S.A.A.B.'s 'Mouth' at the Sightsonic Digital Arts Festival 2001

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Foreword

These are notes made after the fact in an attempt to both document an event and to prepare ourselves for future performances. Despite appearances, there was no real attempt (on my part at least) to present a logical argument in the writing of these notes. Hopefully they sketch out some of our thoughts.

As Edmondez remarks, the event enabled us to co-operate in a way which was new to us both. I've worked with him on other projects for many years but this was the first time in which we could truly explore the possibility of performing under one umbrella but with distinctly different methods and aesthetics.

It's interesting to note that both Edmondez and myself, having written these notes independently, both draw attention to the problem of the density of material in live performance but solve it by coming from opposite ends: Gwilly by reducing the material; Bowers by increasing it. Although we worked similarly by building a body of prepared material he found that the processes he was engaged in in the studio would be better applied in the live context. I, on the other hand, felt the opposite and tended to reduce the amount of live interactivity in favour of prepared material.

I was amused to note that Edmondez' comments about 'techno-wallowing' could, in some measure, be applied to my approach where 'the performer allows himself to be distracted by as-yet undiscovered combinations' instead of applying oneself to the rigours of disciplined performance methods. However Edmondez is, unlike myself, a trained musician and demonstrated this during the performance through his musicianly handling of somewhat unforgiving technologies. I wasn't so sure of my capabilities in this domain and tended to minimise the risks.

Richard Bowers, Cardiff, Wales - November 2001

Richard Bowers

In October an opportunity arose for me to apply some of my experiments in real-time improvisation with computers to a live setting via a commission from the Impressions Gallery, York. Under the name s.a.a.b. (The Sound of Aircraft Attacking Britain) Gwilly Edmondez (composer), Ian Watson (video artist) and I developed an evening of sound and vision which employed a hybrid of real-time audio signal processing alongside prepared videos. The sounds themselves were largely vocal in origin and the resultant noise ranged between incoherent reiterations of phonemes to meaningful sung or spoken phrases.

Recordings and death.

The deadness of recorded material poses an interesting problem. Any form of recording is a type of embalming, a fossilization of something transitory. A recording can never *be* the living source in the same way that an Egyptian mummy is not the living king. This is reflected in the way we consume different recorded interpretations of classical scores – a way of trying to bring the dead back to life but actually a kind of fetishism. The rigidity of recorded material thwarts our desire for uniqueness and originality – for life.

This dilemma carries aesthetic implications which parallel the moral implications associated with the legitimate uses to which we put the dead for research or commemorative purposes. Different cultures have different ways of negotiating the reality of death and have their own codes of conduct with respect to rites of passage and the disposal of human remains. Often the body has to undergo a transfiguration in order that the society can gain some governance over the natural process of decomposition - preservation at one extreme, cremation at the other, both being attempts at the cessation of time, of stopping change. Death is otherwise not death at all, but a moment in a continual cycle of regeneration. To deny an individual this freezing of time would be regarded as an infringement of a moral code and thus repugnant to its community. Also, it is a denial of the community's urge to celebrate craft and labour through the preparation for - and enactment of - the ritual. In parallel with this, the use of untransfigured recorded material in sonic art has the nakedness of an unadorned corpse showing a lack of celebration and pride of the kinds demonstrated through craft. It possesses the neutrality of photography with its attendant amorality.

In music, death may also be present in the separation of gesture from sonic result. In the nineteenth century this divorce was encouraged through the expansion of the symphony orchestra (with the resultant diminution of individual gestural contributions) and through the development of ever more sophisticated musical instruments which tended towards the smearing of the bond between gesture and sound. Wagner – a great exponent of death in music, Parsifal being characterised by the broadening of gesture into expansiveness beyond individual expression – complained of the visible puffing of the bassoon players and

averted his gaze accordingly. Consequently, his orchestra was hidden from sight at Bayreuth: the Greek spectacle transformed into crematorium music.

The problem, then, is how to bring these corpses to life. Some endeavours have been directed towards the restoration of the bond between gesture and result. However, it is a mistake to think that visible gesture must be present in order that that bond can be reaffirmed. Gesture can be made implicit in auditory terms alone by utilising the properties of sounds born of gestures and by using sounds which have their gestures already 'encoded' in our memories. Pierre Boulez' 'Anthèmes 2' is a good example of this [1]. One does not need to see it performed to appreciate the elasticity of the bond between the violinist's gestures and the computer's responses – we are sufficiently informed of the nature of violin playing to be able to make the connections. Indeed, the focus of interest in this model of musician-computer interaction resides in making those connections.

So, if the restoration of gestural signs is one way to restore life, what of a second – that of making evident the presence of labour in the result? In the sonic arts this labour cannot be confined to the manifestations of musicality in any conventional sense as the language now admits paradigms of craft from other art forms: painting, sculpture and so on. But the problem remains that the audience must feel the presence of the workings of human intelligence and dexterity if the result is to be engaging. Indeed, one manifestation of craftsmanship would be through the control of the dialogue between gesture and result referred to above. This is an essential quality of the plastic arts as well as of music. However, there has to be more. The problem of mastering larger forms alongside local detail is universal in art and although the models may change, the challenge continues to present itself.

Conquering time

If we are ready to accept this characteristic of tape music – that of it being dead - we are free to explore it in a positive light. One feature which greatly impressed me upon hearing Berio's 'Différences' [2] (albeit as a recording!) was the layering of time which he presented as its central concern: we are struck by the significance of this spanning of time. He presents us with a xerox of a photograph – something which is alluring precisely because it is disfigured and therefore exotic. It is also a kind of musical spectre.

This layering was something which informed my contributions to 'Mouth'. The prime image in the piece was the human voice in a number of its various forms and I had already created a body of sounds of transformed voices over the past decade. Naturally, I drew on these sounds and introduced them to the piece so that they would undergo further changes and be set against each other to create new resonances. This resulted in a telescoping of my accumulated work.

Along with the sounds was a group of three videos, produced by Ian Watson, which were

1) a visual response to a breathtaking soundtrack by Gwilly Edmondez;
2) a collage set against sound fragments supplied by myself; and
3) a video of parallel readings through a nonsense text derived from a romantic novel.

The sound from the latter was fed into the mix and was subjected to transformations along with the other sound sources.

I had found that my explorations into computer responses to real-time input had been more successful in the controlled studio environment and where only one performer was involved. Under these conditions the result could be balanced more directly by the performer. Tests using more musicians, albeit in the studio, tended towards chaos where it was near impossible to control the results without directing the performers too strictly – something which would have defeated my original intentions.

As a solo improviser I found I could produce a more controlled result but the output lacked richness in terms of layering of independent voices. So, although I was able to produce a substantial body of material, I needed to return to juxtapostion and collage to get the results I wanted and to forge a finished work. In other words, I deviated from the one-shot realtime performance paradigm (my original intention) towards a more flexible and relaxed process of temporal layering where improvisation generated the material to feed into subsequent layers.

From a personal aesthetic standpoint, I felt I could justify this move in the light of my belief that the computer should not force one towards closed forms of working. Endlessly tweaking parameters and adjusting code to create a single interactive model for an entire performance did not turn out to be a particularly fruitful way of working for me. I liked to think of the computer as a sketch pad – not as a paint-by-numbers kit – and I wanted to be casual in a context where the tools ordinarily encourage strictness. This relaxation meant I could broaden the palette and increase the layers of detail.

The tools

I used a variant of the CSound programme – DirectCSound – to build the tools at every stage of the piece's development. It's a programme I have always felt comfortable with and its range of unit generators is fairly comprehensive. Furthermore, the introduction of new programmable graphical functionality has meant that it's usefulness as a realtime synthesizer and processor has greatly increased.

The quickness of newer desktop computers has meant that processes such as granular resynthesis can be carried out real-time and the parameters adjusted

on-the-fly using on-screen sliders. This is of great benefit to the composer because 'tunings' and expressive gestures can be made in a live listening context – not pre-programmed and auditioned after rendering. Using DirectCSound I built an interface to a number of techniques which would benefit from such interaction – fof (wave formant functions), ring modulation, band-pass filterbanks, pitch shifters and so on. In the case of fof I stored incoming audio in a buffer which was continually being read and resynthesised in a fully controllable manner simultaneously by two independent fof generators – the buffer was read at a controllable rate; the pitch and density of the grains and the panning were all adjusted via the mouse [3].

Another benefit of real-time capability is the opportunity to create responsive systems [4]. I experimented with pitch detection and amplitude sensing to a) control parameters within the processing and b) generate events when certain conditions were met. Incoming audio was analysed for strength and segments of audible material written to function tables and labelled. The programme could subsequently read these segments, process them and play them back.

For the evening's performance I chose to extract material from the studio improvisations and make them available to me via a custom-built interface. This interface controlled the playback of pre-recorded sounds while the underlying programme carried out the processing and mixed the output with audio fed into the system from outside. The output from this bank of sounds was optionally fed into a buffer which was read by the fof generators for resynthesis.

CSound has a new group of opcodes which enable realtime phase vocoder analysis/resynthesis. I used these in a graphically controllable filterbank and pitchshifter. However, the heavy computational load of these programmes made it difficult to introduce any further processes into the set-up.

Contrasts

The evening was loosely programmed to allow for an alternation of 15 – 30 minute segments from Edmondez and myself. This provided some contrast between my somewhat desolate, distended vistas and Edmondez' more aggressive, virtuoso turntable performances. The accompanying videos provided a further layer for the audience to explore both in the performance space and in the adjacent rooms and this formula will be adopted for future events, although in a more integrated way.

Interestingly, a further contrast came with the closing half-hour being focused on processed live percussion – played by members of Pence 11 – where the allure of live natural instruments came as a kind of relief for many people. It was also aurally the most chaotic section – ameliorated, no doubt, by the presence of gesture.

Resources

Websites

Richard Bowers and s.a.a.b. - www.kakutopia.fsnet.co.uk
CSound - www.csounds.com
DirectCsound - http://web.tiscali.it/G-Maldonado/
Sightsonic Festival - www.sightsonic.com

References

[1] Pierre Boulez, "Anthèmes 2" – for violin and electronics.

[2] Luciano Berio, "Différences" – for 5 instruments and magnetic tape. Universal Edition.

[3] Richard Bowers, "Controlling FOG parameters in realtime using DirectCsound" [http://www.csounds.com/ezine/Summer2001/fog/]

[4] Richard Bowers, "A real-time Csound Orchestra" [http://www.csounds.com/ezine/Spring2000/realtime/]

Gwilly Edmondez

For me, the Sightsonic commission from Impressions Gallery presented two irresistible opportunities: to work with Richard Bowers on the kind of joint-platform we have previously craved; to have a cast-iron excuse to switch the emphasis of my PhD in composition (currently in its second year at York) to electroacoustic music. I knew that Bowers' greater experience in this field and his clearer vision generally would allow me the space to explore totally unfamiliar media, above all vinyl LPs treated as manipulable sound-sources. While I feel that most of what I produced with these new media was essentially third-rate, what I learned from the experience was gold-dust.

The challenge was to produce a work which could stand both as an extended concert piece, rewarding any who chose to sit out anything up to an hour and beyond, and as a full-flavoured ten-minute diversion, adhering more to the open-ended narrative of the installation. To achieve this, I decided to create a series of "backgrounds" over which to improvise music and noise from pre-selected passages of specially chosen vinyl records. Both background and surface melody were to be made up of human voice alone, no instrument sounds, a rule I set myself according to the gallery's expressed wish that the piece should centre on the human voice. This didn't really work, not because the idea itself was at fault, but ultimately because the backgrounds were far too busy, and actually would have worked quite well as stand-alone compositions in their own right.

Said backgrounds were built using Audiomulch, feeding in sampled vocal sounds from various sources, mostly found in my own extensive sound archive which goes back some 20 years: about 60% of my contribution to MOUTH came from a tape of two female vocalists, Helen Schmidt and Wendy Haynes (both Americans, both poets who drank generously) recorded in a quarry in 1987, as part of a recording project titled Nonchalance in Vain. I used Audiomulch to apply standard treatments such as granular synthesis, ring modulation and various envelopes and filters [1]. For each of my four prepared 'backgrounds' , I improvised over an hour of material in Audiomulch, then transferred the resulting recordings to Cool-Edit [2], where I extracted all the useful material and re-introduced raw, untreated samples, mostly from the same sources. Working in this way had a lot to do with why the backgrounds were so busy: I found it hard not to treat each stage of the process as a performance in itself.

What I have done, to remedy this, is to do away with the idea of backgrounds altogether, in favour of preparing a particular platform with specified sound-sources from which I can reproduce the kind of performances I was already doing in the studio before Sightsonic: the strength of content for a given performance would depend on careful selection of raw material, a thorough knowledge of the instruments used and an assured, confident execution of commands, devoid of any of the all-too-frequently encountered techno-wallowing, whereby the performer allows him/herself to be distracted

by as-yet undiscovered combinations.

As a result of my experiences, I have scaled down my performance outfit to a pair of Yamaha SU-10 samplers and one, sometimes two, Gameboy consoles, each containing a Nanoloop game cartridge, as developed by Oliver Wittchow in Hamburg. This provides a neat and manageable contrast between synthesized, electronic signals and 'acoustic', sampled sound, noise or music. A pair of Sony 20-DV handheld tape machines are also always to the side, giving the option of overt, rugged and real-time savagery, as and when it may be pertinent. I have found this set-up to be much more effective as a means to present graphic sexual narrative in a non-explicit manner: phallus and pudenda enjoying vivid interactive freedoms within the lurid technological agenda.

Resources

Websites
[1] Audiomulch www.audiomulch.com
[2] Cooledit - www.syntrillium.com
[3] Gwilly Edmondez and Kakutopia - www.kakutopia.com