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# Darmstädter Beiträge zur Neuen Musik

Herausgegeben von  
Michael Rebhahn und Thomas Schäfer

**Band 22**

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# Vorwort

«Was Form in der Musik ist, steht nicht fest, und ein Versuch, Regeln zu formulieren, würde nichts als Hohn provozieren» – Die Zustandsbeschreibung, die Carl Dahlhaus im 1966 erschienenen zehnten Band der *Darmstädter Beiträge zur Neuen Musik* gibt, hat an Aktualität nichts verloren. Beinahe fünfzig Jahre danach führt das Thema «Form», zumal in Bezug auf Relevanz und Nutzen normativer Zugriffe, erneut auf unerschlossenes Terrain. So widmet sich auch ein Teil des vorliegenden Bandes der *Darmstädter Beiträge* aus verschiedenen Perspektiven dieser Fragestellung. Ulrich Mosch dokumentiert – ausgehend von den Ergebnissen des ästhetischen Kolloquiums bei den Darmstädter Ferienkursen 2012, das demselben Thema gewidmet war – gegenwärtiges musikalisches Formdenken anhand der Analyse eines Werks des dänischen Komponisten Hans Abrahamsen. Germán Toro Pérez hinterfragt die Rolle der zeitgenössischen Musik im wissenschaftstheoretischen Diskurs und erörtert die Potenziale künstlerischer Forschung nicht zuletzt mit Blick auf alternative Definitionen musikalischer Formgestaltung.

Einblicke in die eigene Arbeit geben Joanna Bailie, Michael Maierhof, Claus-Steffen Mahnkopf und Hannes Seidl. Bailie diskutiert die Verwendung von Fieldrecordings im kompositorischen Kontext, Maierhof wiederum exploriert die Gestaltung einer Musik, die der Tonhöhe als ordnende Kategorie eine Absage erteilt, während Mahnkopf am Beispiel verschiedener Werke seine Zugänge zu den

Phänomenen «Stimme», «Gesang» und «Text» beschreibt. Die Anwendung eines systemtheoretischen Begriffs auf musikalisch-visuelle Konzeptionen reklamiert schließlich Hannes Seidl: Er spricht sich für die Kontingenz als künstlerisches Gestaltungsprinzip aus.

Aus musikästhetischer bzw. musiksoziologischer Perspektive nähern sich Adam Harper, Stefan Prins, Michael Rebhahn und Hans Thomalla. Prins zeichnet die Auswirkungen alltäglicher Technologien auf die kompositorische Praxis nach, und Rebhahn fragt nach dem Missverhältnis zwischen konservatorischem Musikbetrieb und künstlerischer Innovation. Harper skizziert in seinem Text einen Zukunftsentwurf musikalischer Produktion und Rezeption: Musik als andauernder Prozess der Erneuerung. Gegenwärtige musiktheatralische Konzeptionen erörtert Hans Thomalla, wobei sein Augenmerk vor allem der Antinomie zwischen musikalischer Eigenständigkeit und Funktionalisierung gilt.

Komplettiert wird Band 22 der *Darmstädter Beiträge zur Neuen Musik* durch zwei Texte, die einen Programmschwerpunkt der Ferienkurse des Jahres 2012 widerspiegeln: Des 100. Geburtstags von John Cage wurde in zahlreichen Veranstaltungen gedacht. Im Gespräch aus der Reihe «Konstellationen» erinnert sich der Anglist Klaus Reichert an seine persönlichen Begegnungen mit dem Komponisten. Dem herausragenden Cage-Interpreten David Tudor widmet sich schließlich Nikolaus Heyduck, indem er den wenig erforschten Weg des Pianisten zum Komponisten und Performer elektronischer Musik nachzeichnet.

Die Herausgeber danken allen Autorinnen und Autoren für die Überlassung ihrer Texte zu diesem Band, der rechtzeitig vor den 47. Internationalen Ferienkursen für Neue Musik

Darmstadt erscheinen kann. Unser Dank gilt weiter Schott Music für die zuverlässige und angenehme Zusammenarbeit. Wie notwendig der Diskurs über aktuelle Fragestellungen heutiger Musikproduktion und -rezeption ist, steht außer Frage. Die bisher erschienenen Bände der *Darmstädter Beiträge zur Neuen Musik* haben hierzu ihren Teil beigesteuert – und wir hoffen, dass auch diese Ausgabe zur produktiven Verständigung anregen kann.

Michael Rebhahn und Thomas Schäfer  
Darmstadt, im März 2014



# Squeezing out the music from real sound

Joanna Bailie

## Introduction

While the use of field recordings in electro-acoustic music and sound art has become fairly commonplace in recent years, within the world of notated instrumental music (with or without electronics) it is still confined to a fairly small (though growing) group of artists. One might think primarily of the work of the Austrian composer Peter Ablinger and his project of creating a sort of photorealism by transcribing recordings of the environment and of the speaking voice for instruments. Certainly his installation for midi-controlled player-piano *QUADRATUREN IIIh Deus Cantando (God, Singing)* from 2009 comes as close as anything one could think of to reproducing the sound of the real world through traditional musical means. Of course *Deus Cantando* does not sound exactly like a child speaking and it is in this 'not exactly' that the interest lies - it is the strange gap where our relationship to the function of the sound is in a kind of flux and the idea that we might find music in the not-intentionally musical could emerge.

Over the course of this article, I'm going to look at what originally attracted me to this particular area of music, and voice some questions I have concerning the aesthetics of using 'real sound' in a compositional context. I'll then focus in on a particular technique I've been using over the past years, namely the audio-freezing of field recordings,

mentioning some of my works that use this technique and how they might relate to time manipulation of real material in other media.

1.

My own interest in using field recordings began when I purchased a recording device with the aim of expanding the range of materials I had at my disposal for making electronic music.

A conversion to a kind of Cageian/Duchampian belief in the power of 'framing' gradually followed. I would define framing as the quasi-alchemical act of transforming real-life non-art into art through placing it in an artistic context or simply by seeing or hearing it in a different way. Framing often occurs when you are making recordings. I remember once sitting at a bus stop recording the cars go by and at one point there was a shift in my perception, perhaps due to my level of concentration or the effect of amplification. I genuinely had the impression that the cars were driving past at particular times, speeds and volumes for precisely my own pleasure, that it sounded good and that it was indeed music.

At this point it's important to mention the legacy of *4'33"*. Although we are all perhaps a little overfamiliar with the work (especially in light of the recent anniversary), I think it's worth reiterating how this piece (and Cage's aesthetic in general) opened up our listening experience to non-musical and unintentional sounds thus giving us cause to re-evaluate what might in fact constitute 'music' and even to consider the proposition that all sounds could potentially be music. As wonderful and as liberating as this may seem, in other ways Cage's gift to music could also be thought of as a poisoned chalice. It's a difficult tradition to really build upon or to try to position oneself within because the field has been blown open and stretches in a seemingly

infinite manner in all directions. I find Douglas Kahn's description of the musical world opened up by John Cage as an "emancipatory endgame"<sup>1</sup> particularly apt.

2.

If we are not to simply present the sounds of the world to an audience as a kind of musical *fait accompli* in the manner of Luc Ferrari's *Presque rien No.1*, what in fact are we to do with them? A possible approach may be to actively look for music when making field recordings or to tease the music out of the recording by some kind of manipulation. What might constitute a 'musical' field recording is of course a matter for speculation. For me it's a question of an appealing dramaturgy that might itself suggest a compositional strategy, a certain (fortuitous) balance of elements and more often than not, pitch content, whether it comes in the shape of music in public-spaces, car horns or airplane drones. In effect, it might be a question of re-narrowing the field after the great Cage shake-up and finding that all too elusive aesthetic space in which it seems both creatively motivating and relevant to operate. The American composer Michael Pisaro has written eloquently on exactly this issue in his article "Eleven Theses on the State of New Music".<sup>2</sup>

In terms of my own music, after having made some recordings and chosen one (or more) for use in a piece, another kind of work begins. Highlighting an aspect of a recording is almost a necessity, a kind of slimming down of things to suit the small chamber context in which I usually operate. The aspect I choose to bring into the foreground is often the one with the most interesting, or at least the most apparent pitch content. This pitchy place becomes the meeting point for the field recording and the instruments, a kind of surface where I can attach them together. The idea is for the instruments to bring out a kind of music that runs

in parallel to the original recording and that in tandem they might occupy the strange space that exists between the intentionally musical and the not-intentionally musical.

An example of 'parallel music' can be found in the last movement of *Harmonizing* (2011), a piece that I wrote for the vocal group Exaudi. In this section I use three different recordings of planes passing by overhead. There are other sounds (cars, a siren, an unidentified low hum) but it is this very characteristic plane sound that I focus on: a held note followed by the slow drop in pitch caused by the Doppler effect. In the end this descending line becomes a sort of abstract focus for the piece, it's a highly musical shape but one that is also commonly encountered in the sound of real life. The performers sing harmonizations of this line in which other notes are added to a few of the main partials on the recording in order to take the chords in a different direction from that of the pure plane spectrum. I also break up the line into steps, forming microtonal scales, alternating patterns and a formal progression that moves in contrary motion to the descending line of the plane.

3.

What the mind does is to take the ceaseless, living flow of which the universe is composed and to make cuts across it, inserting artificial stops or gaps in what is really a continuous and indivisible process. The effect of these stops or gaps is to produce the impression of a world of apparently solid objects.<sup>3</sup>

Freezing is a fairly gentle type of manipulation of recorded sound consisting of the prolongation of the frequencies present at a particular moment of time in this sound. This 'moment' has (and of course must have) a duration in order to contain frequencies. However, the duration in question is a relatively short one lasting a fraction of a second. From the quote above we can see how

a comparison to a Bergsonian view of the world might be quite useful when thinking about freezing – that somehow by manipulating sound in this way we are mimicking the coping mechanism of the intellect which pulls things out of the continuous flow of reality and creates objects from them. Because of a lack of literature on freezing techniques in sound, it seems quite natural to refer to film and photography theory. As helpful as such intermedial comparisons can be though, there is always a point where such correspondences fail to link up. This ‘gap’ should not be ignored, however, and may well be the place where the most interesting, complex and paradoxical possibilities lie.

My first thoughts when dealing with a comparison between audio freezing and visual freezing concerns the issue of recognizability and the extent to which we can identify the source of an out-of-context sound-freeze. Of course we usually think of subject and context as being very clear in a photo or movie freeze-frame, but this doesn't by definition have to be the case. I think here we have to presume a certain clarity (rather than obscurity) of subject and method of capturing that subject when making the audio or visual recording in order to make a viable comparison. Even then, do we respond in the same way to a horizontalization of frequencies as to an actual image? Perhaps the only thing to do is to test this out. As an experiment I made a series of seven decontextualized freezes that you can listen to online (the link is given at the end of this article). My question is whether we can discern the original subject of the sound recording from an isolated freeze. The answer is probably yes and no, depending very much on the nature of the sound. How static the sound is and whether it has an envelope of some kind (the sea), or a melodic shape (birds, car with Doppler effect) plays an important part in the identification of the source. Some sounds, such as the bells with their signature inharmonicity, or car horns that are more often than not tuned to the same

pitches, have very easily recognizable spectra. The first example of a reverberant hall full of chattering people is very difficult to identify, no doubt due to the rich, fluctuating, complexity of the sound material.

4.

The computer program I use to create the freezes is a Max/MSP patch based on jitter elements designed by Jean-François Charles.<sup>4</sup> What it does, as far as I understand, is to take several analysis-frames at the point where the sound needs to be frozen and then smooth them into a more or less continuous sound through a process of stochastic blurring. An understanding of the workings of the process serves as a reminder of exactly how 'fake' this process actually is. Sound of course is never (to my knowledge) frozen in real life, freezing is a temporal manipulation of recorded material made possible by technology, that produces a kind of sound science fiction. Just as in a film freeze-frame where a single still image has to be repeated 24 times per second in order to create an illusion of immobility, in sonic-freezing we must overlap and loop tiny segments of audio material in order to create a similar effect.

In any case, it is important to bear in mind that a field recording is in no way a portrayal 'reality' per se, but a heavily mediated version of it. The journey between the occurrence of the sound in real life and its playback in a concert hall is a complex one full of both technological and artistic intervention.<sup>5</sup> Perhaps then, the process of freezing can bring this mediation into relief, creating more distance between the sound object and the listener, or at least fashioning a more complex relationship between the two that lies beyond the idea of a simple immersion into a pseudo-reality.

5.

If we are willing to overlook the inherent 'fakeness' of the freezing technique, it appears to be quite rich in potential readings. Indeed, there is a contradiction between the sonic simplicity of the held freeze and the complexity of what it might mean. To begin with, we might turn to Walter Benjamin's writing on photography and his notion of an 'optical unconscious': We have some idea what is involved in the act of walking... we have no idea at all what happens during the fraction of a second when a person actually takes a step.<sup>6</sup>

Benjamin brings to mind here the efforts undertaken by the 19th century photographer Eadweard Muybridge to examine the motion of a galloping horse as well as the high-speed photography of Harold Edgerton in the 1950s revealing the exact shape of a mushroom cloud a millisecond after the detonation of a nuclear bomb, or more benignly, the forms created when a drop hits the surface of some milk. We do in fact 'see' all of these things, they simply pass too quickly to be comprehended or examined. If photography provides us with the means to contemplate the transient in the visual domain, what might freezing sound produce? I like to think of it as a kind of revelation of a hidden spectral content in the recorded sound where a parallel world of this latent harmony is opened up as a result of being given duration. It also makes me think about the nesting of the infinite in a very small space (although I couldn't quite make an infinite freeze, that would be limited by the size of my hard drive and the durability of my computer!).

*Babel* from *Artificial Environment No. 8* for piano and tape (2012) uses a recording that was made outside Notre Dame in Paris while walking up and down a very international queue of people waiting to get into the cathedral. Speech is an extremely fertile ground for freezing

and finding hidden harmonies (mainly through the prolongation of vowel sounds). As one might imagine, there is nothing static about the harmonic content of such a recording – in fact it's quite 'random' and the challenge in this case is to try to make music out of this randomness.

6.

The writer Clive Scott<sup>7</sup> has stated that photography has the ability to turn an 'instant' (an exceedingly short space of time that the human mind cannot apprehend) into a 'moment' (a more inhabitable duration that is accessible to memory). Such a theory is of course extremely pertinent to the ideas of revealing the hidden that I have just mentioned. In addition, it might lead us to think about some of the emotions that are evoked through the prolongation in time of a split-second of image or sound that we find in audio-freezes, photographs and movie freeze-frames. Although the type of weight given to the sound or image through its extension in time is complex, it tends towards two poles – nostalgia or sentimentality if the freeze refers to what has been, and suspense or even death if it is about what comes afterwards. Scott also goes on to talk about the multiple temporalities contained within a photograph – that it is in fact a cross-section of things and actions each with their own duration. An audio-freeze then, might capture and present together the hum of a fridge with a chirp from some birdsong into one fused chord with no respect for temporal hierarchy.

These last two points concerning the triggering of feelings, and multiple temporalities are illustrated to some extent by *Artificial Environment No. 3* for string trio, clarinet, percussion and tape (2011). The piece begins with an audio programme note which is intended as an introduction of sorts to ideas about freezing. Unlike *Babel*, this piece has a stable harmonic content due to the dominance of the two



alternating bells. The piece itself is shaped entirely by the narrative contained in the uncut field recording that I was fortunate enough to capture one afternoon in the district of Les Marolles in Brussels. The events of the recording - the bells ringing for mass, the child singing and the train hooting - have a potential for sentimentality, especially in their frozen forms, while the cross-section of sound-time that each freeze produces shows us how different (and in fact unrelated) events of varying durations can be made equal through this same processing. It is probably important to state that the freezing was applied in a relatively 'intuitive' fashion to the original recording, following the flow of events rather than imposing a structure from outside.

7.

As a final example of the use of audio-freezing I'd like to talk about my installation *Performance Space #1 / Rue Darimon* (2012). It pushes the process of freezing one stage further by using live microphone feed as a source and takes the possible comparison between audio-freezing and photography quite literally by placing the two elements together in the same installation. The visual aspect of the work consists of a room-sized camera obscura - effectively half a camera, but lacking the chemical fixing agent needed to produce a permanent photograph. The version shown at Q-o2 in Brussels looked for the most part like a very high quality (and somewhat eerie) photographic projection because the scene itself was so static, occasionally lurching into action when a bird flew onto the roof or a curtain moved in the breeze. The idea of the 'frame' as manifested concretely by the projector screens, and temporally by the patterns of alternating frozen and unfrozen sound, is central to the work. The presence of these frames asks us to consider at what point in the process of creative

mediation/interference the raw sonic and visual materials might be considered a work to be contemplated and experienced as art, rather than just a live streaming of reality. The sonic element in particular teeters on the edge between music and non-music. On one hand the sound is coaxed into a fixed rhythmical framework of accelerandos and decelerandos, and its spectral content broken open and exposed in the frozen chord segments, while on the other, it is clearly at the mercy of the 'accidental dramaturgy of what happens', be it planes passing directly overhead, children shouting or very little at all (a general sort of background noise).

Sound files for the pieces and examples referred to in this article can be found at:

<http://joannabailie.com/index.php?cID=96>

<sup>1</sup> Douglas Kahn: *Noise Water Meat: A History of Sound in the Arts*, Cambridge 1999, p.16.

<sup>2</sup> Michael Pisaro: "Eleven Theses on the State of New Music" (2006), available online at <http://www.timescraper.de/pisaro/>

<sup>3</sup> See C.E.M. Joad: *Great Philosophies of the World*, Chapter VI: "The Philosophy of Change", New York 1930.

<sup>4</sup> See Jean-François Charles: "A Tutorial on Spectral Sound Processing Using Max/MSP and Jitter", in: *Computer Music Journal*, Fall 2008, Vol. 32, No. 3, pp. 87-102. Rick Altman (Ed.): *Sound Theory, Sound Practice*, New York 1992.

<sup>6</sup> See Walter Benjamin: "Little History of Photography", in: *Selected Writings*, Vol. 2., trans. Edmund Jephcott and Kingsley Shorter, Cambridge 1999.

<sup>7</sup> Clive Scott: *Street Photography from Atget to Cartier-Bresson*, London 2007.

# Composition, Change and Musical Objects in Infinite Music: Imagining the Next Millennium of Human Music-Making

Adam Harper

*Infinite Music*, published in November 2011, is my attempt at building a broad-based, progressive philosophy of musical composition and aesthetics for the modern era. I use the term 'modern' in its sense as 'contemporary' and 'new', since much of my approach is informed by aspects of music technology that developed relatively recently, at least as far as its long-term history is concerned. But I also use the term in its relation to concepts of 'modernity' and even 'modernism', concepts that many now believe to have had their day. These concepts often carry negative associations with aesthetic dogmatism and failed cultural projects, and for good reason, but in that they represent concerted and collective artistic focus on imagining new forms and, indeed, new ways of perceiving and living in a changed and changing world, their lasting importance cannot be emphasised enough.

*Infinite Music* aims to call for such a modernism, one which is directed towards the imagination of the new but which refuses dogma or limitations. Ferruccio Busoni's *Sketch of a New Aesthetic of Music* was perhaps the key inspiration in this regard, since it advocates dismantling musical rules without making very explicit assumptions or demands about the specific nature of music in the future. In