of one continuous piece, while always keeping in mind that this piece is in a perpetual state of development, subject to change, to spontaneous reconfigurations during performance, and to larger ruptures as the work undergoes multiple versions and re-edits.

When we enter performance mode, we take previously prepared sequences apart again, split them into separate elements that can be recombined. We spontaneously add extra parts to augment what is there already and prepare a timeline so we don't lose track of the overall development of the piece.

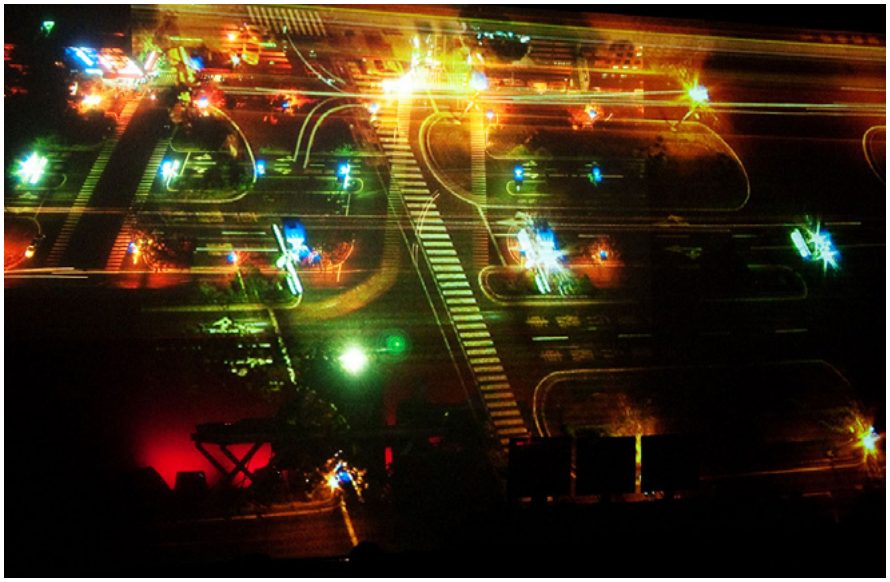
The timeline breaks the performance into around 5 or 6 larger sections, each with its own subdivisions. There is a general

guideline as to how long different parts are. The timing is flexible to an extent, but also dependent on how much material has been prepared for each part. The larger sections are usually based on a particular visual theme, with a specific audio composition to play throughout the section. Video files for each part are grouped together, and the audio arrangements that have been created for each section are split into several layers and segmented into loops that can be recombined during performance. The layers are typically divided into categories such as rhythmic elements, bass sounds, textures, and real-world sounds. The audio loops are prepared with a particular temporal succession in mind, although this order is often modified on the spur of the moment during performance.

Then there are effects that can spontaneously be applied to audio loops as they play, separately on each of the eight tracks that can be active at any one time. These processes are quite simple but effective. They have selected and the interaction with them refined over years of performance, to allow for a wide range of sonic possibilities to be teased out of each single loop. Some of the video files also contain synchronised sound that blends with the rest of the mix whenever this is appropriate.

Our performances take place in a range of settings, and we adjust the layout of the screens and projections accordingly. The venues we deal with often have some flexibility when it comes to arranging the projection system, while the sound system is usually a given. Much of our work is shown at media art or electronic music festivals, galleries and cinemas, but we also play the occasional outdoor show, concert hall or club environment. The setting most likely has an effect on how we perform, which is difficult to quantify, but the atmosphere of a place and the disposition of the audience certainly play a role. For example, a seated, attentive audience will be treated to a more considered and elaborate audio mix than a chattering crowd, where the focus would be more on rhythmical elements and dense textures that can cut through the background sound.

Recently we have developed an interest in playing behind a screen of transparent gauze that is placed between us and the audience,



with additional screens behind us at the rear of the stage. This creates a rather interesting spatial depth of the image, and at the same time places us as performers right in the middle of the visual space.

We try to set up all equipment used in the performance on one long table, so we can communicate easily, which is important during performance. Sometimes we have to separate to leave space between us for the projector that is covering the front screen. In this case we have to keep communication to a minimum and, if really needed, simply gesticulate long enough until someone on the other side of the divide notices.

…. putting it back together again
The screen is black. Sound fades in slowly, a static layer that gradually engulfs the space. The audience, slowly becoming aware that something is about to happen, gradually let their conversations drift into silence. Then the images join in and the show begins.

Our computer screens are the interfaces which enable us to interact with all the materials and processes that we have prepared or might spontaneously decide to use, but the most important interface is between the people performing and also between us and the audience in the space and the space itself. The latter two interfaces are less obviously evident than the former, existing as they are on affective and emotive levels, but these connections are what gives the act of performing its special edge over working in the studio: the tension of having to make it happen there and then, the possibility of something going wrong, the expectations, the attentiveness – or otherwise – of the audience.

There is no data link between our machines, the only technological aid we rely on for live interaction between sound and video is an audio connection for sound analysis. This allows for the sound signal to be split into 4 frequency bands, each of which is analysed in order to trigger changes in the visual software.

Most rhythms that appear in the interaction between sound and image are more like flows rather than cuts, a gradual weaving from one part to the next. This leaves room for human imprecision to enter into a dialogue with the ghost inside the machine. The work is in a kind of in-between state, drifting between tightly synchronised moments between sound and image and more open, loose connections. At times we count in changes like a band would do: '3, 2, 1, go…'

This looseness is something that has its own way of relating to our documentary interests on more than just an aesthetic level: There is a messiness, an unpredictability in everyday life, particularly in cities, where innumerable individuals negotiate their lives in close proximity to one another in a limited amount of space.

We avoid getting too caught up in the fascination with techno-utopia, both in its manifestation as a celebration of a brave new world, as in its tendency to look for the imperfections inside the

machines. Instead, the loose synchronicity activates the audience, leaving room for them to find their own interpretations of what they experience. Our work is made with the help of our tools, and much less about the tools themselves. We ensure that these tools leave room for the spontaneity of the persons operating them, rather than try to code spontaneity into the tools.

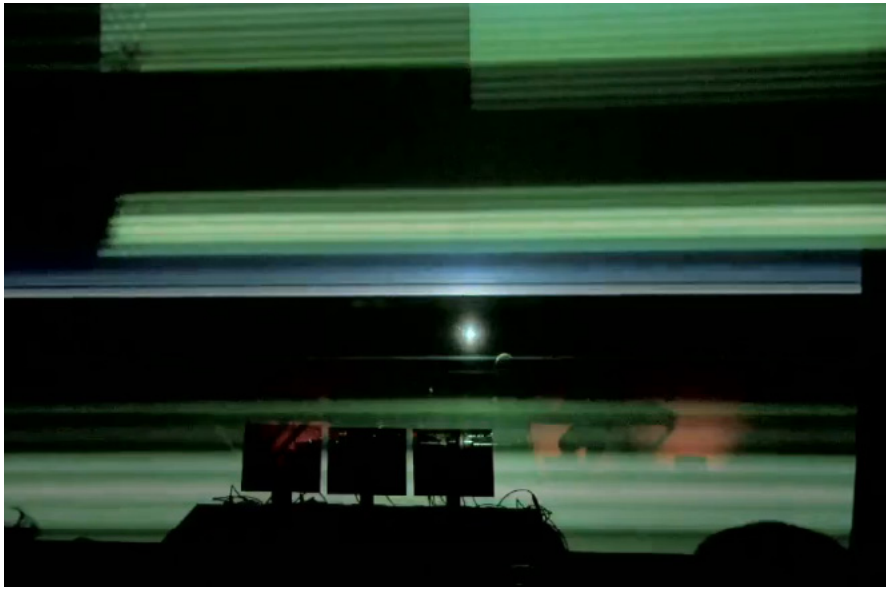
This is where the 'live-ness' of a piece really comes into its own: it allows new forms and combinations of forms to appear in the moment, which also bring to the work suggestions of new meaning, meanings that can only be discovered in this moment, and that might as well dissipate again afterwards.

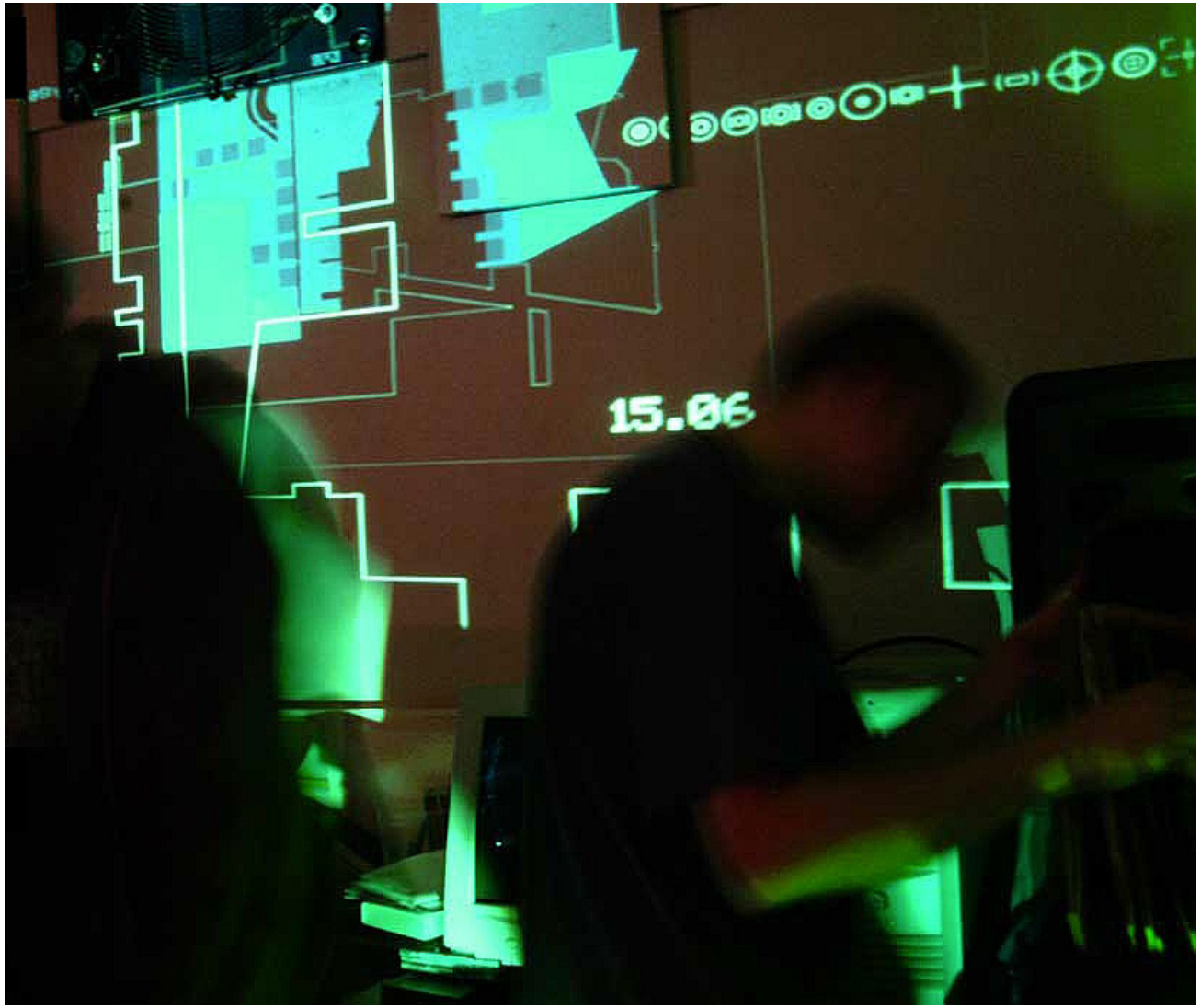
D-Fuse 'Particle' Performance [On_Off / 2009]
Example: Particle #2 (live performance extract)
vimeo.com/17333682

0:00 – 0:56 The music is made up of several textural layers, mostly made from a processed recording of a Vietnamese patriotic song recorded from a TV in Hanoi in 2008. Every16 bars this is accentuated by a stab of layers of bass and hiss, made from electromagnetic recordings. The lines in the image are generated live, through processing real-life footage. Audio analysis causes the lines and thus the amount of light in the space to increase drastically every time a stab sound happens. At other times the lines are reduced, but also follow their own trajectories guided by the content of the footage that is being processed.

0:57 – 1:30 The changes in the music are gradual rather than abrupt, as the main texture becomes more accentuated, the stab sound dissipates and instead a processed field recording of a metro ticket machine fades in. The lines in the images open up to reveal parts of the footage behind the processing. These slow changes, flows rather than cuts, occur during most of the performance. Another example of the opposite, a tightly synchronised moment, can be found from 02:54 – 03:10.

All images are from a live performance of 'Particle' by D-Fuse, except where otherwise stated.





D-Fuse live graphics

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Ceremony

Mike Blow, Sonic Art Research Unit, Oxford Brookes University

Abstract

This paper describes the concept and realisation of *Ceremony*, a sound/sculptural artwork exhibited at the Kinetica Art Fair from 4th–7th February 2011, and discusses issues arising from its development and exhibition. Video documentation of the work can be found at: vimeo.com/17555618

Introduction

Ceremony is an artwork inspired by cymatics, the technique of directly visualising sound through the vibration of physical material, explored and popularised by Hans Jenny in the 1960's (Jenny, 1967). In cymatics, sound vibrates a material (usually either a fluid or granules such as sugar, salt or powder placed on a metal or glass plate), causing patterns to be formed in the material corresponding to the nodes and anti-nodes (points of maximum and minimum vibration) in the sound. The patterns are therefore a virtually instantaneous rendering of the sound in a visible medium, and change depending on its frequency and volume. Jenny experimented with patterns in fluids and smoke, as well as replicating and extending the work of Ernst Chladni who had undertaken the first systematic investigation into these phenomena using a metal plate strewn with powder, activated by stroking with a violin bow, now known as a Chladni plate (Daniels, 2011 pp. 13-18).

Mike Blow's work concerns audiovisual relationships, and evoking a deeper consciousness of site and physical objects using sound. He is especially interested in creating gaps between the seen and heard in which the imagination can play, and in open-ended work which is completed by chance events such as the weather or the actions of visitors. Mike is currently completing a PhD in the Sonic Art Research Unit at Oxford Brookes University.

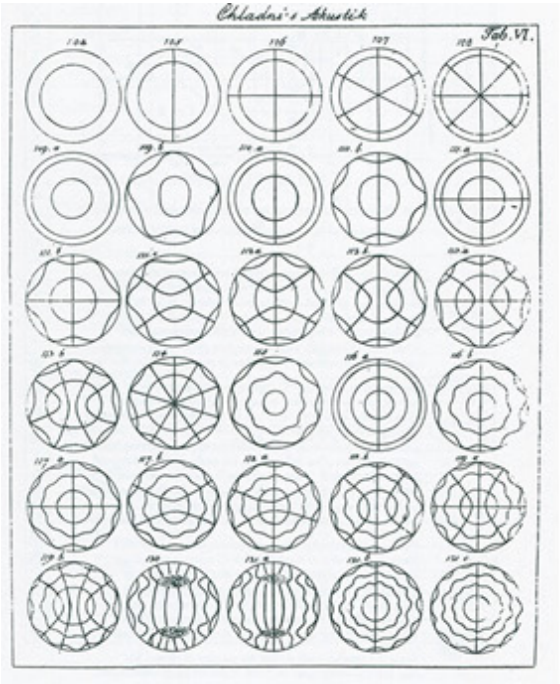
After graduating from Sussex University with an MSc in Evolutionary and Adaptive Systems in 2004, he worked in robotics at the University of Hertfordshire before pursuing arts research at Oxford Brookes. He is a visiting lecturer in Digital Art at the University of Brighton.

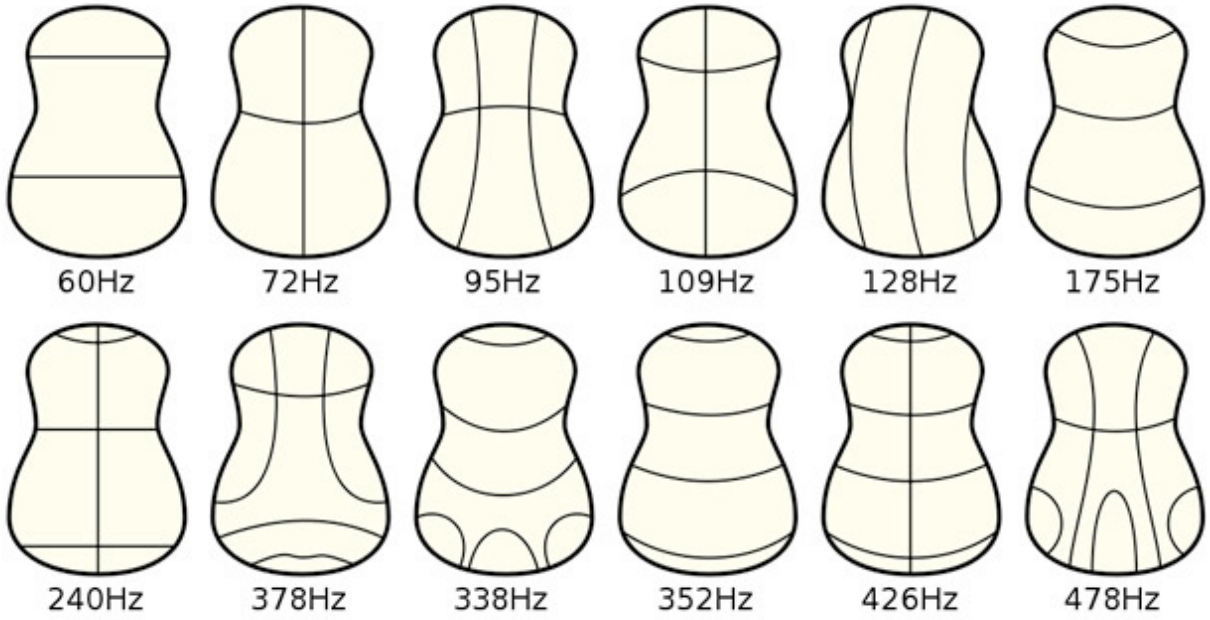
evolutionaryart.co.uk

Another related audio visualisation device is the *Ruben's tube*, constructed using a pipe, sealed at the ends, with a series of holes along the top (Ficken & Stephenson, 1979 pp. 306-310). The pipe is fed with gas, which escapes from the holes and is lit, resulting in a row of flames along the top of the tube. If a sound is played into one end of the tube, the flames change in height depending on the pressure waves generated at various points inside the tube.

In contrast to largely subjective audiovisual mappings such as the inconsistent colour-note schemes of the early colour organs (by 1912 the colour red had been assigned, by different inventors, to every note of the C major scale; see Jewanski, 2011 p. 345, Daniels, 2011 p. 18), cymatics allows an objective rendering of sound as form, albeit one determined in part by the shape and qualities of the materials used to do so (fig. 1). Whether this is a good thing in an arts context is open to debate, as cymatics-based pieces can appear as simply a demonstration of physical fact.

Fig. 1: Examples of cymatics patterns at various frequencies: (L) on a Chladni plate (from Chladni's notebook), and (R) on the soundboard of a guitar.





Nevertheless it has informed several notable artworks, including Alvin Lucier's Queen of the South (Lucier et al., 2005), Suguru Goto's Cymatics (Imperica, 2012) and the photography of Alexander Lauterwasser (Lauterwasser, 2006), and Jenny's related invention to visualise the human voice, the Tonoscope, is currently being re-imagined in digital media by Lewis Sykes (Sykes, 2011).

Description of the Work

In *Ceremony* eight loudspeakers are filled with water, but unlike most cymatics artworks, the emphasis here is not primarily on the patterns formed in the liquid, nor even the visualisation of sound. Because there are multiple speakers vibrating at different frequencies, and the sounds rise and fall in volume–meaning the water only vibrates some of the time – an emphasis is created on the contrast between the rippled and still water, the transitions between the two forms, and the rhythms in which the water moves. The work is intended, not as a demonstration of physics, but rather as a phenomenological exploration of water and sound. *Ceremony* attempts to avoid the sometimes cause-and-effect, science experiment-like use of cymatics in art (Lucier's *Queen of the South* being a notable exception, due to his stipulation that the musicians taking part in the piece respond to the visual patterns created by their own playing, thus creating an audio > visual > human > audio feedback loop) and references work which uses water for its symbolic and humanistic resonances such as text and installation pieces by Yoko Ono (Iles, 1997 pp. 44-51; Rothbart, 2006) or Rolf Julius (Schulz 2002, p. 116).

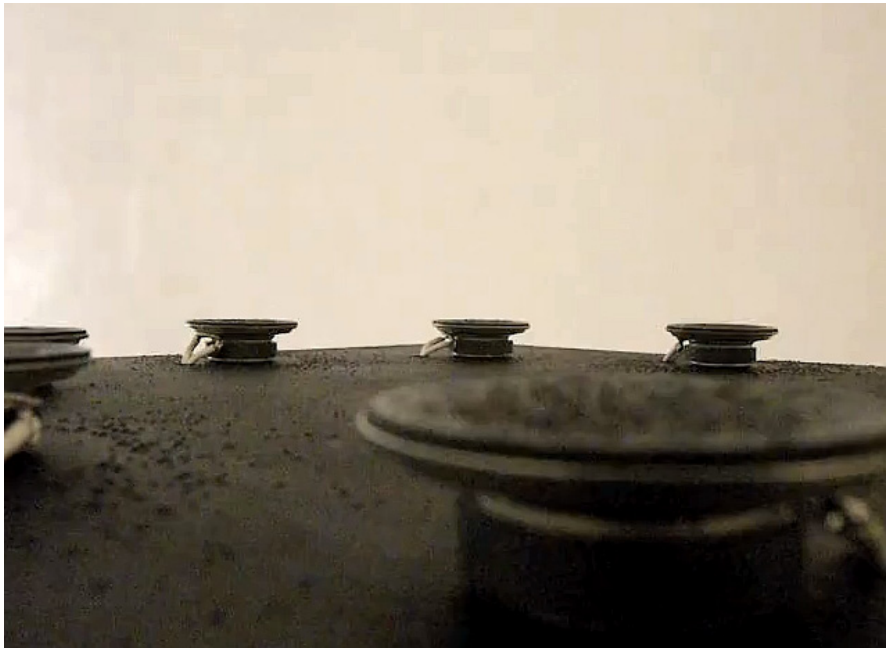


Fig. 2a: Ceremony

The piece was inspired in part by the painting *Lake Keitele* by Akseli Gallen-Kallela (Gallen-Kallela, 1905), which depicts a mirror-calm lake surface broken by bands of ripples. The still water is reflective, shiny and inviting; the bands of ripples are opaque, matt and slightly mysterious. *Ceremony* aims to explore these two aspects of the nature of water captured in the painting, using sound as a driving force. Another aim is a tightly-coupled audiovisual experience, which is created by the pulsing sound being obviously linked to the changing patterns in the water.

Ceremony consists of eight small waterproof loudspeakers arranged equidistantly in a circle on a 40x40cm square wooden base (fig. 2a + 2b). The baseboard is supported on four circular feet, which allows clearance under the board for wires to pass from each speaker, through the board, to an audio amplifier. The amplifier connects to the audio output of a computer running a Max/MSP patch. The speakers are filled with water. When a speaker vibrates, the water forms into surface patterns, which directly reflect the frequency and amplitude of the sound emanating from it (fig 3). One side of the stereo amplifier is connected to four of the speakers in a cross shape (for example N, S, W, E) and the other side to the remaining four speakers in an 'X' shape (NE, NW, SE, SW). The Max program fades sound in and out of the 2 sets of speakers at different frequencies, which creates periods of patterning on the water's surface, and times when it is totally still. Because the speakers are shallow, the small amount of water in them very quickly transforms from one state to the other.

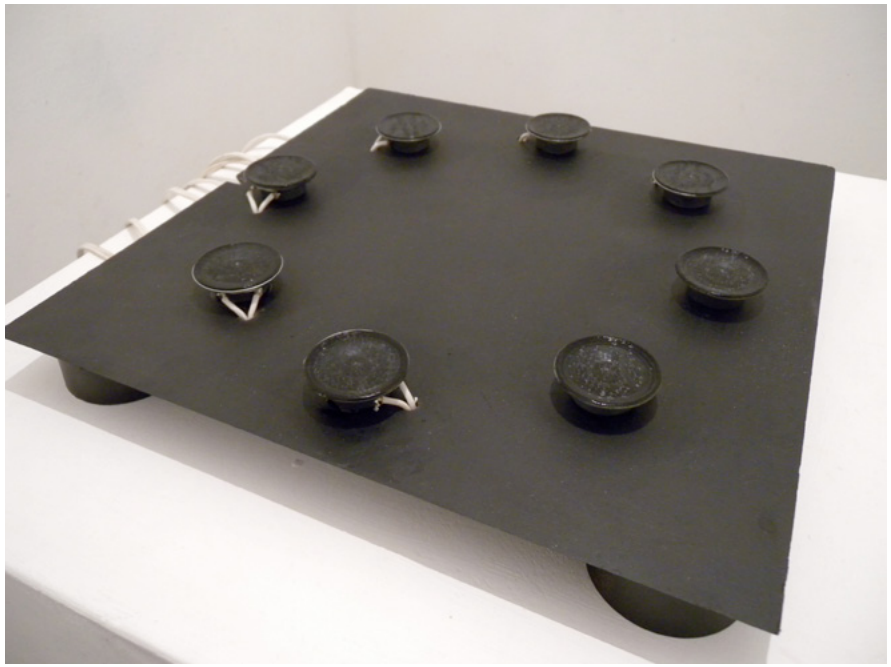


Fig. 2b: Ceremony

Fig. 3: Water vibrating in one of the speaker cones of the larger prototype

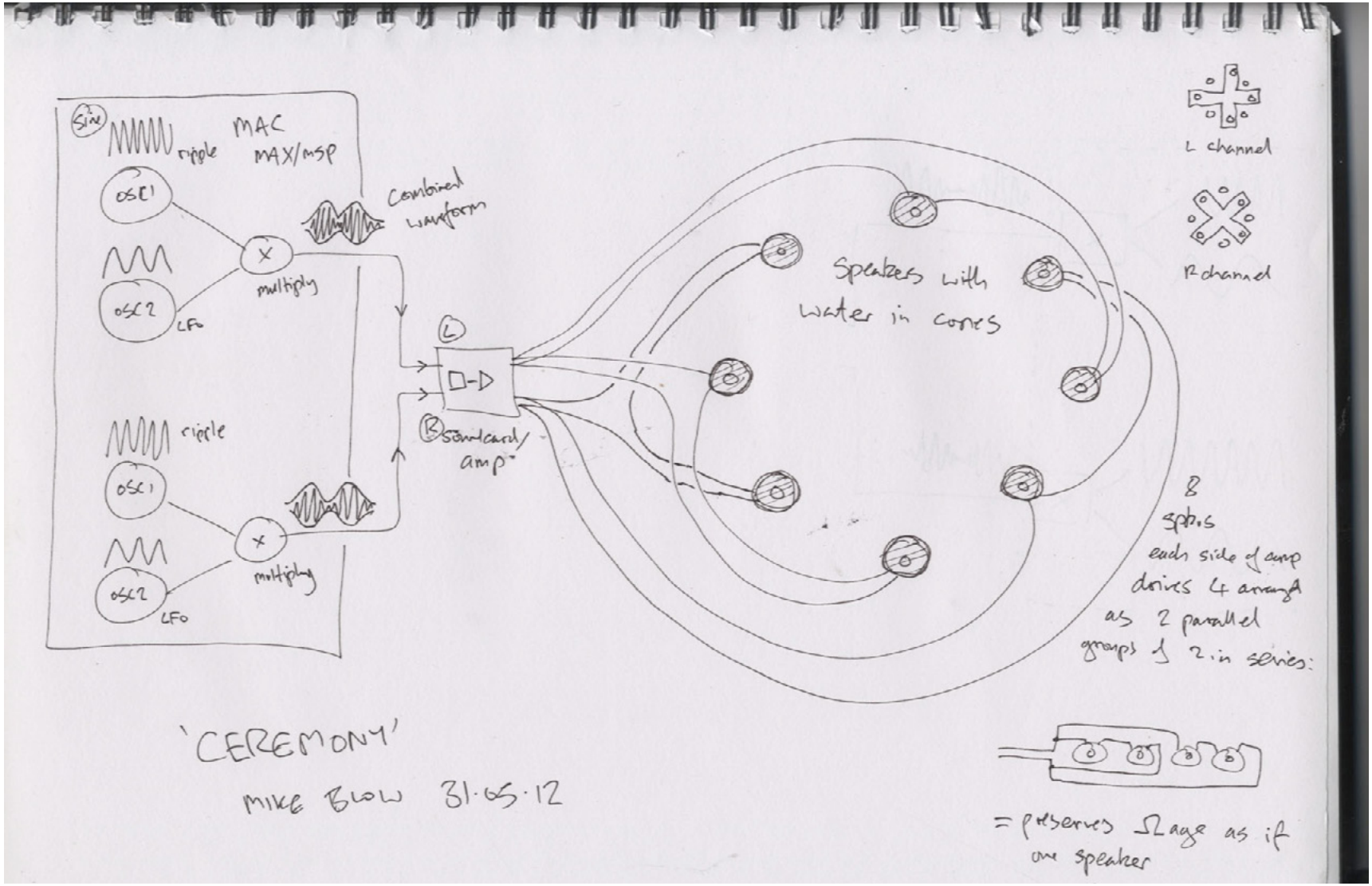


Fig 4: Ceremony system sketch.

Max/MSP and System Overview

The Max patch consists of two pairs of sine wave oscillators. Each pair consists of a primary oscillator and a modulation oscillator. The desired water patterns are those which appear to form a 'skin' on the surface of the water and transform it from a transparent to an opaque material, and to do this the primary oscillators cause the water to ripple by producing frequencies of around 100Hz, the exact frequency for the best patterns being determined upon setting up the work by trial and error. As a subtle shift in appearance is the goal, the maximum amplitudes of the signals are also controlled from the patch or the amplifier to ensure the water does not jump out of the speaker. The modulation oscillators run as LFOs (low frequency oscillators), one reaching maximum volume every 2 seconds and the other every 3 seconds, setting up an auditory and visual polyrhythm between the two sets of speakers. Each modulation oscillator is multiplied with one of the primary oscillators to cause the primary signals to fade up and down in volume. The output from one pair is sent to the left side of the amp and the other to the right side, and from there to one of the sets of four speakers as described above (fig 4).

Discussion

Ceremony originated as an idea fairly close to its finished form; a ring of speakers containing water, pulsing at differing rates. The original intention was to use larger speakers, but inspired by the purchase of small, waterproof speakers for another project I decided to create a miniature version, which ended up, of course, having its own character and presence precisely due to its size. I started developing the piece using two speakers, and on seeing the ripples caused by sound there was an undeniable magic to the experience of watching the water change state before my eyes – judging by the finished work's feedback, a reaction shared by many people who viewed it. My reaction prompted me to expand the two-speaker sketch into the version discussed here with the ring of eight speakers. I was initially interested in the visualisation of sound, the shape formed by the speakers and in attempting to produce an unusual cymatics work. After the work was built, the black colour, circular form and repeating patterns called to mind some kind of occult ritual. This prompted the esoteric name, together with a desire to avoid stressing the scientific character of the piece by obvious references to cymatics, frequencies, or other physical phenomena.

Once made and exhibited, it became apparent that *Ceremony* occupies a useful position in the overall context of my PhD work. My research explores multimodal sound-object relationships, and other pieces I have shown often introduce some degree of separation (usually semantic, but sometimes physical or temporal) between the sound and the three-dimensional object, and explore the possibilities for new interpretations or new imaginary objects created by this dislocation, in the gap between the senses. In contrast, *Ceremony* establishes a state where sound and object (or at least visible effect) are inseparable. The simultaneity of sound and vision in *Ceremony* establishes a baseline position of *no gap*,

providing a reference point for the assessment of other work and a strong example of audiovisual association.

There are other references for the idea of a simultaneous, combined sensory percept. In the plastic arts, the sculptor Haroon Mirza works with found objects, often combining them in ways which cause them to interact and produce sound, in an attempt to create "one singular aesthetic form" (Mirza, 2012). It is the basis of Michel Chion's concept of synchresis (Chion, 1994, pp. 63), where film images and sounds are perceived as belonging together due to their temporal proximity and combine to form a new and distinct sensory event, even to the extent of making us see things that are not actually in the film. This concept is given scientific weight by experimental findings that a single flashing light will be perceived as two or more distinct flashes if a number of beeps are heard simultaneously (Shams et al, 2001 pp. 147–152), and is the visual equivalent of the auditory McGurk effect, where what is heard changes depending on the image that is simultaneously viewed (McGurk and MacDonald, 1976 pp. 746–748).

Sound

The two sounds that are used in the piece – sine waves between 90 and 130 hz fading up and down in volume – combine to produce a low, throbbing hum, which rises and falls in intensity as the two frequencies interact. The low frequency is required to move the water, but the pulsating drone reinforces the air of mystery around the work, adding to that created by its black colour and the unusual/unknown materials and techniques used. If the sound is too loud the speakers vibrate enough to throw the water out, so the piece is necessarily quiet, but it has been amplified on occasion using a piezo contact mic under the baseboard. At certain frequencies the larger version of the piece using 6-inch speakers could be made much louder (see discussion under *Size* below).

Polyrhythms and Visual Distance

One set of speakers pulses every two seconds and the other every three seconds. This sets up a 2 against 3 visual and auditory polyrhythm. To see the patterns it helps to stand back form the work and view the object without focusing on any speaker individually, at which point the relationship between the two frequencies becomes easier to see. The work then exists on two planes of experience; one, the close-up view which allows examination of the water patterns themselves, and secondly a more distant and holistic view which allows the phasing of the patterns and the different 'states' of water (rippled and still) to more easily be appreciated.

Sound-Object Bonding

One of the main areas of my research involves the 'bondedness' of sounds and objects. We are very accustomed to bonding a sound with an object; we tend to say "that sound is a violin", even though the sound is, of course, actually a sound–*c'est ne pas un violin* (Magritte 1929). Dennis Smalley calls this tendency 'source bonding' (Smalley, 2007 pp. 35-58), and Pierre Schaeffer addressed

it by asking listeners to appreciate sounds for their own qualities, without referencing their origin – a mode of audition he termed 'reduced listening' (Chion, 1994 pp. 29-33). Schaeffer's aim was that sounds become objects that can be explored, appreciated and valued as distinct quanta, freed from the visual and cultural associations of the object that produced them. Much of the history and ontology of sonic art has been concerned with establishing sound as a medium freed from its source, and consequently freed (at least semantically) from physical objects. In doing so it becomes apparent how few words we have that uniquely describe sound. It is often described in terms of shape or haptic physical attributes – hollow, fat, thin, rough, round, sharp, and so on, presumably because these are the types of sound that are typically produced by objects with those characteristics, and lending credence to the idea that all senses are extensions of touch (Pallasmaa, 2005 pp. 10-11). Michel Chion notes:

> Participants [in a reduced listening session] quickly realise that in speaking about sounds they shuttle constantly between a sound's actual content, its source, and its meaning. They find that it is no mean task to speak about sounds in themselves, if the listener is forced to describe them independently of any cause, meaning, or effect. (Chion, 1994 p. 29)

A related theme in my research has been to reverse the trend away from solid matter, and to re-attach sounds with objects – but not always those that are directly implicated in their creation. It is then possible to forge a new sound-object bonding by exploring the co-perception of sounds with non-referential objects. Because the sound itself is no longer attached to or subsumed by the knowledge of its source, and yet is perceived in combination with a visible object, a situation is created out of which arises an emergent meaning or experience. Andrey Tarkovsky writes, with regard to using this technique in cinema:

> Used in this way, music does more than intensify the impression of the visual image by providing a parallel illustration of the same idea; it opens up the possibility of a new, transfigured impression of the same material: something different in kind. (Tarkovsky, 1989 pp. 155-163)

In contrast to the concept of removing sounds from their original referent, *Ceremony* can be thought of as the opposite extreme; the object (the water) is not just 'attached' to the sound, it – or at least the pattern formed on its surface – *is* the sound, instantaneously rendered in three dimensions through the displacement of the material. Cymatics is as close as we can get to seeing audio phenomena with the naked eye, and allows us some appreciation of the agitation of the environment required to create and sustain sound. We cannot visually perceive the chaotic air pressure fluctuations of sound all around us; but as the water is transformed by the sound flowing through it, it helps us appreciate sound as a series of interacting waves. Moreover the water becomes something alien; no longer appearing fluid, it becomes opaque due to reflections on its surface, forms into hills and valleys and seems

Fig. 5: Larger version of the piece (work in progress).

more like a solid surface. The ontological shift from this 'solid' form – agitated, opaque, present–to the 'fluid' form–flat, calm, transparent, absent – informing both our understanding of sound and water, is one of the primary aims of the piece.

Size

Ceremony as described here is a relatively small work; 40x40cm, with each speaker 5cm across. It is also quiet, due to the size of the speakers, their inability (through being small) to properly render the low frequencies being put through them, and the fact they have water in the cones. The small size and low volume force close attention, creating an inverse power relationship between the viewer and the work. The work gains power over the viewer, precisely (and perhaps non-intuitively) because it is small.

A prototype larger version of the work has been tried using 6-inch cones and a central light laid out on a studio floor (fig 5). The initial perceived differences

in this work were that the sound was much louder and required lower frequencies and longer on/off times to suit the larger speakers, leading to a heartbeat / breathing effect; and visually, the work seemed more fragmented and was harder to comprehend as a whole but was still engaging. The speakers were covered in shiny clingfilm, a pragmatic 'quick prototyping' choice, and it was apparent that some form of matt waterproofing would allow the water patterns to stand out more distinctly. Subjectively the overall effect was peaceful, repetitive and contemplative, and is encouraging in terms of expanding the work's size and scope, especially as the vital audio aspect of the piece was more perceptible.

Reaction and Feedback

The overall impression seemed to be of an unfolding, emerging experience, drawing people to examine and question the materials and construction or simply to appreciate the patterns in the water. To many people the materials and cymatics technique used in the work are not immediately obvious or known *a priori.* A selection of comments from a verbal feedback session held after a viewing of the small work are listed below:

'I was drawn to it'
'How would people react to a bigger one / would love to see it bigger'
'The speakers are receptacles'
'In watching it, you become part of the ceremony'
'Mesmerising'
'More than a demonstration of physical fact'
'Beautiful mirror and fragmentation quality'
'Should it be touched?'
'Its magical as you start to see it, how much light in the room is required?'

All quotes from visitors to work in progress exhibition feedback session, Oxford Brookes University, 29/11/2010.

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Her Noise

Identifying Feminist Strategies

By Holly Ingleton

Holly Ingleton is a researcher and maker of sound-based arts and music whose practice spans issues of queer feminism, publicness, collaborative practice and ideas of community through both technologically mediated and material networks. She has engaged artist networks in Australia through the Artist Run Initiative project *Plateau_589*, in Greece and the UK with *RadioPlateaux*, and more recently through the *Sound:Gender:Feminism:Activism* research event at LCC in May 2012. Holly has been researching the Her Noise Archive since 2010 as part of her ongoing PhD of *Generative Listening/ (Un)Social Composition: A Feminist Analysis of the Soundscape* at City University London.

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Abstract

Her Noise: Identifying Feminist Strategies explores the process by which feminist politics informed the development of *Her Noise*, a project that commissioned installations and performances by individual artists and collaboratively developed an archive of experimental and sound-based arts and musics with a focus on gender. The paper traces the politics that informed and influenced the project, considered as an artwork in itself, by analysing the ambiguous foundations encapsulated in the title *Her Noise* through Joan W. Scott's understanding of the paradoxical nature of sexual difference as discursively produced and productive of change.

Her Noise Archive installed at the South London Gallery, 2005. Image by Marcus Leith, courtesy of Electra

Introduction

Her Noise was commissioned in 2005 by co-curators Lina Dzuverovic and Anne Hilde Neset, both women also co-founding London arts organisation *Electra,* whose establishment in 2003 was instrumental to the development of the *Her Noise* project. The project intended to

> investigate music and sound histories in relation to gender and to bring together a wide network of women artists who use sound as a medium. (Electra, s.d.)

Dzuverovic, initially as Curator of New Media Art at London's *ICA* and Neset as assistant editor of specialist music magazine *The Wire,* had been working collaboratively since the late 1990's, curating new media art and experimental music programmes in London and it was during these curatorial experiences that they realised that they had their unintentionally curated a two-year season showcasing only two women artists[1], although their inspirations included many women, such as Kim Gordon, Lydia Lunch and Diamanda Galas. The crystallisation of an unequal musical landscape became more apparent when Neset interviewed Kim Gordon for *The Wire* in 2000[2]. It was at this meeting that a shared concern regarding the lack of female visibility in music surfaced.

1 The season, held at the LUX, was called *Interference* and featured Vicky Bennett of People Like Us & Kaffe Matthews

2 The Wire #197, Anti-Pop Consortium, July 2000

The resulting *Her Noise* project, the development of which initially began in 2001 and was originally a collaboration between Dzuverovic and Nest working with Kim Gordon, Thurston Moore and American independent filmmaker Andrew Kesin, took four years to fully develop, finally occurring in 2005. The culmination of the project included a five-week exhibition at the *South London Gallery* which housed five main installations: Christina Kubisch's *Security*; Jutta Koether and Kim Gordon's *Reverse Karaoke*; Hayley Newman's *Miniflux*; Kaffe Matthews' *Sonic Bed*; and *We're Alive, Let's Meet* by Emma Hedditch. *Her Noise* also extended to additional events with a performance of Marina Rosenfeld's *Emotional Orchestra* opening the *Her Noise* season in the Turbine Hall of London's *Tate Modern*, and Christina Kubisch's land-sound-art installation *Electrical Walks,* a combined commission between *Electra* and the *Goethe-Institut* London. Consecutively Kim Gordon and Jutta Koether presented their collaborative work at the *Her Noise Symposium* held at *Tate Modern*, and sound artist Melanie Clifford presented a weekly radio program for the duration of the exhibition on London's art radio station, *Resonance FM*. There were also weekly scheduled performances throughout the exhibition, by people such as Ana Da Silva of the *Raincoats* and performance artist Anne Bean among others.

From its inception, *Her Noise,* was developed as a multifaceted program intended to extend over time and to traverse normative classifications of experimental and sound-based music and art. A vital, although somewhat distinct element of *Her Noise* as a whole, was the *Her Noise Archive,* the development of which could be considered as providing a basis or back-bone of research for the entire project. The materials that constituted the basis of the *Her Noise Archive* were collected predominantly between the years 2001 and 2005[3]. During this period Dzuverovic and Neset, who had begun working collaboratively in 2003 with London based artist / writer Emma Hedditch, and Irene Revel, a member of the collective that organised the first *Ladyfest* in London in 2002, conducted and filmed over twenty interviews with women and men working in experimental and sound-based music and arts in both Europe and America.[4] These interviews formed the foundations of the *Her Noise Archive.* The collaborators also collected a wide range of music, zines, books and films exploring narratives and networks of people working in experimental and sound-based musics and arts, and charted post-punk, no-wave, DIY aesthetics and *riot grrrl* music histories with a focus on gender. The *Her Noise Archive,* as collected up to 2005, was exhibited at the *South London Gallery* alongside and between each of the five main installations identified above, in such a way that the *Her Noise Archive* of 2005 may be considered as an additional installation, rhizomatically connecting all the elements of *Her Noise*.

3 A few additional interviews were conducted in 2006, and along with the documentary *Her Noise: The Making Of* were added to the archive after the events of 2005.

4 Andrew Kesin who was working on *The Other Woman* project in the U.S. at the time and was involved in the early stages of interviewing, was responsible for *Daytrip Maryanne*, *Small Steps: Conversations with Pauline Oliveros* and the *Women in Experimental Music Symposium* DVD's included in the Archive.

After the events of 2005, the documentary, *Her Noise: The Making Of* was produced collaboratively between *Electra* and Emma Hedditch, in which additional interviews with the *Her Noise* curators and selected artists were edited along with audiovisual footage collected from the various events of 2005 into a narrative and investigation of the project up to that point. *Her Noise: The Making Of* was then added to the *Her Noise Archive,* which was itself housed in the offices of *Electra* in central London from 2005 to 2010 and was made available for research purposes during this, in this way extending beyond the 2005 time-frame of *Her Noise.*

In mid 2010, the *Her Noise Archive* was acquired by CRiSAP (Centre for Research in Sound Art Practice) at London College of Communication (LCC), University of the Arts London. It was at this time that all the documentation from the entire project ranging from its inception in 2001 to 2010 were catalogued and transported to the *Archives and Special Collections Centre* at LCC. This included unedited footage gathered before, during and after 2005, administrative documentation of the development of the project, press clippings, installation artefacts, recordings, artist biographies and proposals and related audiovisual and written documents that were instrumental to the development of the project *and* also included the original *Her Noise Archive* of 2005. This expanded the original *Her Noise Archive* to include its own makings, in effect creating an archive within an archive, all of which comprises what is now known as *The Her Noise Archive*.[5]

5 The *Her Noise Archive* is now housed at the Archives and Special Collections Centre at London College of Communication, University of the Arts London and may be viewed by appointment.

Identifying Feminist Strategies

I began researching the *Her Noise Archive* in 2010 through an emerging lens of *feminist sound studies*[6] combined with feminist and queer theories[7]. Implicitly, as I began, I understood that the project was developed through the feminist beliefs and attitudes of the curators and that it was a feminist project. One only needs to consider the title, *Her Noise,* to appreciate that there are gender politics involved. But beyond the title, I encountered some difficulty articulating explicitly *how* the project was feminist, with a further difficulty in appreciating what kinds of feminist approaches might have been instrumental to its development. Through researching the archive, I encountered the video footage of *Her Noise* co-curator, Lina Dzuverovic, interviewed by the then *Electra* administrator Irene Revell[8]. In this interview Dzuverovic asserts that for her the feminist politics of *Her Noise* were 'so at the core of the project' that they could and should remain implicit so that other issues in the project could gain equal recognition[9]:

6 This field of research can be possibly dated back to the *International Computer Music Conference* in Banff in 1995, where gender issues in electroacoustic music were raised by Hannah Bosma, Mary Simoni and Andra McCartney as identified by Barry Truax (2003) and is a term that has perhaps most recently been applied in writings by Tara Rodgers (2010).

7 Feminist studies, women's studies, gender studies and queer theory each have slightly different approaches to the issues of sex, sexuality and gender, where these three foundational terms may each take on different meanings and uses. My use of the term gender in this discussion includes the multiple meanings of 'sex' and 'sexuality' as read through Michel Foucault's *History of Sexuality Vol I* (1978*).*

8 Irene Revel has been the director of *Electra* since 2011.

9 Transcribed from the Lina Dzuverovic *Her Noise* Interview 2006, 00:59

Irene Revell: Do you think that the title [Her Noise] is implicitly feminist?

Lina Dzuverovic: What else could it be? I think it is because it's very clear what we are trying to say.

IR: So in that case do you think the project in itself has a strong feminist politic?

LD: I think the feminist politics are so at the core of it, that we almost felt we had to go beyond talking about that. Of course if you ask the question about equality and gender in a certain area of artistic practice, of course you're coming from a gendered perspective. So to me that was implicit and then we had to go beyond that and explore further. So I didn't feel we had to be overtly loud about the feminist agenda, I felt it was just there.

That a 'feminist agenda' is very much at the core of this project is not in doubt, but how that feminist agenda is operative throughout the entire *Her Noise* project needs some thinking about. On one level what the curators are trying to say is very clear, that 'her noise', which in this case is experimental and sound-based music and art made by women, not only exists but has also existed historically, and it has been identified and is on show throughout the program. But that is not all Dzuverovic seems to be suggesting, and exactly what the "need to go beyond and explore further" means is more ambiguous and difficult to grasp. What is it that

Her Noise Archive installed at the South London Gallery, 2005. Image by Holly Rose Wood, courtesy of Electra

Dzuverovic wants to 'go beyond'? Is it a need to go beyond 'her noise', that *Her Noise*, once identified, needs to be overcome, dissolved or refused? Would the establishment of a program by, about and for 'women working with sound as a medium'[10] not then be a contradictory move on behalf of the curators if the effacement of 'her noise' was the goal? Seeing as the latter option of

10 http://www.electra-productions.com/projects/2005/her_noise_archive/overview.shtml

effacement, or 'going beyond', appears to be dependent upon the existence of *Her Noise*, it would seem that the strategies within the feminist politics of the project are more complex than a first reading of the title *Her Noise* as being self-explanatory would imply.

Dzuverovic in the same interview suggests that the themes and ideas that traverse throughout each of the different elements of *Her Noise* can be considered in ways other than solely through feminist theories. For example, questions about how to compose or improvise music, how to get a group of improvisers together or how to create an archive can be considered in many different ways. It is Dzuverovic's intention that, whilst for her in regard to *Her Noise* these themes may have been considered through the question of how gender and music histories manifest in the making of works, the feminist politics within this question should remain implicit so as to enable analyses through a range of frameworks by a range of people. This identifying yet not identifying with the feminist politics of *Her Noise,* in my opinion, does not make the project any less feminist, but as I will explain, may actually be understood paradoxically as constituting *Her Noise* as a feminist project, as *the* feminist strategy of *Her Noise*.

The ambivalence at the heart of *Her Noise,* I suggest, has to do with particular understandings of 'sexual difference' as it pertains to feminist histories and their differing theories and practices. Explained extremely briefly, feminism is not understood as one monolithic theory in which everyone agrees on the meaning of sexual difference.[11] Some feminists accept sexual difference based upon biological differences, in which the differences between men and women can be explained by biological factors, for example the writings of Hélène Cixous have been interpreted in this way. Other feminists reject biological claims of sexual difference, differences which they believe are produced culturally, through language or discourse and are in themselves productive of 'heterosexual normativity', most notably expressed by Judith Butler (Butler, 1999 p. xii). And yet there are still other feminists who believe that sexual difference is a combination of both biology and discourse, for example Elizabeth Grosz and Rosi Braidotti. The feminist historian Joan W. Scott expresses an understanding slightly different even to these three approaches. She suggests that sexual difference is not only discursively produced, but that 'it is a framework for understanding how historical differences are established and destabilised through time' (Butler, 2011 p. 20). It seems to me that the feminist politics of *Her Noise* echo Scott's understanding and application of sexual difference, which goes some way to explain the ambivalent, and as I perceive it, paradoxical position that Dzuverovic expresses. For Scott, paradox is at the centre of contemporary feminist thought, in that feminism itself has been socio-culturally produced through these contesting and converging claims over the meanings and applications of equality and difference, as they relate to ideas about sexual difference. As Scott suggests,

11 I do not mean to imply that feminism is only concerned with ideas of sexual difference, but that sexual difference has a particular relevance for my understanding of *Her Noise*.

> In the age of democratic revolutions, "women" came into being as political outsiders through the discourse of sexual difference. Feminism was a protest against women's political exclusion; its goal was to eliminate "sexual difference" in politics, but it had to make its claims on behalf of "women" (who were discursively produced through "sexual difference"). To the extent that it acted for "women;' feminism produced the "sexual difference" it sought to eliminate. This paradox-the need both to accept *and* to refuse "sexual difference"- was the constitutive condition of feminism as a political movement throughout its long history (Scott, 1996 p. 3).

As I understand it, this 'need to both accept *and* refuse "sexual difference"' is foundational to the curatorial framing of *Her Noise*, as can be appreciated by Dzuverovic's ambivalence toward an explicit feminist politics, whilst at the same time claiming that they are 'so at the core' of the project (Scott, 1996 p. 3). *Her Noise* can be understood as a 'protest against women's political exclusion' both historically and in the present day, a protest about women's exclusion from experimental and sound-based arts and musics (ibid). And further, *Her Noise* accepts ideas of sexual difference when making 'claims on behalf of "women"' but refuses the negative ideas of sexual difference that would group women as a homogenous category and by which they have been dominated (ibid). To me, this is the paradoxical basis of *Her Noise* as much as it is the paradoxical basis of feminism, paradoxes, as Scott suggests, that are 'not strategies of opposition, but the constitutive elements of feminism itself' (Scott, 1996 p. 5).

Conclusion

In this paper, I have attempted to briefly identify a primary strategy of paradox as productive of both feminism and *Her Noise* in which the gendered position expressed by co-curator Lina Dzuverovic may in itself be read as indicative of the gendered position of historical feminism, a position that at once makes claims on behalf of women and sexual difference whilst refusing certain identifications of both. How this approach differs from Hegelian or Marxist dialectics through non-resolution in a way that not only makes space for different voices and peoples but also establishes spaces in which a broader range of people may 'find themselves speaking', is beyond the scope of this paper, but informs my ongoing research of *Her Noise* and its constitutive elements through queer-feminist readings and listenings (Butler, 2011 p. 24). Not only making spaces for women's and feminist voices in music and society but also enabling spaces in which what women have to say is deemed intelligent, is still a topical subject, as the recent trail of feminist art-punk group *Pussy Riot* in Moscow recently demonstrated. The trial of the three young women, convicted of hooliganism motivated by religious hatred, echoed the condemnation of Joan of Arc in the fifteenth century, burned at the stake on charges of heresy. The voices of the women in both instances, separated by centuries, were deemed unintelligible and proven false, and in our current day, the prosecution and punishment of three women for speaking their minds is still justifiable by dominant powers, who base their means of social organisation and control on discourses that have been in circulation for centuries. It seems to me, then, that *Her Noise* is

as important today as it ever has been, in that it may be 'not the cause, but rather the means for articulation, and the mechanism for historical reproduction and change' (Butler, 2011 p. 20).

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Digital Footage

Her Noise Interview: Lina Dzuverovic, 2006. Courtesy of Electra and CRiSAP

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The Ambiguous Materiality of Sound

By Rahma Khazam

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springerin.at

Materiality may not be a term that's commonly associated with sound, but in the sonic arts, it is coming increasingly to the fore. Take for instance, the newly-published anthology *Site of Sound #2*, edited by Brandon LaBelle and Cláudia Martinho. It features a number of artists' projects in which sound challenges perceptual givens – by taking on 'visual' qualities such as density, mass and physicality.

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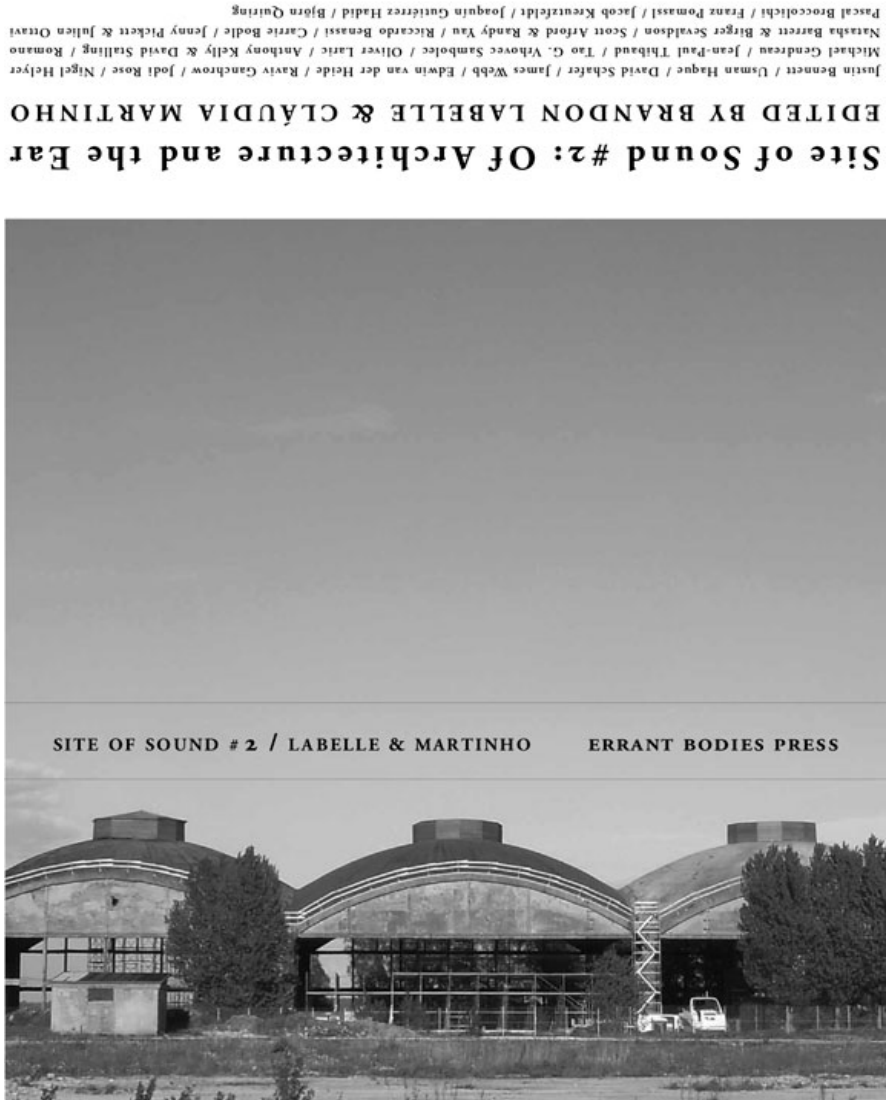

These projects engender alternative modes of perception, questioning the listener's relation to space. When Scott Arford and Randy Yau discuss their Infrasound project – which immerses the audience in low frequency vibration – they highlight its "tangible vibrancy" and the idea of "solidifying the void" (2011, pp. 195-197) around the listener through sound. In Edwin van der Heide's installation *The Speed of Sound*, 2007, the sound takes on an almost tangible circular form as it travels through a ring-shaped corridor back round to its point of origin. By means of this set-up, the piece materializes the speed of sound, while altering the dynamics of the space.

Site of Sound #2 features projects from the last ten years, however attempts to materialize sound vibrations, whether by endowing them with object-like qualities or transposing them into visual phenomena, already had considerable significance in the eighteenth and nineteenth centuries. As Raviv Ganchrow points out : '"Seeing vibration" played an important role in the historic epistemology of sound. From the enigmatic Chladni figures [formed by drawing a violin bow across the rim of a metal plate strewn with sand].... to the bore-bristle waveform registrations of the "phonoautograph"–the visibility of acoustics continually underlined the *dimensional* characteristics of sound' (2009, p. 72). From the end of the 1940s, the musique concrète composers were sculpting sound, endowing it with three-dimensional qualities such as texture and density, while the work of the artist Bernhard Leitner has been predicated, since the late 1960s, on containing,

ordering and channelling the physicality of sound. Other examples include a recent project by Paul Devens that simulates the acoustic characteristics of a room whose ceiling is descending.

In these and other cases, sound engenders a more material sense of space than visual elements. Boris Groys likewise notes that in a visual installation the space around the objects appears '"immaterial", indeed, non-existent... As a consequence, the [visual] installation is misunderstood as a specific arrangement of objects within space.' Yet this is not the case of a sound installation, for 'the wonder of sound consists in the fact that it fills space. For this reason, sound can best serve as an indicator of holistic space' (2008, pp. 7-9).

Metamorphosing between the immaterial and the object-like, the visible and the invisible, the tangible and the impalpable, sound possesses what David Toop describes as an 'ambiguous materiality' (2007).

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