



NICHOLAS J RYALL



University of Birmingham

MPhil Musical Composition

June 2014

COMMENTARIES

UNIVERSITY OF
BIRMINGHAM

University of Birmingham Research Archive

e-theses repository

This unpublished thesis/dissertation is copyright of the author and/or third parties. The intellectual property rights of the author or third parties in respect of this work are as defined by The Copyright Designs and Patents Act 1988 or as modified by any successor legislation.

Any use made of information contained in this thesis/dissertation must be in accordance with that legislation and must be properly acknowledged. Further distribution or reproduction in any format is prohibited without the permission of the copyright holder.



CONTENTS

1) **Introduction**


2) **“sk8erpunk”** for electro-acoustic media/video

- *Commentary*
- *Example of file list*
- *‘Vox Novus’ publicity (‘UK Mix’ + ‘Order of Magnitude’)*

3) **“Lines of Defence”** for electro-acoustic media/video

- *Commentary*
- *‘SuperCollider’ codes (5)*
- *Log of files*
- *Examples of ‘Final Cut’ screenprints*
- *‘Cool Edit Pro 2’ session screenprint*
- *Internet search details*
- *Exhibition publicity*

4) **“Untitled Piece”** for small chamber orchestra

- 
- *Commentary*
 - *Analytical diagram of sections A - K*

5) **“Aquanautics”**
for electro-acoustic media

- *Commentary*
- *‘Cool Edit Pro 2’ screenprints (signal manipulation and session examples)*

6) **“Storm Ghosts”**
for electro-acoustic media

- *Commentary*
- *Poems*
- *‘CSound’ codes (3 examples)*
- *‘Cool Edit Pro 2’ session screenprints*

7) **Acknowledgements**




Introduction



Introduction

My interest in musical composition covers a broad range of styles and genres and this MPhil Submission is designed to reflect that range by a representative sample of my work. Before I embarked on a MA taught course at Anglia Ruskin University my work had primarily been traditionally notated music, partly because of the growth of digital technology (i.e. that it did not exist in its present form) and limited opportunities to use analogue methods, such as synthesisers and tape manipulation, during the MA I began to experiment with electronics and acousmatic compositional tools. These included becoming familiar with PC based software, particularly CSound and Cool Edit Pro, both of which have been used to differing extents in this MPhil submission.

Initially trained as a classical guitarist and flautist I have been composing to varying degrees since I was ten years old. From that point I became interested in rock music and jazz. Much of the rock music that has influenced me is more ~~left field~~ than mainstream and this influence will be discussed in relation to the pieces submitted themselves. In terms of jazz my interests lie predominantly in jazz orchestration and ~~free~~ jazz. My starting point was a developing interest in the music of John Coltrane . mid-period and his later work. I will elucidate further and in more detail about these influences in the examination of various pieces.




In terms of classical or art music I have been particularly interested in the music of the medieval period, particularly Guillaume de Machaut. I am interested in music from the start of the twentieth century onwards, including the orchestrations of the English pastoralists and the music of Bartók and Ligeti for instance, with focus on their work for chamber ensembles.

I am also interested in Music Theatre. This developed when I first discovered the music theatre of Harrison Birtwistle, particularly *Punch and Judy* and *Down by the Greenwood Side*. I have never been a particular fan of opera *per se* but Birtwistle's *Mask of Orpheus* introduced me to both a fascinating musical language and especially the staging and use of three separate entities for each character. This led me back to the work of Brecht and Weill and Berg to name but a few composers.

Although there is no specific music theatre work submitted for this MPhil there are elements in some of the works which I will highlight later. There is, however, a work which can be regarded as a *soundscape*. I began to get interested in working with other artists in collaborations and there is an example of this in the portfolio. The use of, and juxtapositions of, *found sounds* and generated sounds, although not by any means new (*musique concrète* onwards), is a fascinating compositional area.

There have been points when I have been using numerical systems and patterns, influenced by the work of Boulez and Xenakis, for example, but I have often found



that although intrinsically interesting in themselves, they do not necessarily generate cogent musical material, so they do appear, but not in an overt way.

My musical language utilises a variety of types from rock and jazz through sonic landscapes to free twelve note/chromatic and semi-tonal writing. The following sections deal with the submitted work and I will detail the aspects discussed in general in this introduction with regard to individual pieces.

“sk8erpunk”

for electro-acoustic
media/video

- *Commentary*
- *Example of file list*
- *‘Vox Novus’ publicity (‘UK Mix’
+ ‘Order of Magnitude’)*

“sk8erpunk” (dur: 1’00)

for electro-acoustic media


The origins of sk8erpunk were realised in a project working with disaffected young people in the village of Gamlingay. The village, with its overspill from the Bedford area, had a number of social problems with teenagers, and a film project was implemented, with the local youth club, to find an outlet for some of their frustrations. I was asked by the sponsors, the Arts Picturehouse in Cambridge, to work with the film maker and the young people on the soundtrack. As all those involved with the project were all skateboarders I decided to record them performing various skateboard moves and then utilise these to build the soundtrack. That particular soundtrack was done in partnership with the teenagers themselves. When I embarked on studies at Birmingham I decided to revisit my original recordings. At this point Vox Novus, an American radio programme, was calling for works for their 60 x 60 output. This is one hour of one minute pieces, so I decided to create sk8erpunk to send to them. Although not initially played on that programme it was subsequently played in the 2010 60 x 60 Dance-Order of Magnitude Mix played on the FoFA Gallery, Concordia University of Montreal, Quebec, Canada on May 30th. This can be accessed at:

http://www.voxnovus.com/60x60/2010_60x60_Dance_Order_of_Magnitude.htm.

It was also broadcast on the 60 x 60 (2006/UK Mix) in 2006, available at:


http://www.voxnovus.com/60x60/2006_UK_Concert_Program.htm

The piece was also programmed as part of a University of Birmingham BEAST concert.



Each sample was auditioned for its potential for transformations and filed. Individual samples were then subjected to a range of effects in Cool Edit Pro. Samples that were suitable for the basis of a rhythmic/drum pattern were looped to give the foundation track on which other samples were added to build a relatively dense structure. This was designed to give a maximum impact over the single minute. Stylistically the influence on the piece is that of electronic Dance music. Subsequently a number of techniques particular to that genre were employed in the composition of the piece. The looping of the rhythm tracks gives a tight bpm (beats per minute) with relentless rhythmic impetus. At the end of the piece a time and pitch stretching technique were used (Squirrely) which is a common technique used by dance DJs during live mixing on their decks . using their hands to control the speed, and hence the pitch, of the vinyl record to finish or sequence into another track. A good example of this is Fatboy Slim (aka Norman Cook) Funk Soul Brother where he uses this, but in this case restarts the track. I have just used this to end the piece.

Other dance genres have been loosely incorporated into the style of the piece but not in a rigid or specific way. For instance the sub-genres of Dance are quite tightly classified, mostly by bpm, types of rhythm patterns, pitches and instrumentation for instance. Such sub-genres as Jungle, Hard House, Deep House, Acid House probably influenced some of the sonic statements but, as I have noted before, not in an overtly conscious way.



The piece is, however, most definitely not a *Dance* track *per se* but more *serious* music which is based on sampling and manipulation techniques first and foremost, with the *Dance* music influence as a conduit with which to focus the electronic material.

It is interesting to note that when the piece was played in the *Vox Novus* *Dance Order of Magnitude* all the pieces were actually used as the basis for improvised dance sequences but this naturally is a far cry from the aforementioned clubbing scene.

The video to accompany the piece was added later . it was not used in the *Vox Novus* broadcasts but was in the *BEAST* concert. It was filmed by simply hanging a digital camera around my neck and walking around *Barbara Hepworth's* garden in *St. Ives, Cornwall*. I then took the video and sped it up to last exactly one minute. The interesting part was the still that I inserted from one of the frames . it looks like a rough in a hoodie. I wrote to the estate of *Barbara Hepworth* to ask for clearance to use the video for performances and *Lady Bowness* kindly agreed.



sk8erpunk.pdf

“Lines of Defence”

for electro-acoustic media/video

- *Commentary*
- *‘SuperCollider’ codes (5)*
- *Log of files*
- *Examples of ‘Final Cut’
screenprints*
- *‘Cool Edit Pro 2’ session
screenprint*
- *Internet search details*
- *Exhibition publicity*


“Lines of Defence” (dur: 30’)

for electro-acoustic media

Lines of Defence was a collaborative project with the artist Bettina Furnee and film maker Tim Sidell. In 2005 Bettina Furnee recorded a year of coastal erosion at Bawdsey in Suffolk by means of time lapse photography. The resulting images were then realised into a visual narrative by Bettina Furnee and Tim Sidell. I was then approached to add a suitable sound track to reflect and complement the film.

As the project (and the film) is a visual narrative about the destruction of a part of the Suffolk coastline by sea and weather I determined that I would need to compose something that would reflect this gradual dynamic erosion but at the same time almost have a sense of inevitable stasis . that is that unless there was some kind of manmade intervention the process would continue ad-infinity. As a footnote it is worth noting that certain sections of the Norfolk and Suffolk coastlines have been protected while others are left open to the full force of nature. I did not want to produce anything too emotive or literal so I decided to compose a soundscape that alluded to the processes of nature but at the same time would be somewhat distant from the actual footage.


I had used SuperCollider to generate artificial wind type sounds for Storm Ghosts in a basic way, so I decided to experiment with a much more developed and intricate use of the basic code block to produce material that could stand alone as the basis



for the soundscape. I generated a number of different blocks and then selected those which felt most suitable in terms of interest and diverse sonic shifts. Essentially, I manipulated the frequencies of the SuperCollider blocks and left the modulator operations as per the original block. I discovered by judicious experimentation that this process produced interesting and arresting sounds as the random generator object (rrand) would sweep through the frequency parameters set and give the desired effect. In essence, as a composer, I was controlling the random elements by delineating the parameters and this seemed to me to be the perfect basis to express my ideas for the central tenet of the film.

I then realised that I could combine these blocks (these are the Quads) to produce even richer and more complex interactions. This process yielded five suitable program blocks. I then took the Hiqblock and manipulated this in Cool Edit Pro 2 to produce a distorted version (Hi Fuzz) and two others initialising the harmonic Resonance tool. I utilised a gradual pitch slide on both and re-sampled one of them at 16000HZ.


At this point I met up with the artist and filmmaker with my ideas. It is interesting to note that the seemingly democratic process of producing a multi-media work is not easy at all. I had fortuitously not spent a lot of time on producing a finished work at this stage as I realised that there would possibly be differences of opinion and necessary re-workings before the final product. Eventually the inevitable artistic compromise was agreed. The opening section of the film and the sunrise/sunset



sequences were to utilise the main blocks in certain sequences so there was a degree of manipulating sections of the files to build the soundtrack in the film maker's software (Final Cut . so the files were all converted to aiff format). The result was a more dynamic and evocative first half with the low block gradually dominating the middle section of the film, producing a sense of resigned inevitability, before the return of other wind voices that move the sonic and visual narrative to the end of the film.

Given that this is a soundscape and that there were random elements involved in the original sound generation, there is no climax or conventional structure as such. If anything, the soundscape could be seen to be shadowing the film as entering at a set point and leaving at another set point of a continuing process of change. I had also decided to make no reference to seasons nor to tidal rhythms as to me it was the relentless process of erosion that was the main concern.

In terms of situation of the work there are a wide range of reference points. The TV documentary utilises music/soundscapes but thin in a very superficial way and not necessarily deeply connected to the narrative. So leaving that and conventional film music aside, this work belongs more to the soundscapes of, say, Chris Watson from the BBC's Natural History Unit and similar projects . although, in this case, I was using artificially generated sounded rather than live natural recordings. There are good reasons this this . for instance I often hear the resonate pitches of metal structures vibrated by the winds on the North Norfolk coast . fascinating sounds but



for me difficult to record in the field due to the omnipresent wind noise . a slight irony.

It may be worth mentioning that a further project with the artist and filmmaker (~~Powerhouse~~ not submitted here as not deemed suitable) was more difficult and, although satisfactory, did not yield the artistic rewards that ~~Lines of Defence~~ did.

~~Lines of Defence~~ also formed part of an installation at the Tower, Walton-on-the-Naze in 2006. Publicity is included but unfortunately my name is omitted!

I have included a copy of the film but if the DVD copy fails to play in any machine the film can be accessed at:

www.ifever.org.uk/camera/

or

www.vimeo.com/9448884

NB: As far as I can tell it cannot be accessed through Firefox but this may just be on particular PCs.



Lines of Defence.pdf



“Untitled Piece”

for small chamber
orchestra

- *Commentary*
- *Analytical diagram of sections
A – K*
 - *Score*

“Untitled Piece”

for small chamber
orchestra

Scored for:

**2 Oboes; 1 Bassoon; 2 Horns in F; 1
Trumpet (C); 1 Trombone; 5 Violin
1s; 5 Violin 2s; 4 Violas; 3 ‘Cellos; 2
Double Basses**

(C Score)



“Untitled Piece”(dur: 9’07”)


for small chamber orchestra

This piece is for wind (2 oboes, 1 bassoon), brass (2 horns in F, 1 trumpet, 1 trombone) and strings (5 violin 1s, 5 violin 2s, 4 violas, 3 cellos, 2 double basses). I decided to leave out any percussion, the flute and the clarinet, as the chosen sonic combination would give me the best ensemble in order to realise my ideas.

In this piece I wanted to investigate the blurring of conventional tuning, and make extensive use of this as an ethos for ~~de~~-tuning around central pitches to de-stabilise the expected pitch sequence. I also wanted to attempt to emulate electro-acoustic sounds with acoustic instruments, in some passages and sections.


The piece also contains some use of semi-improvisatory/aleatoric elements, particularly in the use of pitch bends, vibratos, glissandi and ~~key~~ flapping in the oboes to produce a fast moving texture, similar to that employed by James Clarke in his Oboe Quintet (1992).

The basic language used in the piece is primarily free 12-note, but this is not kept to too strictly, and I decided that any language or stylistic technique that fits into the aesthetic of the composition could be utilised.



Structurally the composition is built up of a series of contrasting sections, beginning with long held tones that interlock and provide shifts of colour and a rhythmic gesture in the double basses that is developed during the piece. The second section continues these ideas, but introduces new timbres and textures, leading to the third section that contains a melodic fragment played by the trumpet and trombone. In the next section the tempo slows down and long held chord tones lead to a treatment of the rhythmic gesture in the bassoon and trombone. After a pause the fifth section has more activity, particularly in the oboe and string textures, before resuming the starting tempo and suddenly becoming very rhythmic, with the lower strings acting as a quasi echo to the rhythms in the wind and brass. This short section leads into extended textures in the strings and wind, with the melodic material again in the brass, before the eighth section introduces a short passage of counterpoint around the melodic material, followed by a return in the next section to long notes, but now with more pronounced glissandi in the strings and more extreme pitch bends in the reeds and brass. Section ten begins with the melody stated by the first horn, before an accelerating tempo through two bars of held notes leads into a new tempo and a rhythmic but more fragmented and staccato texture.

Section ten takes the acceleration to the faster tempo and cross layers the material in quartet groupings although the instruments multi-layer in various densities of textures before decelerating to a chromatic chord across the instruments in section twelve, with Oboe 1 tailing off the section. The chord is restated before the melodic material that was overtly stated by Horn 1 at bar 76, although appearing in various



guises previously, is developed in layers and, once again, in varying densities towards the end of the piece. The full ensemble then restates a variation of the previous chord as an end point to juxtapose with the open beginning of the piece.



Untitled Piece.pdf

“Aquanautics”

for electro-acoustic media

- *Commentary*
- *‘Cool Edit Pro 2’ screenprints
(signal manipulation and session
examples)*




Aquanautics (3 Studies) (dur: 13' 43")

for electro-acoustic media

The basis for this composition was a set of live improvisations using commercially available party hooters, consisting of an untuned single plastic reed and a cardboard bell. The instrument can only produce one basic pitch, which is coloured with a wide range of noise formants on production of the sound by blowing at various intensities.

The live improvisations were recorded in stereo onto Cool Edit Pro 2 on a PC, via a digital interface. A variety of playing techniques and strategies were used, including wind techniques such as flutter tonguing, vocalising whilst playing, overblowing and manually distorting the cardboard bell whilst playing, as well as playing more than one instrument at a time on some takes. On some of the improvisations live electronics were used, in the form of analogue effects (fuzz-boxes, delay and wah-wah pedal), again in an improvised way. Spatial movement in the stereo picture was realised by moving around the room whilst performing. In particular the influence for the initial idea was Evan Parker's solo saxophone improvisations.

A short extract from the full set of improvisations was then selected for further manipulation. This sound file was loaded into Jasmine software on the Mac. Jasmine is primarily a sound editor but enables the sound file to be dragged backwards and forwards at varying speeds by the mouse, in the same way tape can



be moved across playback heads using the reels as controllers. This generated a second layer of improvisation, with the mouse as the instrument responding to the original sound file by alternately letting it run or dragging it backwards and forwards.

The Mac was connected to the PC and the improvisation recorded in real time onto Cool Edit. The stereo recording was then split into mono files and each of these reversed, resulting in four sound files. These were then overlaid in Cool Edit's multitrack mode and panned. This resulted in a third layer of improvisation and was then mixed down to stereo to create *Aquanautics 1* (dur; 4.43). This first study investigates a dense sound world with constant movement.

Aquanautics 2 (dur: 4.31) was composed from fragments from the first study that suggested Morse code type signals. It was realised entirely in Cool Edit. The sounds are separated and there is a significant use of silence. The sounds were treated primarily using normal and backward reverberation, multi-tap delays, undersampling and filtering. This results in a contrast to the first study . a more intimate investigation of the material, and the relationship between live and processed sound. There is no direct improvisation in this study.

Aquanautics 3 (Dur: 4.33) is an attempt to combine the elements of the first two studies into an aural landscape. This study is closer sonically to the second study, and uses similar techniques, but attempts to fuse elements of the first two. It builds from a similar starting point to that of the second study but gradually increases in



Aquanautics.pdf



“Storm Ghosts”

for electro-acoustic media

- *Commentary*
- *Poems*
- *‘CSound’ codes (3 examples)*
- *‘Cool Edit Pro 2’ session screenprints*




“Storm Ghosts” (dur: 11’06”)

For electro-acoustic media

Storm Ghosts is a sonic evocation of impressions from visits to the far North West of Scotland, primarily the area around Cape Wrath and Faraid Head. It is a development of previous compositional ideas and the basic premise was a piece called Storm Crow composed for my MA submission. I then decided to develop the idea much further to compose a more fully formed piece realising my compositional concerns . namely a piece where the sonic backdrop is formed from a large range of samples from commercial recordings. This could be perceived as contentious given copyright legislation but I wanted to see if I could take the raw samples and then manipulate them so they would become part of the musical fabric and essentially unrecognisable from their origins. The title of the piece really suggests the ethos of the composition. Standing on the headland of Faraid Head with Cape Wrath to your left and the view of the horizon with nothing until the Arctic Circle produces, at least for me, a kind of quasi primitive set of emotions encapsulating received history that suggested the rationale for the piece.

Initially I had tried to construct the spoken word part by sampling commercial recordings of female singers, for instance Nico, Björk, Nancy Sinatra, Brigitte Bardot and the Shangri Las, to name just a few. However, despite long periods of auditing and digital cut ups, I abandoned this as basically obvious and not in keeping with my ideas. I then decided to write a lyric/poem that would reflect the ethos of the piece.




There is some integration of the words to some of the music but basically the two bounced off each other in terms of inspiration.

The piece was constructed in three parts which were then dovetailed together. I found that a work utilising so much sonic material needed careful cataloguing and filing.

The bulk of the compositional process consisted of hearing a sound, or in some cases hearing a recording by chance, and then sampling from the recording. The sample was then transformed by experiment using a variety of software or both PC and Mac platforms. On the PC the primary software was ~~Cool Edit Pro 2q~~ and on the Mac a variety of software such as ~~CSoundq~~ ~~Asmineq~~ and ~~Soundhackq~~ were used as well as ~~Audacityq~~ on some occasions.


As with most creative processes, there eventually was a satisfactory sonic result for each sample. The next stage was to build the samples and weave them into textures. Again, experimentation was a key process and involved many attempts, some working, some not. I realised that I would need to file multiple ~~Cool Editq~~ sessions with appropriate file names and dates so I could always revert back to the original compilations of material as necessary. I also decided to use the sample of a carrion crow that I sampled from a film in which I participated as an interviewer about Cambridge United . fortuitously it came very close to an outside interview and we had to retake . I did however realise that this was an excellent sound for the piece and became a significant sonic gesture in the mix . and another ghost voice.



To give an example of an individual sample I decided to use the instrumental trumpet section from *Sleepwalkers Woman* by Scott Walker (from the CD *Climate of Hunter* 1983) as this has a mournful, evocative exposition of the song's melody. Whilst wanting to maintain the character of the music I set about disguising it by reversing the wave, pitch shifting and adding various reverbs and echoes and then seeing how it fitted into the mix of the third section. This is a brief example of the process to which individual samples were subjected.

In many ways the selection of samples represented my *past* as it were, in that they all came from my CD collection. The inclusion of not only Scott Walker, but particularly King Crimson, Yes, Frank Zappa, Emperor to name a few represent my listening in the left field rock genre. This fitted perfectly with the idea of *Storm Ghosts* that is once could be stood on Faraid Head looking out to sea with the wind carrying those memories in a soundscape almost like a *sonic dream*

I have not listed every sample for several reasons. Firstly, this was an exercise/study in utilising found material and attempting to retain the character, whilst disguising the source and producing a new sonic experience. I do not think this worked in every case . for instance the *Black Metal* double bass drum from Emperor's drummer (Emperor, *In the Nightside Eclipse* track 8, *I am the Black Wizards* Candlelight 1984) may be somewhat obvious, but this is necessary for the



flow of the piece. If this type of composition were to be developed, then careful attention would need to be paid to avoid any possible litigation.

In terms of the musical literature there are many composers who use techniques such as this, but a major influence was Jonathan Harvey's *Mortuus Plango Vivos Vocoq.* the difference is that his piece is essentially pure sampling of voice and bells whereas I went to the other extreme.



Storm Ghosts.pdf

Acknowledgements



Acknowledgements

Thanks to:

Dr. Scott Wilson and staff and students of the University of Birmingham.

Bruce Godfrey for copying and binding

Kathleen Butler for typing and setting.