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Commentary on the Portfolio of Compositions submitted for the degree of PhD in Music Composition, University of Durham by Mariam Rezaei, 2016

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Commentary
on the
Portfolio of Compositions

submitted for the degree of
PhD in Music Composition
University of Durham

by
Mariam Rezaei

2016

Acknowledgements

Contents of Portfolio

Chapter 6

Chapter 7

List of Compositions

1.   *NOISESTRA: TRAX*   duration:

     June 2012   0h08'04"

     Turntable Ensemble, String Quartet, Synth, Percussion, Harp, Horn in F,

     Accordion, Bass Guitar.

     Video Graphic Score includes Audio Recording

2.   *NOISESTRA: NOISEstra*   duration:

     June 2012   0h07'12"

     Turntable Ensemble, String Quartet, Synth, Percussion, Harp, Horn in F,

     Accordion, Bass Guitar.

     Video Graphic Score includes Audio Recording

3.   *NOISESTRA: FUMP*   duration:

     June 2012   0h08'28"

     Turntable Ensemble, solo 'cello.

     Video Graphic Score includes Audio Recording

4.   *NOST*   duration:

     December 2013   0h09'09"

     Two Turntables, Dictaphone Cassettes, NOIZE Choir (12 performers)

     Graphic Score and Audio Recording.

5.	*ESFA Quartet*					duration:

	May 2013						0h14'30"

	Turntables, Harp, Piano, Double Bass.

	Notated Score and Audio Recording

6.	*ANCE*						duration:

	September 2013					0h10'00"

	8 Turntables, 8 Dictaphones.

	Graphic Score and Audio Recording

7.	*BAWWWY*					duration:

	April 2014						0h32'55"

	Turntable Quartet

	Text Score and Audio Recording

	Total length					**duration:**

							1h 30' 18"

<u>Music Track List</u>

Track 1

NOISESTRA: TRAX   duration: 0h08'04"

Turntable Ensemble, String Quartet, Synth, Percussion, Harp, Horn in F,

Accordion, Bass Guitar.

Apartment House and NOISESTRA

Track 2

NOISESTRA: NOISEstra   duration: 0h07'12"

Turntable Ensemble, String Quartet, Synth, Percussion, Harp, Horn in F,

Accordion, Bass Guitar.

Apartment House and NOISESTRA

Track 3

NOISESTRA: FUMP   duration: 0h08'28"

Turntable Ensemble, solo 'cello.

Apartment House and NOISESTRA

Track 4

NOST   duration: 0h09'09"

Two Turntables, Dictaphone Cassettes, NOIZE Choir (12 performers)

NOIZE CHOIR and WAX MAGNETIC (Joe Murray (a.k.a. Posset) and Mariam

Rezaei)

Track 5

ESFA Quartet   duration: 0h14'30"

Turntables, Harp, Piano, Double Bass.

Mariam Rezaei, Rhodri Davies, John Tilbury, Michael Duch.

Track 6

> *ANCE*   duration: 0h10'00"

> 8 Turntables, 8 Dictaphones.

> WAX MAGNETIC (Joe Murray and Mariam Rezaei)

Track 7

> *BAWWWY*   duration: 0h32'55"

> Turntable Quartet

> Mariam Rezaei

Total length   **duration:**

                                        1h 30' 18"

Chapter 1: Introduction

The compositional practices in turntable writing as a solo and ensemble instrument in the works of this portfolio are research based, exploring a variety of methods to notate work in response to experiments. The challenges and opportunities that have arisen throughout this development of composition have directed the research along different routes, promoting the turntable as a musical instrument in different instrumental ensembles. Devising a repertoire that did not previously exist has in part developed the turntable as an instrument where there are gaps in its history and also helped firmly established its place within contemporary music instrumental ensembles.

Within this commentary, the defined techniques employed in the turntable works are not simply derived either from hip hop turntablism or New Art turntablism, but instead establish a synthetic practice. Skills from both traditions are mixed together with fluidity in order to establish a new repertoire for turntable through taught skills by developing a new ensemble of turntablists, NOISESTRA. This approach, combined with experiments in graphic notation, brings together performers in a new way, where established and highly skilled musicians work with young performers in a community music setting, willing to experiment and fail in search of successfully creating new sounds with turntables.

The research includes a working methodology of compositional process that relates to popular teaching theories of Roger Hart, David Holb, John Stevens and Neil Fleming. Observations from conventionally notated and graphic scores, analysed writings of Katz, Smith alongside Brewster and Broughton broaden the search for the appropriate means for which to notate for turntables both with and without instrumental ensembles.

Concluding that there is no one correct way to notate for turntable, I demonstrate several notational methods including an adaptation of the 5-line system in some compositions, and experiment with 2D, and 3D video graphic scores in others, proving that there are advantages and disadvantages in each individual context.

I evaluate my compositional practice and assess the success of strategies in writing for turntable ensemble by comparing my initial theoretical ideas with the practical experiments and results.

It is recommended that performers and readers of this work read the glossary and notes in *A Guide to Turntablism and Turntable Notations for Performers*[1] found in the appendices before reading this commentary.

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[1] Please see page 4 in the Appendices for *A Guide to Turntablism and Turntable Notation.*

Chapter 2. Literature Review

In my previous research into DJing and turntablism as part of my undergraduate study[2], I explained how cassettes, VHS videos and hip hop[3] magazines were key learning tools for turntablist techniques in the 1990's and early 2000's. There was very little academic literature about turntablism at that time and I was referencing materials that hadn't been thought of in an academic context before. These formats were the main evidence used for referencing to give an honest account and description of the history and technical development of DJs in turntablism. Since then, with the development of the internet allowing DJs to share information globally via sound files and videos, there have been several DJing manuals and academic studies released.

I have chosen a diverse range of authors, from popular and academic books with authors from the UK, USA, some with high ranking book sales and others, reputable academics.

Danny Rampling's *Everything You Need To Know about DJing & Success*[4] is an example of a book that describes basic DJing skills with a generalized overview of how to DJ successfully, with large autobiographical quotes. On one hand the book isn't particularly unique in its content, only basics elements of DJing are covered and it has relatively little new information that isn't conveyed in older DJing tutorials/manuals. On the other hand, Rampling does have the credit of being written by a successful Dance Music DJ and it is important to note that a number

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[2] Rezaei, M. 2006. *Turntable Performance Practice: Development of Performance Practice and Techniques*. BA Thesis, University of Leeds.

[3] Hip hop spelling taken from Brewster, B & Broughton, F. 2006. *Last Night A DJ Saved My Life*. London: Headline. p120.

[4] Rampling, D. 2010. *The Essential Guide to Djing and Success.* London: Aurum Press Ltd.

of books on DJing are written by keen and enthusiastic observers not successful

career DJs. Rampling talks about composition with turntables in the context of DJ

mixes and mixtapes.   This is the first piece of writing that I have found that

analyses successful mixing in such detail, away from 'reading the crowd'

technique (which Brewster and Broughton rely heavily on) and gives a clear

analysis, formula and visual aids. There are slight musical misgivings but

Rampling's intentions are in a genuine place .

> Working along a principle know as 'Golden Section' used by
> Classical Composers such as Debussy, try to aim for the 2/3 point
> for the climax of the mix. This is possibly the most satisfying shape
> for any art-form, as it allows the concluding 1/3 to serve as a 'cool
> down' period, where the mix can be brought back down.[5]

Though it is debatable where the 'Golden Section' of any work is in fact at the two

thirds through point of a work, I believe Rampling is correct to advise a learning

DJ to put thought into content, form and dynamic structure when assembling a

mix/mixtape. This further thinking and development of the musicianship of DJing

is predominantly missed out by a number of texts which may link back to authors

not being DJs themselves.

 DJing for Dummies[6] by John Steventon is predominantly an instruction manual,

with examples of how to set up basic DJing kit alongside learning basic DJ

techniques. I realise in the title that there is an implication that the book will

provide clear explanations, however I think the book is more patronising than

necessary, as much as it is packaged to be a friendly guide. 13 out of 26 chapters

are about equipment with the remaining chapters focusing on lifestyle, for

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[5] Ibid. p73
[6] Steventon, J. 2006. *DJing for DUMMIES.* London: John Wiley and Sons Ltd.

example 'Getting Drunk When Playing'[7], 'How Do I Go To The Toilet'[8] and 'Make Friends'[9]. There are plenty details to how to look and appear to be a DJ with one chapter on how to beat match and one chapter on skratching. It is in the chapter on skratching that Steventon shows his lack of understanding on the principles of skratch technique, or in fact turntable set up techniques which he has talked for so long about thus far.

> The two ways to control the stability of your needle are through the down force acting on the needle, and the angle that it 'digs' into the groove. Simply set the needle so that it angles into the groove by 10 degrees and it'll stick to the groove like glue. The downside, though, is that the needle wears out the groove like a hot knife through butter[10]

If a turntable needle has been set correctly, some wear and tear will in fact occur, but only after highly excessive use (years of close use of certain record grooves by a skratch DJ) should there be the worn out 'hiss' effect that Steventon alludes to but there is no need to set the needle at a heavier weight. He further worsens this advice by telling the DJ to 'add a weight, such as a coin or Bluetac'[11] to DJ needles worth hundreds of pounds. That really will mean you cut into your records like a hot knife into butter. I can't honestly agree with some of the advice in this book, some of it is matter of fact manual type information but the emphasis on 'lifestyle' and incorrect advice about equipment is alarming.

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[7] Ibid., 350
[8] Ibid., 342
[9] Ibid., 309
[10] Ibid. p242
[11] Ibid. p242

Of the other high profile DJ books available, I read Sophy Smiths *Hip-Hop Turntablism, Creativity and Collaboration*[12], Bill Brewster and Frank Broughton's *Last Night A DJ Saved My Life*[13] and Mark Katz's *Groove Music*[14].

Last Night A DJ Saved My Life makes for difficult reading for a composer and turntablist. The most journalistic of the three books, there is a strongly misogynistic and colloquial tone throughout the whole book. From the beginning of the book, Brewster and Broughton depict an inaccurate stereotype of DJs, immediately likening DJs to spiritual leaders such as 'shaman's and witchdoctor's'[15]. The constant reference to music as a religion and the DJ as a spiritual leader is excessive from the beginning and has no real basis in anything other than a hedonistic opinion. There are also several conflicting statements throughout the book. In the case of the 'Art of the DJ'[16] chapter, Brewster and Broughton define that the DJ can be like a musician.

> The DJ is a musician. It just happens that in place of notes he uses songs. Where a guitarist can impress an audience by playing a thirty second sequence of chords, what a DJ does takes longer – A DJ needs to be judged on a two or three-hour narrative of tracks. [17]

An argument that is constantly reasserted throughout the book is that a successful DJ's skills are in their choice of records and their ability to 'read the crowd'. DJ Fatboy Slim explains

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[12] Smith, S. 2013. *Hip-Hop Turntablism, Creativity and Collaboration*. London: Ashgate.

[13] Brewster, B & Broughton, F. 2006. *Last Night A DJ Saved My Life*. London: Headline.

[14] Katz, M. 2012. *Groove Music. The Art and Culture of the Hip-Hop DJ*. Oxford: Oxford University Press.

[15] Brewster, B & Broughton, F. 2006. *Last Night A DJ Saved My Life*. London: Headline.p2.

[16] Ibid.p14

[17] Ibid.p15

> a good DJ is always looking at the crowd, seeing what they like,
> seeing whether it's working; communicating with them, smiling at
> them.[18]

This is further reinforced, where the reader is told a

> great DJ should be able to move a crowd on primitive equipment…
> its much more about finding amazing new songs and being able to
> pull them out at the right moment.

Three critical arguments are made here, where a good DJ can be defined by an

audience's immediate response, that a good DJ can only be judged by a 2 to 3 hour

long mix and that a good DJ can be judged from a momentary choice of the one

correct track at the correct moment. The book is full of contradictory statements

like this and leaves a critical reader with little more than skepticism of the sources

and authors. I don't believe that the answer is that all three of these statements

are true, the sign of a good DJ is significantly more complex than choosing one

record, reading a crowd or how they make a long mix. The one thing that this

book constantly avoids discussing, musical skills, is the glue that binds together

the three technical skills Brewster and Broughton talk about.

Throughout the book, there is always a detour away from describing DJing

techniques or a pedagogy of DJ development but always reference to popular

tracks with interviews from DJs and Producers. There are anecdotal stories of DJs

working on techniques, for example, Grandmaster Flash perfecting a 'quick mix

for the Adventures of Grandmaster Flash on the Wheels of Steel'[19] but lacking

explicit technical explanations of what a quick mix is or how Flash composed the

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[18] Ibid.p17
[19] Ibid. p93.

15

mix.[20] There is an emphasis on musical genres throughout this text, with

information about genres I have little experience in. Though I have learned an

interesting overview of music and names of DJs associated with these genres, very

little inside these chapters does more than simply confirm the over-sexualized,

substance heavy lifestyles that are the derogatory and negative stereotypes

attached to DJs of all genres across the world.

Sophy Smith has an interesting look into group turntable composition, commonly

know as 'team' composition, analysing routines composed specifically for the UK

DMC Team battle[21] by The DMU Crew[22], The Mixologists[23] and The Scratch

Perverts[24]. She breaks down the elements of the turntable composition into

technique, timbre, type of turntablism (beatjuggling or skratching) and analyses

the turntable *routines* of the three technically different teams for similarities and

differences. Smith's approach is very matter of fact and looks at the

compositional process in terms of balance of time each performer spends on each

structural section, always ranking the performers in order of importance, further

breaking down her analysis into elements of generalised timbre/genre into what

might be a conclusive 'winning' formula for team composition. Smith explains

that it was imperative to work with three teams within her geographical grasp so

that she was able to meet with them, analyse their compositional process first

hand, to interview them first and see the work performed first hand in a team

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[20] A 'quick mix' is a DJ mix where tracks are played for short bursts, sometimes
only a handful of beats before another track is mixed in.
[21] Smith, S. 2013. *Hip-Hop Turntablism, Creativity and Collaboration.* London:
Ashgate. p11
[22] Ibid. p143
[23] Redbull Music Academy. 2006. *RBMA Lectures : Mixologists* [Online] [Accessed
1 October 2016] Available from: http://www.redbullthre3style.com
[24] Smith, S. 2013. *Hip-Hop Turntablism, Creativity and Collaboration.* London:
Ashgate. p57

16

battle / DJ competition scenario. I agree, that all of the elements are vitally

important, however I think that there are large areas of team battling that are

missed out of Smith's research. The DMC Championships are viewed within the

turntablist scene as the 'less technical' of battles, with the International

Turntablist Federation[25], the Gong Battle[26] and Red Bull THR3E Style

Competitions[27] rating much higher on technicalities, explicitly announcing their

judge's results which are based on technical prowess alone. Nepotism and

conflicting interests often influence the DMC battles, particularly when judges are

in the same teams or close friends of DJs. Part of the camaraderie of the DJ

battling scene involves the heckling, in life and online, of the judges opinions, the

performers and the competition organisers. As a result of this, the competitions

have been forced to make score sheets more accessible to audiences with some

making their competitions more difficult to get to enter. For example, the

International Turntablist Federation (ITF) is by invitation only. Of all the DJ

teams in the world, Smith has chosen to analyse just three and she has only

touched the surface.

Smith spends a large proportion of her book setting up a well researched

turntablist composition history, with analysis of texts by Poschardt[28], Schloss[29]

and Katz[30] but doesn't use of any of this research to back up or analyse her own

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[25] IDA. 2000. *IDA* [Online] [Accessed 1 October 2016] Available from:
http://www.idaworld.org/about

[26] GONG BATTLE. 2005. *GONG BATTLE.* [Online] [Accessed 1 October 2016]
Available from: http://www.allmusic.com

[27] Redbull Music Academy. 2006. *RBMA* [Online] [Accessed 1 October 2016]
Available from: http://www.redbullthre3style.com

[28] Poschardt, U. 1998. *DJ Culture.* London: Quartet Books

[29] Scholss, J.G. 2004. *Making Beats: The Art of Sample-Based Hip-Hop*. Connecticut:
Wesleyan University Press.

[30] Katz, M. 2005. *Capturing Sound.* California: University of California Press, 2005.

17

research as detailed music theory or composition research. Smith has analysed models of form and structure in music and drawn up charts for analysis of form but this is of little use for composition research and lacking the detail that I had hoped to find in this level of publication. This text, which in its introduction tells readers it will develop 'an analytical methodology specifically for turntable music'[31] goes on to completely dismiss the more complex transcription and notation of DJ Radar's concerto as he has 'a disregard for the compositional practices used by the majority of turntablist musicians.'[32] Radar is not an average turntablist, he pushes boundaries by composing new music and notates the music not just to create something new, but to also preserve turntable composition in a way that is accessible to other musicians. Innovation is one vital part of the turntablist ethos that is forgotten in her argument.

Smith does provide a small figure of the main functions of hip-hop turntable notation[33]; communication, documentation, composition, legitimization, analysis/understanding and pedagogy/learning. However useful this chart is for basic analysis, its isn't critical and lacks the musical breakdown of specific skratch techniques and basic rhythmic analysis, which I had hoped it would have included.

Bearing in mind that this is one of the first works on the subject of turntable composition, I can only imagine Smith will go on to further research and I hope there will be analysis of team battles from the critical development of turntablism

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[31] Smith, S. 2013. *Hip-Hop Turntablism, Creativity and Collaboration*. London: Ashgate. p2
[32] Ibid. p94
[33] Ibid. p95

over the last twenty years including the work of Beat Junkies[34], The Invisibl

Skratch Piklz[35], C2C[36] and more from around Europe. British turntablism has a

strong chapter in turntablist and DJing history but the majority of development in

music technique and equipment has been from the USA. Further analysis into the

development of team composition is vital and it is now becoming an even more

interesting area where digital vinyl systems and drum machines are now used as

part of DJ battling, reflecting the development of new DJ technology.

Mark Katz provides a colourful and detailed history of turntablism and DJ culture

from the birth of hip hop with anecdotal snapshot through to first hand

interviews by a wide range of DJs. His research and writing is comprehensive on

the historical and developmental stages of turntablism, with a heavy focus on the

North and South American contributions. The largest chapter of the book

explores the relevance and compositional importance of the development of the

'break' in hip hop and clearly illustrates the importance of this intertwined

development of turntablism and breakdancing.

> The demands of the b-boys and b-girls encouraged the isolation of
> the breaks, and the hip-hop DJs did something that virtually no disco
> DJ would do, at least on purpose: they scratched records[37]

This is a long chapter but I agree with Katz that the development of the *break* and

its importance in hip hop is significant and deserves this much focus. His

historical research is thorough throughout all the chapter topics but I am again

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[34] Beat Junkies. 1996. *Beat Junkies Website.* [Online] [Accessed 1 October 2016]
Available from: https://www.beatjunkies.com
[35] Invisibl Skratch Piklz. 1996. *Invisbl Skratch Piklz Wikipedia* [Online] [Accessed 1
October 2016] Available from: https://en.wikipedia.org
[36] C2C. 2009. *C2C Website.* [Online] [Accessed 1 October 2016] Available from:
http://www.c2cmusic.fr
[37]Katz, M. 2012. *Groove Music. The Art and Culture of the Hip-Hop DJ*. Oxford:
Oxford University Press. p10

conscious that Katz is not a DJ himself, missing out some of the exciting, and

critical details of the development in skratch techniques. There is an exploration

into the development of turntablist albums, namely Q-Bert's *Wave Twisters*[38], Kid

Koala's *Carpal Tunnel Syndrome*[39] and D-Styles' *Phantazmagorea*[40] with only a

brief analysis of sound materials used in the albums, discussing compositional

process

> *Qbert takes something simple-the syllable 'fresh' for example-and*
> *creates a complex musical world out of it. Kid Koala, on the other*
> *hand, takes bits of completely unrelated records and stitches them into*
> *nearly seamless, deceptively simple songs*[41]

It is at this point that I would like to learn more about the use of skratches that

both DJs use, how both DJs differ in their approach to working with samples and

further analysis into the layering of several turntables at a time, as part of the

composition. Like Smith, Katz is referring to compositional form and structure

and missing the intricate details that are the signifiers that differentiate DJs all

around the world. Q-Bert and Kid Koala could perform the same skratches with

identical source materials and equipment but their turntablist characters and

sounds are so unique that you could tell the DJs apart from just simple skratching.

Both Katz and Smith have skirted around the topics of turntable composition,

providing writing about the composition of DJ Radar's Turntable Concerto

process[42] which is taken straight out of the released LP's liner notes, but never

articulate or analyse the musical details of works, missing any constructive

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[38] *Wave Twisters.* 2001. [DVD] Q-Bert. USA: ThudRumble
[39] Kid Koala. 2000. *Carpal Tunnel Syndrome*. [Vinyl] London: Ninja Tune.
[40] D-Styles. 2009. *Phantazmagorea*. [CD] California: Beat Junkie Sound.
[41] Katz, M. 2012. *Groove Music. The Art and Culture of the Hip-Hop DJ*. Oxford:
Oxford University Press. p573
[42] Ibid. p614

criticism of the turntablism or music composition. Katz' chapter on turntable composition provides ample evidence that music has been composed to legitimise the turntable as an instrument with further elaboration on the composition and rehearsal room processes. He acknowledges a number of composers and DJs in the UK[43], including myself, but references there are only a few scores or recordings available without providing any evidence of this. Has Katz listened to these works and is his writing well informed on this subject?

Of the books that are available on DJing, most fall into the categories of tutorials/manual and hip hop history. As there are now several books on these subjects, I hope that there will be more literature written on the development of turntablist skills alongside the progression of DJ equipment and turntable composition. Katz has illustrated the development of the two channel DJ mixer through development of skratch technique by Grandmaster Flash

> *Flash took the same methodical approach to his DJing as he did to his*
>
> *equipment. His goal was to find a way to connect the break without*
>
> *ever losing the beat..[44]*

In the future, I hope we can learn more about the development of turntable equipment and turntable composition twenty years on, for example, writing about and with the ultra pitch and midi Vestax Controller One turntable[45] (which I use

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[43] Ibid. p614
[44] Ibid. p615
[45] VESTAX. 2001. *VESTAX* [Online] [Accessed 1 October 2016] Available from: https://en.wikipedia.org/wiki/Vestax

in my compositions) and DJ mixers with integrated midi controls and effects, like

the Rane TTM57.[46]

Chapter 3 Methodology

There is a clear 6-step process to my compositional methodology.

1. Proposing/receiving a commission

2. Research into a new commission and ensemble

3. The composition process in view of research

4. Skills sharing with ensemble

5. Performance

6. Compositional evaluation and reflection

3.1 Proposing/Receiving a Commission

The first step is a commission from which I begin to draw a list of criteria and a

step by step plan to fulfil the artistic and pragmatic elements of the commission.

This is clearly demonstrated in the NOISESTRA[47] project where, in the first

instance, I was to work intensively with an ensemble that did not yet exist[48]. To

fulfil the performance and compositional aspects of the commission, I had to

recruit a minimum of 8 young people from the North East of England and draw up

a learning strategy and rehearsal schedule that would be practical and realistic in

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[46] RANE. 1998. *RANE* [Online] [Accessed 1 October 2016] Available from:
http://dj.rane.com/products

[47] Rezaei, M. 2012. *NOISESTRA: From the DJS of NOISESTRA.* [Online]. [Accessed 1st
October 2016]. Available from:
https://www.youtube.com/watch?v=JIQGHbnXmi4

terms of community music practice and working with young people. The

commission outlined that the performance was to be over 30 minutes in length, to

work with the young people closely to demonstrate their skills as performers and

to share skills. The process by which this commission was developed involved a

commissioning panel that wrote a specific list of criteria. The criteria was based

on a set of initial ideas that I presented as part of the commissioning process; to

compose and use graphic scores, DJ workshops to share skills with a young

generation to help preserve turntablism and exploring experimental music

performance skills for a set performance with an established music ensemble.

Leading up to the performance would include a set of intensive workshops

exploring the experimental and 'traditional' hip hop settings of turntablism

through the skills of *beat matching*, *mixing*, *skratching*, *beatjuggling*, *turntable

tones* and free improvisation. This presented an opportunity to share skills and

work with both new and old turntablist skills.

3.2 Research into a New Commission and Ensemble

Research into the new commission is carried out both in terms of music and also

the performers/performance. In many cases, this will involve workshops and

experimentation with the ensemble. For NOISESTRA this took the form of a

teaching process with the performers, including mini-presentations, experiments

and graphic scores using turntables, for example, a workshop on February 1st

2012 focusing on *turntable tones* and the *forward cut* skratch. Most turntable

techniques are transferable skills, for example the forward cut is a method of

sampling part of a forward playing sound, without the reverse sound heard, to a

23

specific tempo (often in 4/4). The forward cut is also the technique from which

the basic beatjuggling technique *backspinning* is derived. The forward cut is a

skill that can also be further applied to turntable tones, where a small tune can be

played by 'looping up' or rewinding sounds whilst the pitch adjuster on the

turntable is adjusted. Using the forward cut skratch as part of the process for the

turntable tones is an early, highly skilled and coordinated technique which I

challenged the group with. Once the group learned to play 'Mary Had A Little

Lamb' on the turntable following the example of the 1991 DMC World Champion

DJ Qbert[49], we then looked at a graphic score and discussed how we could begin

to follow one basic rule to make sound and have impact. This repertoire included

text and graphic scores such as Matthew Shlomowitz's *Letter Pieces*[50], Jennifer

Walshe's *Why People OD on Pills/ Jump off the Golden Gate Bridge*[51], Stockhausen's

Helicopter String Quartet,[52] John Cage's *Rocks*[53] and Cornelius Cardew's *Treatise*[54]

which we experimented with on turntables.

This hands-on approach to teaching with young people identified various skills

involved that are needed to communicate in workshops about group performing,

improvisation and interpreting graphic scores.

Another part of the research has included cataloguing other turntable

compositions and articles for my own research whilst looking at the role of the

turntable as an instrument within composed music. Looking at John Cage's

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[49] *1991 DMC World Championships.* 1991. [VHS] London: DMC.
[50] Shlomowitz, M. 2007. *Letter Piece #1: Northern Cities, Arsenal, Bahrain, Chihuahua, Darjeeling & Eisenhower.* [Music Score] Unpublished.
[51] Walshe, J. 2004. *THIS IS WHY PEOPLE OD ON PILLS/AND JUMP FROM THE GOLDEN GATE BRIDGE.* [Music Score] New York: Milker Corporation.
[52] *Helikopter-Streichquartett.: Arditti String Quartet.* 1999. [DVD] Paris: Medici Arts
[53] Cage, J. 1986. *A Collection of Rocks.* [Music Score] London: Edition Peters.
[54] Cardew, C. 1970. *Treatise.* [Music Score] London: Edition Peters.

Imaginary Landscape No. 1, employed needle dropping and test tones with pitch adjustments, *Imaginary Landscape No. 5* with forty two different records used and Schaeffer's Etude *Aux Chemins de Fer*[55] sampling records, making 'silon fermé' (closed grooves) [56] on records. The repertoire contemporary with the rise of hip Hop, J. O. Mallander with *Decompositions* with its minimalist repetition[57] and John Zorn's *Locus Solus*[58] featuring Christian Marclay on turntables was also very useful. Recent works were also studied including Gabriel Prokofiev's *Turntable Concerto*[59], where a live orchestra juxtaposes with a live turntablist and DJ Qbert's 'Wave Twisters'[60], a complete hip Hop turntablist work with a through composed narrative of characters, musical themes and radical turntablist techniques. I played and shared numerous turntable works with the group throughout our workshops and have researched the purpose, role and identity of the turntable throughout these works, using this research to inform my compositional decisions.

Research into new work is also through regular listening to music and attendance at music concerts, theatre and dance shows. Often new ideas are presented and I learn about instrumental technique, ensemble timbres, compositional form and how best to communicate/notate for performers from concerts.

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[55] Schaeffer, P. 2013. *1948. Etude Aux Chemins De Fer*. [CD] London: Puzzle Records
[56] Emmerson, S. 2007. *Living Electronic Music*. London: Ashgate. p67
[57] Mallander, J.O. 1983. *Decompositions.* [CD] Helsinki: Anoema Recordings.
[58] Zorn, J. 1983. *Locus Solus.* [CD] London: Tzadik Records.
[59] BBC. 2011. *Concerto for Turntables.* [Online]. [Accessed 1st October 2016.] Available from: https://www.youtube.com/watch?v=38atRejUORM
[60] *Wave Twisters.* 2001. [DVD] Q-Bert. USA: Thud Rumble.

3.3 The Composition Process in View of Research

The third step of the methodology is the process of writing the composition.

When composing for turntables, I am most often composing with a specific

ensemble, sound or technique in mind that I have been experimenting with,

usually through turntable improvisation. For example, in NOISESTRA's *FUMP*, I

intentionally wanted to compose a graphic score with a direct pitch correlation to

the turntables as an ensemble and specifically, exploiting the limitation of using

only +8% and -8% pitch on 13 turntables.   Multiple turntables can change pitch

through small controlled movements of the turntable's pitch adjuster and the

unpredictable, erratic and unique sounds produced by moving the records on the

turntables by hand. This effect was then multiplied by 13 turntables and layered

with timed solo entries and points of unison. When composing *NOST*, I was

interested in employing sub bass oscillator sounds in close proximity and how the

rhythmic patterns of the oscillators clashing can have a physical and sonic effect

with new added dimension of clicking on vinyl. I wanted to explore the depths

and closeness of the limited sound material through bass tones, especially when

in close proximity and when far apart. This meant that I had to use different

equipment: a Technics 1200 turntable[61] with an overall pitch range of 16%, and

the Vestax Controller One turntable[62] with a 120% ultra pitch range with two sub

woofers in the performance.

One issue that constantly arises in my performance practice is the balance of

electronics and acoustic instruments. What solution works best when trying to

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[61] Technics *SL-1200 MK2 Turntable.* [Online] [Accessed 1 October 2016] Available from: http:// shop.panasonic.com/shop
[62] Vestax *Controller One Turntable* [Online] [Accessed 1 October 2016] Available from: http://cdm.link

balance the sound if one instrument must be amplified? Is it important to amplify the acoustic instruments too? I attended a performance of the Royal Northern Sinfonia performing Steve Reich's *Different Trains* in March 2013 in Hall 2 of the Sage Gateshead. The balance of the acoustic string quartet and the amplified cassette tape worked well in the performance space as an audience member, however the string quartet were wearing ear pieces that played a metronome along with the tape recording. It became apparent that the musicians found it difficult to follow a score that includes a tape recording which is immersive and played a vital role for the performers. Electronic music can be much louder than acoustic instruments would be heard in the context of a shared performance space and some musicians can find it confusing, especially if its distracting the performer from a strict tempo. This is an example of one piece where the pragmatics of a piece aren't as easy as they appear to be, where scoring a work differently (a graphic score, or even lack of detail in a score relevant to other parts for other performers) could possibly make it more difficult for a performer to understand. With NOISESTRA, I worked closely in the performance space with all of the DJs and Apartment House with a sound technician, using a variety of fold back through monitors for DJs and musicians. This issue has been a constant and conscious issue that I have thought about throughout all of my writing.

3.4 Skills Sharing with Ensemble

A large element of this research into composing for turntable has come from daily practice as a performer, composer and teacher. Given that formal teaching is not part of most turntablists' experience and that there are still limited resources for

advanced turntablist skills worldwide, establishing taught skills becomes a critical part of the process of developing work with an ensemble. In order to write for and work with other turntablists, participants had to be trained with a specific skills base. I had an open call for young people to join the NOISESTRA ensemble and as a result, there was a huge variation in abilities and understanding of music though no one participant had used vinyl to DJ with or learned any turntablist specific skills. With this in mind, it was important to devise a series of workshops that crossed over various skills in turntable performance and DJing including repertoire, basic beat matching, mixing, beat juggling and skratches before developing into turntable tones. I researched several different methods of teaching skratching techniques including DJ Q-bert's online Skratch University[63], the Berklee College of Music Skratch course with Stephen Webber[64], DJ Short-ee's *Studio Scratches* video tutorials[65] and Chris Kwote's online tutorials[66]. Adding to this my own experiences as a DJ instructor, I have developed my own methodology, including elements of youth leadership as shared learning and participant research/homework. Unlike the QSU and Berklee College of Music courses, the NOISESTRA project was not set up as an academic course for musicians to learn, but as an open access project to young people who want to learn DJing and turntable composition with performance opportunities.

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[63] DJ Qbert's Skratch University. 2011. *QSU*. [Online]. [Accessed 1 October 2016]. Available from: http://artistworks.com
[64] Webber, S. 2007. *DJ Skills: The Essential Guide to Mixing and Scratching.* New York: Focal Press.
[65] StudioScratches. 2013. *Studio Scratches.* [Online]. [Accessed 1 October 2016] Available from: https://www.youtube.com/user/studioscratches
[66] Kwote, C. 2013.*Kwote Music*. [Online] {Accessed 1 October 2016] Available from: http://kwotemusic.com

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The NOISESTRA workshops were initially set up with three DJ setups, one for every four participants (a total of six turntables and three DJ mixers for twelve participants). The participants learned in groups of four, helping each other by learning skratching and beatjuggling in duos, swapping positions to learn skills on both left and right hands whilst also working together on smaller turntablist challenges.

Bearing in mind the group needed to perform with live instruments, I developed a short series of skratch exercises[67], written with partly music and partly turntable technique as criteria. Put into practice, these exercises look at basic musicianship, to build group musicianship, basic hand control, crossfader technique and to encourage improvisation and interpretation whilst maintaining accuracy and clarity. Much like the ideology in Bartok's *Mikrokosmos*[68] series of piano technique, the exercises are progressive in technique with a dual purpose of gradually developing technical turntablist skills, introducing new ideas along the way whilst existing as short pieces to perform.

There is a clear development of turntablist technique alongside basic musical skills in the short exercises. By notating the exercises, I have documented them – documentation is an on going issue for turntablists – whilst also providing a teaching tool for participants to work from. I would argue that notating the exercises is important, as there are many various ways in which people learn like Fleming's Visual Auditory Reading and Kinaesthetic (furthermore referred to as

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[67] These exercises are discussed in more detail in the appendices.
[68] Bartok, B. 1926-39. *Mikrokosmos, Volume 6.* [Musical Score] London: Boosey and Hawkes.

VARK) model outlines[69]. By using means of visual aids, auditory aids, reading and writing and applied practice (kinaesthetic), I have been able to successfully teach exercises to participants, all with varying skills. The use of written exercises in teaching also relates to David Kolb's Learning Styles[70] where there is a four stage learning cycle:

Learning is the process whereby knowledge is created through the transformation of experience.[71]

Kolb's theory is in four steps: Step one, Concrete Experience, where a new experience is encountered; Step two, Reflective Observation, of the new experience; Step three, where reflection leads to new ideas; Step four, where the learner applies the changes to find results. Exercise 8 has points where participants are able to reflect on their learning and apply their own interpretation of the score.[72]

 I have learned about and applied this theory to my community practice as a freelance musician in a number of working roles and projects and found this a clear and useful structure to compliment my workshop planning.

3.5 Performance

The next step in my compositional methodology includes my pragmatic approach to composing music. I compose music that will challenge my abilities (even if it

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[69] Fleming, N. 2001. *Teaching and Learning Styles: VARK Strategies Website.* [Online]. [Accessed 1 October 2016] Available from: http://vark-learn.com/
[70] Kolb, D. 1984. *Experiential Learning: Experience as the source of learning and development.* New Jersey: Prentice-Hall.
[71] Ibid.
[72] Please see Appendices for Skratch Exercises.

means not touching the turntable), looking to explore new ways of creating sounds through different techniques and applying several different skills in both turntable ensemble performances and performance for turntable and instrumental ensemble. An example of this is *TRAX* from *NOISESTRA*, where a solo turntablist and solo harpist improvise without reference to any notation and are accompanied by a scored ensemble of turntablists and instrumentalists. Much like Mauricio Kagel's *Primavista*[73], symbols were employed and specific boundaries within which to interpret these symbols. Working with NOISESTRA in workshops, we experimented and developed a specific set of symbols with specific techniques and changes. This was an artistic decision on my part, where I wanted a consistency in sounds produced by the participants. This need for clarity was further reinforced by feedback received from the performers, as they were uncomfortable without a specific set of performance notes to play from. Thus the notation served two purposes, the first artistic, the second, pragmatic and didactic.

Using graphic scores allows room for interpretation as a soloist and as an ensemble, bearing in mind the varying levels of musical ability and understanding in the turntable ensemble compared to that of Apartment House.

In contrast, when writing *Esfa*, I employed notation for all instruments. In part 3 of *Esfa*, borrowing ideas from Alvin Lucier's oscillator drones in *Music For Cello With One Or More Amplified Vases* (1993)[74] and Peter Ablinger's clicking records

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[73] Kagel, M. 1964. *Prima Vista* [Music Score] London: Universal Edition.
[74] Lucier, A. 2005. Music For Cello With One Or More Amplified Vases. Anthony Burr and Charles Curtis. *Alvin Lucier:* [CD] London: Antiopic.

of *Weisslich 13*[75], I used a sampled oscillator track on a warped Serato record to play alongside the sustained sounds of silk ribboned electric fans used on the piano strings and harp. I wanted to use an oscillator sound with as little interaction on the turntable for the textural quality of the warped record and sample. I set myself the challenge as a performer to constrain and withhold manipulation of the turntable when used as an instrument, much like Ottorino Respighi's use of the turntable in *Pini di Roma* (1924) where it is used to play a nightingale's song with no manipulation.

3.6 Compositional evaluation and reflection

The final step in my compositional methodology is evaluation. Looking back on the turntable works I've composed since 2008, there are points of learning, areas to adjust and musical moments that have worked well.   Using Kolb's process of learning, step 4, reflection, *23* from *NOISESTRA* is a difficult work for me to evaluate. Reflecting on the performance was more productive than looking at the score. When rehearsing, I was unhappy and unsure of the work however, there was a deadline and I ultimately had to hand over the score to the performers and rehearse to get the most out of the situation. The focus on moving melodic material through the instrumentation in this work is imitative of sampling and the sample based nature of turntablism. Many practical issues arose from the rehearsal of this piece. These included directing and conducting the turntable ensemble whilst also performing, working with highly skilled performers that

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[75] Ablinger, P. 1995. *Weisslich 13* [Online] [Accessed 1 October 2016] Available from: http://ablinger.mur.at

could not read music, conducting the instrumental ensemble with cue points and the live sound balance of acoustic instruments, amplified acoustic instruments and a turntable ensemble. The fixed nature of the rhythm stylistically is at odds to the harmonic language and textural intentions I initially had. This piece was fully notated using 5 line staves for all instruments and I am unsure whether notating in this format was unsuitable or if the ideas for the piece itself were not strong enough initially.

Chapter 4. Authorship in a Participatory Setting

> *Methods of writing percussion music have as their goal the rhythmic structure of a composition. As soon as these methods are crystallized into one or several widely accepted methods, the means will exist for group improvisation of unwritten but culturally important music.*[76]

A critical part of my compositional process includes the notation of my composition for turntables. Using graphic scores in various formats has advantages and disadvantages in group settings.

I researched various methods of community music practice to adapt for NOISESTRA, primarily using John Stevens' handbook *Search and Reflect*[77]. One example of adapting his exercises included a workshop where NOISESTRA were skratching individually at different times to form a chain of skratches, needed for *Sqrinch Sqratch Orquestra*. This was then contrasted with independent free rhythm skratches used in *TRAX*. One specific exercise I used by Stevens is *Click*

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[76] Cage, J. 1961. *Silence: Lectures and Writings by John Cage* Hanover: University Press of New England/Wesleyan University Press.
[77] Stevens, J. 1985. *Search and Reflect – A Music Workshop Handbook.* London: BP Community Music Ltd.

Piece[78]. The aim of this exercise is to 'produce the shortest, most precise sound

possible.' I adapted exercise one to achieve a similar aim, to produce a distinctive,

articulate and accurate sound' with turntables using specific skratches. Stevens

asks that the group begin in silence and individually, produce the shortest sounds

they can, using several attempts until the perfect sound is produced. I adapted

this so that within the group, the DJs would all do variations of the baby skratch

with their own chosen sound, but looking for their own 'signature' baby skratch

sound so that in a 'collage' of skratches, their own would stand out. This was then

further elaborated, much like Stevens' second exercise, the 'signature' baby

skratches were repeated, each time exactly the same and precisely. This linked

neatly into the third exercise, where physical gesture and placement of the

instruments/sound source is focused on. The final exercise emphasises individual

playing with free rhythm in a group setting. I initially thought this would be of

great difficulty for the group, however, the steps in the exercises meant that

sufficient focus and skill was built by the individual participants that they were

then able to work individually, focusing on themselves, and think independently

of a group dynamic and rhythm. This exercise is also an interesting reflection on

how I have worked with NOISESTRA as a music leader, looking from a

macroscopic perspective of the group performance, allowing the participants to

find their own individual sound and character within boundaries of the pieces.

In the spring of 2012, I was invited to work with an ensemble of improvisers to

perform John Cage's *Improvisation IV*[79] on cassettes for BBC Radio 3 at City Halls,

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[78] Ibid. p63

[79] Cage, J. 1983. *Improvisation IV*. [Music Score] London: Edition Peters.

Glasgow. Part of the concert included a performance of Cage's *Child of Tree*[80] by

Ilan Volkov. This was the first time I had seen a work with live plants and such

extensive use of the I Ching within a complicated text score. This piece is a good

introduction to an in-depth methodology of indeterminacy that will solely

determine the eventual outcome of the work and the score was a topic that a

number of performers discussed informally. Cage hand-wrote the piece, making it

difficult to read in the first instance, then there are difficult rules to follow and

interpret. Very much like Stockhausen's *Plus Minus*[81], the performer must work

out their own role and performance in advance and the score is not always clear.

Some people would argue that a deep understanding of John Cage's works is

essential when interpreting such a score, however I would argue that this should

not be the case. Any composer should be able to clearly communicate to any

performer exactly what they wish to see in a performance without any

background research into the composers and their previous works. Whether they

achieve this or not is a different matter. As a composer, I like to think that I write

pragmatically for performers, and rehearsal times are a good time to ease out any

ambiguities or issues in a work. At this point in my compositional career, I don't

believe in making a process difficult for a performer for the sake of making it

difficult. Did Cage intentionally write difficult instructions or is there an unvoiced

lesson written into the score that a deeper philosophical argument needs to be

learned in a subversive manner? We know that Cage was a profound philosopher

and thinker, challenging other musicians and composers as his lecture *The Future*

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[80] Cage, J. 1975. *Child of Tree* [Music Score] London: Edition Peters.
[81] Stockhausen, K. 1963. *Plus Minus* [Music Score] London: Universal Edition.

of Music (Credo)[82] explicitly demonstrates. Could the score have been written in

another way so that it isn't as difficult to understand? Looking at his later works,

especially the relationship of *Branches*[83] to *Child of Tree*[84], I think that this was

one of many experiments where Cage was developing a narrative and his ideas

were 'not a flash of inspiration, fully formed.'[85] In *Music of Changes*[86], Cage used

the I Ching as part of his composition process and by 1976, in *Branches*, he opens

up his piece to the performers, further developing the use of indeterminacy by

laws of probability, increasing the likelihood of a radically different performance

with every performer and concert. Neatly summarized by Christoph Cox[87] from

John Cage's *Silence: Lectures and Writings*[88], Cage sorted open compositions into

'two general categories… indeterminate with respect to composition, determinate

with respect to its performance and determinate with respect to composition,

indeterminate with respect to performance'. *Branches*, *Child of Tree* and *Music of*

Changes are determinate with respect to composition. Though part of the

performance of *Branches* and *Child of Tree* involves interpretation by the

performer, there needs to be significant detail in the instructions for the

performers to work out their parts thoroughly. The performance will be

indeterminate as the durations and instruments will be open to interpretation

based on the compositional structure and the reliance on the I Ching to define

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[82] Cage, J. 1961. *Silence: Lectures and Writings by John Cage* Hanover: University Press of New England/Wesleyan University Press.
[83] Cage, J. 1976. *Branche*s [Music Score] New York: Edition Peters.
[84] Cage, J. 1975. *Child Of Tree* [Music Score] New York: Edition Peters.
[85] Prendergast, M. 2000. *The Ambient Century.* London: Bloomsbury Publishing. p44
[86] Cage, J. 2951. *Music Of Changes* [Music Score] New York: Edition Peters.
[87] Cox, C and Warner, D. 2004. *Audio Culture: Readings in Modern Music.* London: The Continuum International Publishing Group. p165
[88] Cage, J. 1961. *Silence: Lectures and Writings by John Cage* Hanover: University Press of New England/Wesleyan University Press.

compositional elements. It is credit to Cage that the process itself is complicated

and he has explained the steps in a way that communicates his complex ideas

clearly and I don't think requires a deep grounding in previous works of Cage's.

As the director of the NOISESTRA ensemble and the composer of the graphic

scores, I was able to choose how much control I had over all aspects of the

performers skills base, interpretations and decisions when facilitating group

decisions. I had initial thoughts about how much input and interpretation I would

allow performers to have, though this evolved as the workshops ran and the

demands of each graphic score were refined through my personal evaluation.

NOISESTRA were still relatively new to interpreting graphic scores and this

juxtaposed with Apartment House's experiences. This immediately challenged

me as a composer, as there are certain expectations for and from a professional

improviser.

David Toop talks about 'Seasoned improvisers – musicians who are familiar and

comfortable with an ad-hoc way of working – tend to operate with unspoken,

even unconscious sets of conditions that differ according to the players and the

overall environment. At its most basic the formula is: rule = no rules.'[89]

An expectation of an open mind to work with graphic scores, or working with

another ensemble presents challenges, particularly when an ensemble are

amateurs wishing to be and needing to be directed in performances.

> They are used to variations in quality but at their sophisticated
> level, disasters are unusual. Musicians who prefer to work from
> clearly defined structures but who involve themselves
> periodically in structured performances often express extreme
> reservations about the chaos that can ensue.

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[89] Toop, D. 2004. *Haunted Weather; Music, Silence and Memory*. London: Serpents
Tail. p35

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> In other words, working with inexperienced players risks public humiliation[90]

As an improviser myself, I am aware of the risks you take working with any new ensemble, but the risks are significantly higher when working in a professional context with young people with new and limited group improvisation skills. One way of tackling this apprehension and anxiety was to approach the graphic scores with a set of performance directions that would appease the worries of NOISESTRA performing, define a set framework for Apartment House, and still afford space for individual creativity within a group context.

Authority in group improvisations is important. If someone doesn't take the first step and lead the group, there can be a large group of people waiting for nothing to happen.

> At worst, it can lead to an amorphous mess where no one has the courage to take a lead, so everyone ends up posed on the edge of explosion without consummating the relationship[91]

Having worked and trained in community music practice, I have used Roger Hart's *Ladder of Young People's Participation*[92] consciously in participatory settings and wanted to apply elements of his theory to my planning and work with NOISESTRA. The ladder model has 8 rungs[93]; Rung 1, young people are manipulated; Rung 2, young people are decoration; Rung 3, Young people are tokenized; Rung 4, Young people are assigned and informed; Rung 5, Young people are consulted and informed of final results; Rung 6, adult initiated, shared decisions with young people; Rung 7, Young people lead and initiate action; Rung

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[90] Ibid. p34
[91] Ibid. p32
[92] Hart, R. 1992. *Children's Participation: The Theory and Practice of Involving Young Citizens in Community Development and Environmental Care.* London: Earthscan.
[93] Ibid.

8, Young people and adults share decision making. This model leads me to debate which of these levels of participation is most meaningful in the context of the NOISESTRA ensemble. Hart explains that, ultimately in every situation, a different rung of the ladder is correct, to which I agree and would add that, it is also constantly changing.

FUMP is an example of a graphic score where I specifically designed and modelled the graphics to relate to my desired musical output. In this work, the experimentation lays with the cellist, not the turntable ensemble who are directed throughout. Initial sketches of the graphic score were 2D on paper, similar to that of Cardew's *Treatise*[94]. *Treatise* lacks explicit instruction in interpreting the scores and, instead, suggests that interpreters devise rules for themselves in advance. This ideology juxtaposes with the ideas of *FUMP*, where I was explicit in the exact details of the turntables interpretation following group discussions, which corresponds to rung 4 of Hart's Ladder, where young people are assigned a specific role but informed of why and how they are involved.

The lights shining on the neck of the 'cello were inspired by the contours of light graffiti works by Lichtfaktor and their light painting photos, where coloured lights are used to draw multiple lines and outlines[95], similar to that of strings on a 'cello or a 5-line musical stave.

Influenced by the dark background and light lines of light painting artist Barbara Morgan's *Pure Energy and Neurotic Man*[96], I developed a 3D video score, using

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[94] Cardew, C. 1970. *Treatise.* [Music Score] London: Edition Peters.
[95] Lichtfaktor. 2013. *Lichtfaktor.* [Online]. [Accessed 1 October 2016] Available from: http://www.lichtfaktor.com
[96] Morgan, B. 1940. *Pure Energy and Neurotic Man*. [Gelatin Silver Print]. At New York: MOMA.

39

Corel MotionStudio 3D[97], with lines slowly appearing and evolving into a tree to represent the individual turntables. I noted that all turntables were to use string sounds, however, after initial rehearsals, I later specified that a range of string sounds recorded on C in different octaves were to be used. This decision was pragmatic, to ensure a breadth of range in the pitches, to soften the 'screaming' quality of 12 high-pitched records when manually speeded up and to add an extra dimension in the sound quality of the turntables in the first stages of the score. John Blacking's research in 'How Musical is Man' is a fascinating paper in which part of my belief in participatory and community work lies.

Tests of musical ability are clearly relevant only to the culture whose musical systems are similar to that of the tester[98]

Removing the idea of a 'taught' musician whilst approaching new musical skills through turntablism, everyone in the group has had their own strengths and talents.

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[97] COREL STUDIO. 2010. [Online] [Accessed 1 October 2016] Available from: http://www.corel.com
[98] Blacking, J. 1973. *How Musical Is Man?* Washington: University Of Washington Press. p9

Chapter 5. Works

> *With a phonograph it is now possible to control any one of these sounds and give it rhythms within or beyond the reach of imagination. Given four phonographs we can compose and perform a quartet for explosive motor, wind, heartbeat and landslide.*[99]

The turntable is now accepted as an instrument within popular and contemporary music practices, with thanks to the compositions and writings of John Cage through to Katz and Smith. A large proportion of repertoire for turntable lacks a core grounding in basic skills progressing to intermediate and advanced skills, framing the turntable as a 'gimmick' in most instances. This presented not only just problem but also an opportunity to develop some simple exercises for teaching purposes. Looking back at the history of music tutelage and how the rudiments of music are taught through traditional and academic means, I decided to borrow principals and construct a standard set of exercises and workshops that can be used to formally teach core music skills alongside DJ skills. The skratch exercises can be found in the Appendices.

My development of turntable repertoire also includes research into turntable notation which I have constantly explored throughout my compositional career and processes. My previous research into turntable notation in my undergraduate BA[100] and Masters[101] degree study is also echoed in the works of

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[99] Cage, J. 1961. *Silence: Lectures and Writings by John Cage* Hanover: University Press of New England/Wesleyan University Press.
[100] Rezaei, M. 2006. *Turntable Performance Practice: Development of Techniques and Notation.* BA Thesis, University of Leeds.
[101] Rezaei, M. 2007. *Turntable Composition.* MA Thesis, University of Durham.

Katz[102] and Smith[103]. Both make reference to DJ Radar's *Concerto For Turntable*[104], *The Turntable Transcript Methodology*[105] by John Carluccio, Ethan Imboden and Raymond Pirtle and DJ ATrak's note taking graphic notation[106]. As part of my exploration into notation, I have also asked to see a number of other works for turntables and how they have been written. I have previously worked alongside Gabriel Prokofiev, outside of a turntablist context, and in casual conversation we talked about his Turntable Concerto[107]. Prokofiev has notated his scores with large open and blank sections for the turntables. The rest of the orchestral score is filled with the blank turntable sections left as a part-improvised opportunity for the turntablist in negotiation with Prokofiev. I think that this approach to notation indicates that Prokofiev is happy to accept the full historical tradition of turntablism as an improvisatory practice, that turntable notations are difficult and that one size does not fit all. I further explore the idea that one notational system does not fit all turntable composition throughout my works.

5.1 NOISESTRA

The NOISETRA project – both the name for the ensemble and the work – is a

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[102] Katz, M. 2012. *Groove Music. The Art and Culture of the Hip-Hop DJ*. Oxford: Oxford University Press.

[103] Smith, S. 2013. *Hip-Hop Turntablism, Creativity and Collaboration*. London: Ashgate.

[104] DJ Radar. 2000. *Antimatter.* [Vinyl] California: OM Records.

[105] Carluccio, J. Imboden, E. Pirtle, R. 2000. *The Turntablist Transcription Methodology website* [Online] [Accessed 1 October 2016] Available from: www.battlesounds.com

[106] *Turntable TV Volume 6: Reverse Oyster Beard*. 1998. [Film] Qbert. dir. USA. Thud Rumble.

[107] BBC. 2011. *Concerto for Turntables.* [Online]. [Accessed 1st October 2016.] Available from: https://www.youtube.com/watch?v=38atRejUORM

community music ensemble and a composition project with a unique, experimental and bespoke working style, bringing together a community turntablist ensemble with a professional contemporary new music ensemble. Working with the young people in the group, the work *NOISESTRA* evolved over a large number of weekly workshops. Using youth leadership skills and developing new skills with the young people in the group, the ensemble developed performance ideas from vinyl recordings, pen and paper drawings and open discussions about musical timbres. I worked closely with the turntable ensemble discussing the composition ideas I had for the works and how I wanted to use the turntable in different ways as an ensemble.

Over the initial nine months of workshops, the turntable ensemble learned a combination of basic DJ mixing skills, basic beatjuggling and basic skratches including *baby, laser, rub, patting, forward and reverse cut, flare* and *chirps*. Alongside this, the ensemble experimented performing text/graphic scores, including scores such as Cage *A Collection of Rocks*[108], Walshe *This is Why People OD on Pills*[109] *and Jump Off the Golden Gate Bridge...,*, Shlomowitz's *Letter Piece #1*[110], Stockhausen's *Helicopter String Quartet*[111], Cardew's *Treatise*[112] and Cage's *Improvisations IV*[113]. I decided to run the workshop process over a longer period for practical learning reasons. Derek Bailey discussed the merits of long term,

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[108] Cage, J. 1986. *A Collection of Rocks.* [Music Score] London: Edition Peters.
[109] Walshe, J. 2004. *THIS IS WHY PEOPLE OD ON PILLS/AND JUMP FROM THE GOLDEN GATE BRIDGE.* [Music Score] New York: Milker Corporation.
[110] Shlomowitz, M. 2007. *Letter Piece #1: Northern Cities, Arsenal, Bahrain, Chihuahua, Darjeeling & Eisenhower.* [Music Score] Unpublished.
[111] *Helikopter-Streichquartett.: Arditti String Quartet.* 1999. [DVD] Paris: Medici Arts
[112] Cardew, C. 1970. *Treatise.* [Music Score] London: Edition Peters.
[113] Cage, J. 1983. *Improvisation IV*. [Music Score] London: Edition Peters.

practical work with a teacher as this develops musical understanding through

trial and error and how this is exemplified in Indian music.

> Appreciating and understanding how improvisation works is
> achieved through the failures and successes involved in
> attempting to do it. Indian music with its long complex
> relationship between teacher and pupil has the only
> methodology or system which acknowledges these basic
> characteristics of improvisations.[114]

I agree with Bailey on this practice and chose to adapt the 'traditional' methods of

how turntablism has been taught. I learned my turntablist skills through video

tutorials, deciphering cassette tape recordings and the occasional magazine

interview affording an accurate description of a skratch. Through these

inaccurate and abstracted processes, most DJs will interpret techniques

incorrectly, though this error has been known to spark a brilliant creative

process, creating new skratch combinations and patterns. These methods of

sharing are a clear reflection of the era and the demographic of people involved;

turntablism was a little-known hobby with a small group of interested people

spread out globally, predominantly throughout the 1990s. It is now more

common for turntablism to be taught, with many colleges, music classes and

academic courses now existing. Whether this new formalised academic method of

teaching is still correctly informing participants is still up for debate.

Working with young people is challenging in a number of respects. I knew before

the project started that it would be challenging to keep everyone up to date and

on top of all the group decisions as attendance is always a challenge. To overcome

this I used a private Facebook group, YouTube (videoing of group

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[114] Bailey, D. 1975. *Improvisation: Its Nature and Practice in Music.* London:
DaCapo Press. p8

rehearsals/ideas/progress) and emails to keep in contact with the whole group.

By documenting evidence of work, participants regularly updated, allowed time

for reflection and evaluation whilst giving young people the opportunity to take a

step back and listen to the music created[115].

The full debut performance of NOISESTRA included two full days of rehearsals

with Apartment House, a demanding schedule of any professional let alone young

people. The touring performance of the NOISESTRA project settled at Edinburgh

Napier University in January 2013. Working with a different ensemble informed

my understanding of how the graphic scores work with a different set of

musicians. Working for two days in Edinburgh with the help of Dr John Hails,

NOISESTRA workshopped the self-titled work with an ensemble of student

musicians, another interesting community music setting where the group were

sharing more skills and exploring the challenges of a new musical ensemble to

work with.

The success of two long days with NOISESTRA (12 and 14 hours respectively)

shows the dedication and pride the group took in the success of NOISESTRA as a

project. I am still in regular contact with the individuals from the group in a

professional capacity and the group, like myself, would like to continue and work

together on different musical projects as NOISESTRA. For me, this is the real

success of NOISESTRA.

The work *NOISESTRA* is in 6 parts. For each work I experimented with different

ways of visualising the scores for the turntable ensemble, of whom only 3 out of

12 were musicians, the instrumental ensemble, of which two could not read

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[115] Rezaei, M. 2012. *NOISESTRA Rehearsals* [Online] [Accessed 1 October 2016]
Available from https://www.youtube.com/watch?v=bXrc4NAnnkE

music.

5.2 NOISESTRA: TRAX

In March 2011, I attended a concert by experimental harpist Rhodri Davies, at the
Morden Tower in Newcastle. Davies was performing his newest album at the
time, *Wound Response*[116], ahead of its official release, for around 6 hours with
short, intermittent breaks. This was the first time I'd seen Davies move away
from improvising with auxiliary objects on the electric and acoustic harp and
could see his compositional process up close on the lap harp. There are strong
elements of minimalism with repetition of motifs and variations on themes. The
harp sounds very much like an electric guitar through amps but has a unique
timbre where you can hear the strings are plucked by fingers with articulation
and dynamics akin to the traditional harp. Seeing Davies perform and compose in
this manner made me think of how best to work with him when it came to
working with NOISESTRA on *TRAX*. For *TRAX*, I wanted Davies to work with the
electric harp, however I didn't want him to perform the score, I wanted the two of
us to challenge each other as an improvising duo and see how this would work
parallel to the composed graphic score of the turntable ensemble and the
instrumental ensemble.

> *The present method of writing music, principally those which
> employ the harmony and its reference to particular steps in the
> field of sound, will be inadequate for the composer, who will be
> faced with the entire field of sound*[117]

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[116] Davies, R. 2014. *Wound Response* [Vinyl] Newcastle: Alt Vinyl.
[117] Cage, J. 1961. *Silence: Lectures and Writings by John Cage* Hanover: University
Press of New England/Wesleyan University Press.

For solo Controller One Turntable, solo Amplified Harp, NOISESTRA and

Apartment House. This graphic score mixed together the turntable ensemble and

instrumental ensemble then split them into two equally mixed groups.

An 'anti-concerto' of sorts, the two soloists, Controller One turntable and

Amplified Harp, play throughout the whole work, starting and ending the work.

The mixed and divided ensemble groups were assigned either the top or bottom

slide. Four different colours used in the slides of the score denote a change

between four chosen gestures for each individual performer.

Knowingly composing this work with a specific graphic notation in mind, I

adapted workshops and introduced ideas much like Derek Bailey talks about.

> Simple statements, some ideas, on which we can work to
> provoke them. This was (sic.) free improv, then we looked at
> semi-improvised music from graphic scores.[118]

By working with this method, the group were comfortable working together to

assign gestures to symbols that were translated in to similar gestures for

instruments.

There are general instructions for interpreting the score, for example, a line

represents sustained pitches.   A straight line represents a single sustained

pitch. A curved line represents a sustained pitch that glissandos/changes.

Each performer is able to choose which direction to read the score; therefore the

pitch range is interpreted individually by each performer.

NOISESTRA worked together as a group and agreed on interpretations of the

symbols. Most of the specific interpretations focus on pitch and rhythm. An

example of this utilises the buttons of the turntable, changing between 33 1/3

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[118] Bailey, D. 1975. *Improvisation: Its Nature and Practice in Music.* London:
DaCapo Press. p123

rpm and 45rpm when lines of dotted squares appear in the score. Another

example of this is an exaggerated downwards glissando of 45rpm, +8% down to -

8%, then 33rpm +8% down to -8%, followed by the power switched off

represented by a rhombus shape. As the turntables are powered by

electromagnets, the slow down speed of the turntables is unique every time the

turntables are switched off.

Taking influence from Kagel's *Prima Vista*[119] score, I wanted the performers to

react to whatever appeared on the screen, working out what the symbols meant,

performing them and suddenly stopping when the screen changed. I allowed the

performers to join in whenever they chose however I found that all performers

played almost immediately, as soon as there was a slide for their group to

perform.

I researched Cage's *But What About The Noise of Crumpling Paper…*[120] where

systems of symbols are used as a graphic score. This visual aesthetics of this

score contrasts clearly to *Child of Tree*,[121] where a simple key to gestures and the

rules for those gestures are explicit and the performance is determinate. Within

the gestures, there is room for interpretation by the performers but there will

always be striking similarities in each performance. For me, this is a great

example of how simplicity in graphics and clear instructions score work well for

performers of all calibres and genres. Cage is giving the individuals boundaries

within which they have freedom to choose their own idea and to form their own

[119] Kagel, M. 1964. *Prima Vista*. [Music Score] London: Universal Edition.
[120] Cage, J. 1986. *But what about the noise of crumpling paper which he used to do in order to paint the series of "papiers froisses" or tearing up paper to make "papiers dechires?" Arp was stimulated by water (sea, lake, and flowing waters like rivers), forests.* [Music Score] London, Edition Peters.
[121] Cage, J. 1975. *Child Of Tree*. [Music Score] New York: Edition Peters.

identity. Part of my work with symbols and relating this to turntable gestures was explored in workshops with NOISESTRA. There was a primary concern that gestures and using symbols might make the performance difficult, however, after a few rehearsals with only a handful of gestures to remember, NOISESTRA were fluent and capable of working with the graphic score. Instead of changing medium like Cage does (for example, between striking metal and a water based gesture), we decide to switch between sounds sources and using crossfader/faderless skratches.

The shapes in the scores are based on elements from the environment around Newcastle and Gateshead central buildings and landmarks, much like the work of Villa-Lobos in *New York Skyline*[122]. I asked the young people in the ensemble to bring in pictures of the North East. Using Adobe Photoshop to manipulate the photos, highlighting shapes, textures and colours of interest, we chose 20 shapes and used them in a workshop with Rhodri Davies, improvising using predominantly rhythm, pitch and changing gestures with NOISESTRA. From the resulting workshops, I picked the shapes/symbols I thought were of most interest and contrast from their sonic interpretations ready for rehearsals with Apartment House.

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[122] Villa-Lobos, H. 1957. *New York Skyline: pour piano solo.* [Music Score] Paris: Editions Max Eschig.
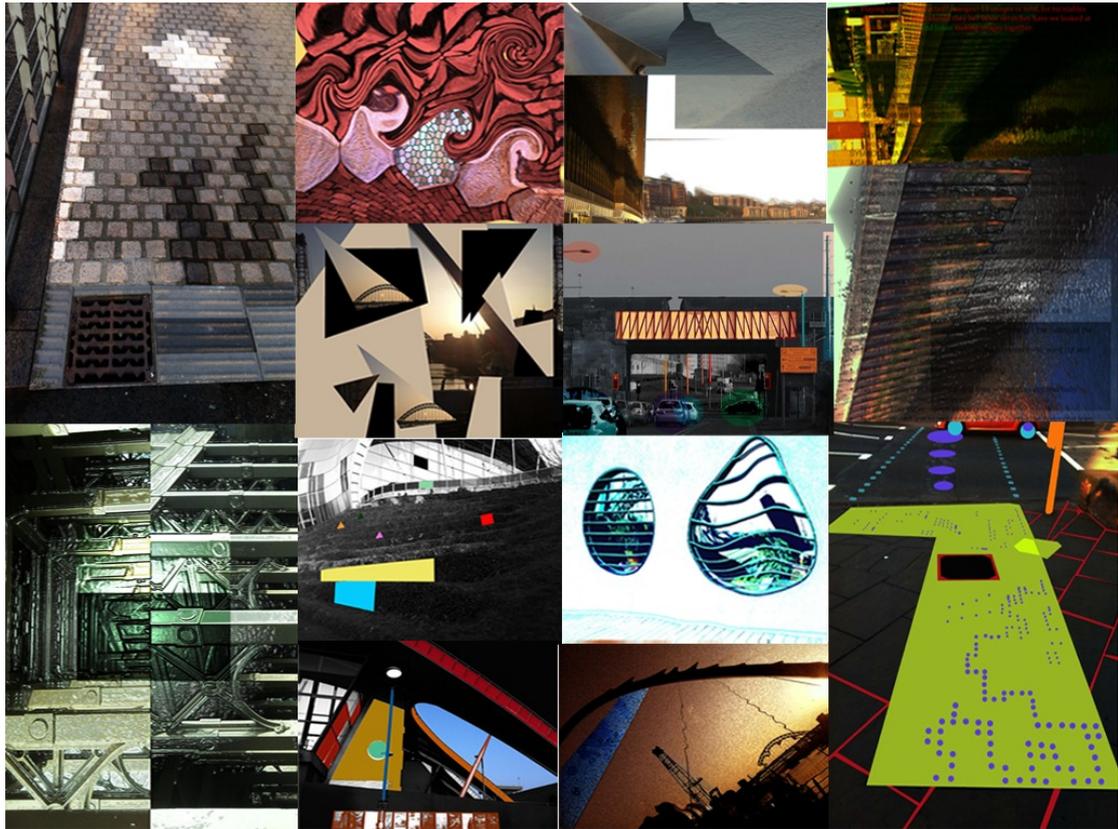
Example of NOISESTRA's contributions to research and TRAX graphic score.
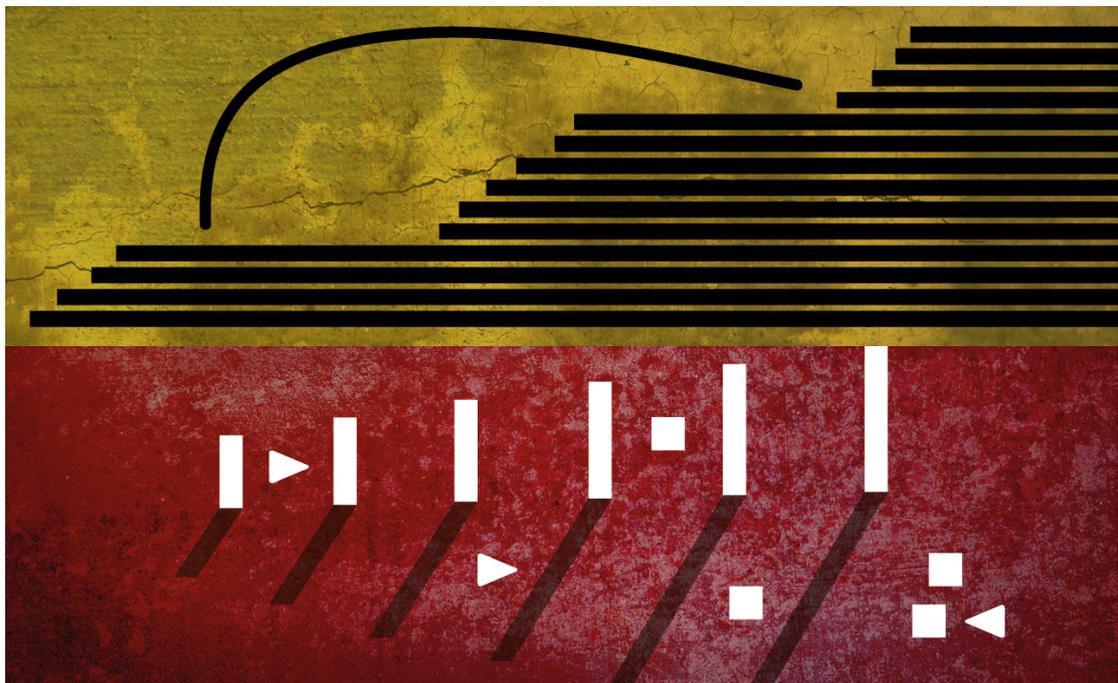
Example of TRAX graphic score.

5.3 NOISESTRA: NOISEstra

Influenced by the local noise scene and the ensemble Tape That and their tape

catalogue performances, *NOISEstra* is a blunt contrast of two video works that serve as a score to the turntable and instrumental ensemble. Building a wall of sound with various records collected from all over the world, the turntable ensemble start with one record that is manipulated, trying to make the musical content unrecognisable. Using borrowed music, the turntable ensemble use basic skratching skills on an individual basis to layer up samples and sounds until they are undecipherable. Watching the video on the left hand side of the screen, on cue of a record being removed, the lead turntablist must remove the record on their turntable, pass it to the performer on their left and pick up a record from the performer on their right hand side. This was carefully choreographed so that it formed a chain of sound and was rehearsed for this reason. Intuition is used by the performers to make sure that there aren't any gaps in the sound as the records are passed along the group, a unanimous decision made by the ensemble in interpreting the score. In workshops, we experimented with every DJ following the video score cues to remove the record, and the resulting silence and auxiliary sounds of the logistical changes of records interrupted the performance. The group rehearsed several versions of the chain of sounds and I decided to work with intuition and small partnerships between DJs. This meant that there was now a constant flow of sound that also would build in volume, timbre and change of genre. Interestingly, the genre of records ranged and were consciously ordered by NOISESTRA from Baroque and Classical music, jazz, instructional records, easy listening, pop music and hip hop. The better manufacturing quality of the newer records meant there was a natural rise in the volume of the ensemble alongside the pragmatic rise in volume in playing more records in a

51

chain (a steady increase of 1 to 14 records by the end).

On the right hand side is a video collage made up of TV snow and protest footage from around the world. The instrumental ensemble are to begin performing as soon as the TV snow video changes to protest footage. Throughout the protest footage, images are highlighted. These images indicate a change of musical gesture for the ensemble. The only performance instruction was to change musical gesture. The musical gestures from Apartment House are clear and intrusive on the turntable ensemble at the beginning of the work and by the end, are almost unheard as the turntable ensemble are overpowering. This struggle between the two ensembles is intentional and reflects the frustrations and rebellion of the youth culture today against the institutionalised, aged and historical traditions of government in place today.

5.4 NOISESTRA: FUMP

> *There is rather an inevitable natural complexity in things (i.e. the structure of a tree) and it cannot finally be precisely indicated, controlled or isolated. To insist on determining it totally is to create a dead object*[123]

This work is for solo cello and turntable ensemble, using a range of sampled and looped string ensemble sounds. Using finger lights as part of the performance and part of the music making, this work follows an animated graphic score. Created from a series of 2D sketches, the 3D video graphic score for *FUMP* clearly denotes the construction of a tree from tubes. The slow progression and appearance of lines/tubes through the video is to be interpreted as turntable voices for the ensemble.

FUMP asks the cellist to wear four different coloured lights on their left hand, to

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[123] Wolff, C. 1965. On Form. *Die Reihe.* **7**. p48.

shine on the neck of the instrument. Correlating to the coloured shapes on the

screen, the cellist shines the light on the cello and where the corresponding light

hits first is the starting point for an improvisation. Turning into a cat and mouse

chase along the cello neck, the cellist must keep shining the light on the neck and

following this.

The turntable ensemble are each following individual tubes on the screen, with

individual entries staggered at the beginning. Following workshops and

discussions, the turntable ensemble interpreted the lines as specific skratches

using specific strings sounds to compliment, i.e. not contrast the cellist.

Using predominantly faderless skratches with the importance resting on the

tonality of the turntables, there is a breadth of tonal material generated.

Glissandos and slides using the pitch adjusters on the turntables allow the sounds

to truly glissando through quarter, third and eighth pitches. Contrasting sonically

with the other *NOISESTRA* pieces so far, this work is the most 'instrumental'

based of all on the turntables.

There is a clear interpretation of the pitch of the turntables correlating to the

upwards building of the graphics/tree in the animation. This interpretation

deviates and the turntables take on their own interpretation of their individual

'branches'.

This graphic score is another combination of strict directions with a balance of

interpretation, by both the cello soloist and turntable ensemble. Like the

American composer Christian Wolff describes, to prescribe every element of this

work would take away the intriguing complexity and unexpected sonic events

that occurred. Within certain boundaries, a uniform tree can be drawn but the

53

individual branches and character of the performers can still be recognized. The addition of the solo cello contrasted in timbre, pitch and rhythm against the tree, achieving what I had set out to make. The free flowing of the cello against the differing strands of the turntables was unified through the use of string samples but then juxtaposed with the electronic samples and the live harmonics and acoustics. This setting and combination of multiple turntables is not possible to achieve by one person alone and played to the strengths of the performers and NOISESTRA as an ensemble.
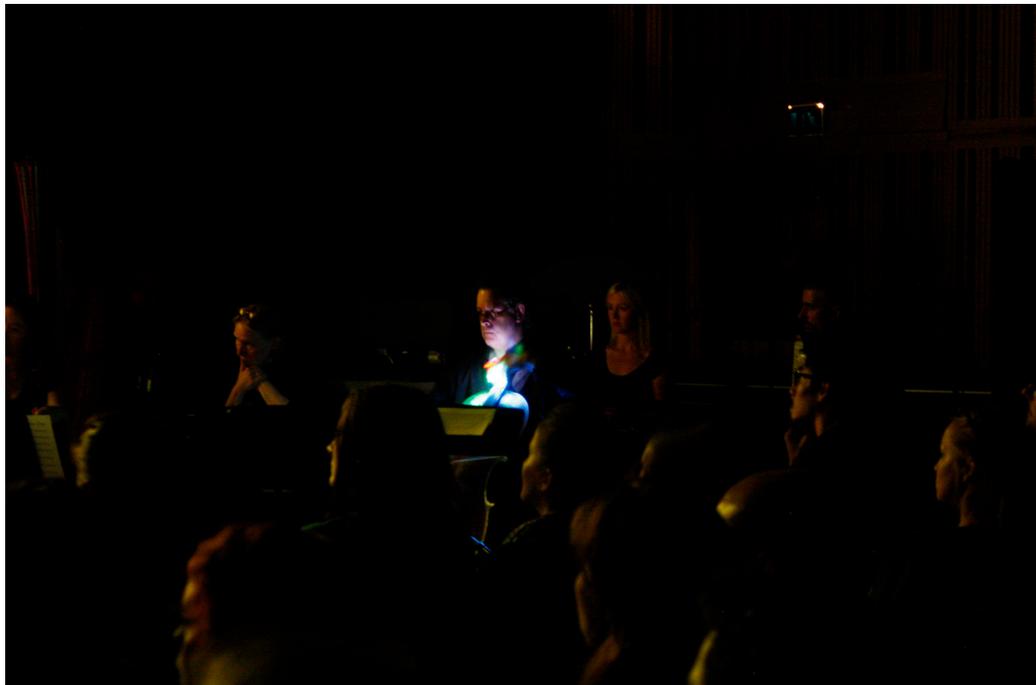
Anton Lukosvieze and NOISESTRA performing FUMP.

5.5 ESFA

Originally a sketch for turntables, harp and double bass, *ESFA* became a commission for harp, piano and double bass. Premiered in 2011 by John Tilbury, Michael Duch and Rhodri Davies, I have rewritten this work with the initial

turntable sketch ideas in mind, returning to the sonic ideas for turntables that I wanted to imitate with piano, harp and double bass.

Taking its name and harmonic identity from dastgah-e Bayat-e Esfahan, *ESFA* works through principles of the dastgah whilst deconstructing elements and reappropriating functions of pitch so that the dastgah is unrecognisably eastern.

Dastgah-e Bayat-e Esfahan
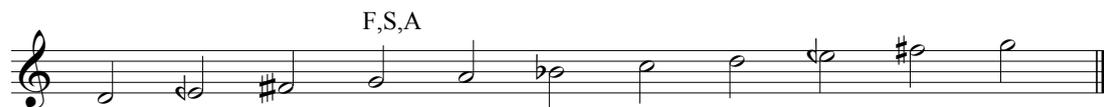
Dastgah are derived from Radif, large collections of musical structures and compositions in Iranian music. There are several main types of dastgah, including that of Dastgah-e Bayat-e Esfahan.

> *Each dastgah is a collection of melodies, having its own tonality*
> *and musical motif that function as its signature to differentiate it*
> *from other dastgah.*[124]

In the dastgah principle, there are three functioning harmonic pivots, the Forud, the Sahed and the Aqaz. In short, the Forud, is the note chosen to be used as a transition or cadence when swapping between dastgahs. The Sahed is the dastgah version of a tonic note and the Aqaz is the tone on improvisation[125]. In Esfahan, this note is the same and I decided deconstruct this principle throughout *ESFA*. Other fundamental elements of the dastgah that I have manipulated include the diatonic nature of the melodic movement, the ensemble and lack of open improvisation in this work, and also to introduce a strong glissando feature throughout the work.

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[124] Nettl, B. 1980. Musical Values and Social Values: Symbols in Iran. *Asian Music, Vol.12, No.1, Symposium, on Art Musics in Muslim Nations.* p132.
[125] Farhat, H. 1990. *The Dastgah Concept in Persian Music*. Cambridge: Cambridge University Press. p76

ESFA is in three short parts and the turntable used in this piece is the Vestax

Controller 1. The turntable uses looped samples, recorded on C at a speed of 33

1/3 rpm at 0% pitch. Using the C major scale on the controller one, I had access to

perform all of the notes I needed plus a small bending control to glissando

between a semitone above and below the notes on the turntable.

As this work is written for a turntable that can play notes, I have scored the

Controller One part as western notation. The pitches are changed using a

combination of the midi buttons and semitone pitch adjuster.

The work is based on 9 chords; borrowing pitch from Dastgah and stretching

rules, it was composed at the piano with the harmonics of the bowed harp, harp

pedalling, double bass and ebow on the piano strings in mind.
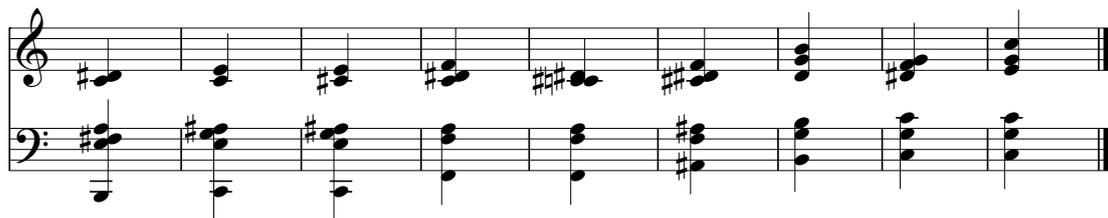
These chords are most recognisable in the piano part, however they are

deconstructed and recycled throughout the different instruments, with greater

emphasis on quarter pitches found in Dastgah-e Bayat-e Esfahan in the Controller

One turntable and Double Bass parts.

Part I

The turntable plays a supporting role to the bowed harped at the beginning of this

work with a bass trombone sample.

There is subtle use of dynamics for the turntable here. The resulting sounds are

prepared include changing pitch on the turntable, looping the record, changing

from button to pitch adjuster control, changing the % of pitch adjuster from 8% to 60% and so on.

In this piece, the upfader of the turntable is being used to control the dynamics. A mixture of skratches and techniques are used on the turntables, including powering down the turntable motor for a sharp glissando effect (e.g. bar 9). A trill effect is made by the trill skratch, tapping fingers lightly on the record surface making a subtle whirring effect.

Bar 34, quiet and subtle transformer skratches perform, mirroring the shoestring fans playing inside the piano. Using a lower pitch sample for this work leaves an open space for the harp and double bass to fill whilst contrasting the delicate fans sounding on the piano strings.

Part II

The turntable performs solo within cells of the trio. Following the nominated leader of the pianist, the turntable performs a solo whilst watching for a subtle indication from the piano to move on to the next section.

The three instruments chase each other in terms of pitch, where pitches are swapped between parts and octaves throughout the development of the cells. There is a clear instruction that the performers are to perform notes within a cell structure then wait to move on to the next cell together as an ensemble.

Using a cello recorded bowing at the bridge, the Controller One plays a recorded sample. The turntable plays independently of this.

With the constraints of playing as an ensemble, waiting to move forward to the next section with the freedom to glissando between pitches and free rhythms within the cell brackets, performing this work raises the question whether or not

there should be any freedom to interpret pitch material or rhythm when there are clear ideas relating to specific timbres.

Part III

The third and final part of *ESFA* has a drone effect, where the Double Bass is the solo instrument.

Mirroring the ebows in the piano and harp, the Controller One turntable plays an oscillator tone used to compliment the delicate timbre.

The double bass solo in this work borrows ideas from the traditional Dastgah, where a narrative is found in the melodic line. Unlike the tradition of dastgah, the double bass part jumps between octaves and has a large range, including harmonics; there are similarities between elements of the melodic shape, including swooping between the tonic to thirds, fourths and sixth.

5.6 NOST

This piece was written with a few main ideas in mind; to improvise on turntables with limited samples, a set theme working with pre-composed sounds with a community choir to develop their skills base, to develop my choral writing in respect to community music, working with untrained musicians and to look at vocal timbre in relation to small body percussion parts. It was written specifically for experimental community choir, NOIZE CHOIR, based at the Star and Shadow Cinema and The Old Police House, with improvising turntables and cassettes/Dictaphones performed by myself and Joe Murray, respectively.

The only description for the sample based instruments, turntables and cassettes improvisations were two words: birds and nostalgia. The two improvisers are

allowed to see and use the score in any way that they like. The choir perform in small groups of two or three around microphones and the choir score is conducted by a choir leader, which proved to be a vital role in the workshop process.

The performance begins with a 30 second silence with the choir and begins with improvisation on turntables and cassettes, all timed with stopwatches. The score is numbered in four sections which are sang in numerical order.

Throughout the work I wanted the choir to replicate sounds of birds in bird song, bird body sounds, as individuals and as a flock, sounds of birds in flight and birds communicating with each other. I looked at works by Messiaen[126] and Tulikki to inform the timbre and vocal palette for vocal improvisation workshops with Noize Choir[127].

Graphic 1, based on the shape and grooves of record, uses circles as a clefless staff with multiple lines. The pitches are approximated in relative proximity to each other, changing through sustained sounds to glissandos, which are reiterated in the improvisation of the turntable and cassettes. I have mixed together glissandos of vowel sounds at various pitches to create sounds that are reminiscent of birds – more specifically owls – hooting and tweeting. Owls do this in groups and the choir imitate this. The vocal parts are free from strict rhythm and are open to interpretation. The conductor controls when the choir starts, stops and moves from one section to another. The score has quiet dynamics at the beginning, with the choir blending in with the samples of oscillators and the distorted live bending of the tapes in the cassettes.

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[126] Messiaen, O. 1944. *Vingt Regards.* [Music Score] London: United Music.
[127] Tulikki, H. 2010. *Away With The Birds.* [Interactive Music Score] [Accessed 1 October 2016] Available from: http://score.awaywiththebirds.co.uk

Graphic 2 sees a change of timbre from sustained sounds in the voices to shorter, varied rhythmical and glottal sounds.

At 0h01'40"in the recording, there is a change of timbre with sub basses introduced by the turntables. The cassettes are sampling the sounds of the choir and turntables. There is a short bird-like discussion by the choir at this point with short pitches sustained and layering over each other, again, reminiscent of hooting.

At 0h02'20", the choir begin exploring the short glissando-ing vowel sounds of graphic two. With staggered entries across the group, the choir builds up and fades out sounds.

At 0h03'15"in the recording, the choir are mid-way through graphic two. There is a combination of clicks, pops, ingressive vocals and whistles from the choir, reminiscent of birds skratching around with their feet, contrasted with two sub basses clashing in the turntables creating a subtle rhythmic pulse. Moving into whistling melodic material transcribed from nightingale song, the choir are performing with staggered entries again and subtly transforms the timbre from whistling to sustained amplified vocal trills and tongue rolls at various but close pitches. Finding a way to combining these vocal sounds was an interesting topic in workshops and staggering the entries phased the sounds subtlety. The extreme contrast in physical mouth shape of whistling to voice trills and tongue rolls was interesting to overcome. I chose these two extremes of sounds, as I often think music using birds and bird songs always borrow the 'prettier' bird sounds and I'm interested in all aspects of the sounds a bird makes. Thinking of pigeons gurgling on the street, flying around from post to post and often walking into people with a crazed sound, I wanted to apply tension and work with a less obvious bird sound.

It is at this point that cassettes play real life bird song. Here is an instance where the choir and instruments have swapped roles momentarily. This is an interesting point to discuss in terms of the relationship between combining notated music and improvisation in the same performance. The cassettes performer was not aware that the choir would be at this point in the score or making these sounds, as this is the first rehearsal of this work he was involved in. Giving a loose direction of bird and nostalgia to turntables and cassettes gave the performers an idea of material to prepare in advance of the rehearsal. It was by chance that the cassettes played this material at this point.

Tongue rolls further develop to include a glissando tone and are interspersed with whistling. The turntables are still focused on playing two sub basses whilst the bird sounds develop. Building tension, a round, repeated 10 times with staggered entries and constantly accelerating, is introduced. What starts as random sounds by individuals quickly forms into a menagerie of birds, hysterical and manic.

At the final crescendoing chord – the turntables break from sub basses and the cassettes return to a bird soundscape. Turntables skratch bird wings sounds swooping.

The choir then act as individuals, singing their own bird songs, combining whistling with basic body percussion of tapping, clicking, mouth popping and hitting the chest. The timbre of the choir changes significantly as the piece fades out, having returned to a version of the pitter patter and random bird song we heard at the beginning of the work.

5.7 Ance

Written for 8 turntables and 8 cassette players, *Ance* is a 20 metre long, paper graphic score of which only two metres were interpreted for a 26-minute performance at TUSK Festival, October 2013. This graphic score doesn't have explicit performance directions, thus relying on performers to use their experience with graphic scores and improvisation in their interpretation. Like Cardew's *Treatise*[128], there are no published performance directions, as I didn't want there to be a direct translation of shapes as symbolic musical gestures, musical instructions or performance directions. The shapes are inspired by mechanical parts found in a Technics SL-1200 turntable, cassettes and records. My interest in the interpretation of this score lies in the physical realisation of the score through multiple instruments in an improvisatory setting where there must be prepared materials ready to manipulate. This is one trait that both turntables and cassette players have that most other instruments don't and is unique to our duo as Wax Magnetic.

Listening back to the Tusk performance of this work, I have analysed the principle elements of music through this particular interpretation of the score.

The first step of interpreting the score was choosing where in the score to focus on, if not, the whole of the score. My performance partner, Joe Murray (a.k.a. Posset) chose a two metre section of the work. I asked him why he chose such a small section and he explained that part of making this decision was the visual aesthetics, the amount of small detail and how the directions of the score changed so much in a smaller area. He particularly liked the circles and thought the contrast of a few circles building up to variations in size, colour, shade, placement

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[128] Cardew, C. 1970. *Treatise.* [Music Score] London: Edition Peters.

on the paper (direction, angle, high, low, etc.) and density was appealing. The

placement on the page immediately reminded me of Morton Feldman's *Projection*

I[129] for solo cello where Feldman 'divides the range of the instrument into high,

middle and low, allowing for various choices of pitch within the ranges

indicated'[130]. This focus on pitch range within the constraints of an instrument's

register – or rather, how pitch changes are produced through electronics – is a

simple and obvious way to interpret the score. Joe decided to perform this

through manipulation of the tape players and also, through use of specific tapes

for particular pitches and material/samples he wanted. This interpretation

worked well as the cassette players are tactile and can be customised so that the

speed of the players can be adjusted instantly.

Joe chose to perform the chosen section of the score from right to left, in contrast

to my interpretation, reading left to right. This meant that we would meet in the

middle with a predicted 'cacophony' of sound. This actually manifested as a

simple rhythmic framework, which was built from 8 oscillators on 8 turntables,

using pitch sliders and upfaders for volume control, with feedback on several

walkmans and a clear change of material on cassettes.

With the 8 turntables, I chose to work with the same small selection of sounds,

taking influence from Alvin Lucier's use of oscillators and spoke with Joe about

mixing up cassette 'skratching' with turntable skratching techniques, namely

needle dropping, trills, patting, scraping the needle, baby skratches and quick

pitch adjustments. This mixing of the cassette and vinyl skratching technique was

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[129] Feldman, M. 1951. *Projections 1* [Music Score] New York: C F Peters
Corporation.
[130] Sutherland, R. 1994. *New Perspectives In Music.* London: Sun Tavern Fields.
p140

certainly achieved (14 minutes) and the constant changing of sounds was sustained for several minutes as a large crescendo across all instruments ensued.

On reflection of our performance, my improviser's instinct tell me that the drones on the turntables and cassettes were not sustained long enough. To really do *Ance* justice as a performance, I think the duration should have been doubled and choral gestures should have been more clearly articulated. I am keen on durational works/performances and wish to pick out small and articulate details within improvisations, an idea I am focusing on in my own improvisational practice.

The one turntable sustained for six minutes at the beginning could have been easily lengthened, however my instinct at the time as an improviser in front of a large crowd was to carry on, move forward quicker and improvise more with the 8 turntables in front of me!

The openness and differing interpretations of the graphic score by myself and Joe and my uncertainty of duration has led me to think about whether I should write any performance directions for another graphic score, similar to this, in the future. It feels as though allowing improvisers to do whatever they like with the score is actually the most powerful and controlling decision of all. I have wilfully handed over all assumptions and all responsibility to the performers, wiping my hands clean of all responsibility for the musical gestures. Nonetheless, I am still intrinsically bound to the music interpreted, as the graphics composed did have a sonic image in mind (as much as I would like to deny this), hence the visual construction of the graphics. Will my subverted musical gestures be correctly interpreted by the performers and performed? Does it really matter what I want?

The juxtaposing reflections of this piece as the composer and then as an improviser of the performance are unnerving. I am erring on the side of caution with the argument inside, as a performer, the openness of the score instinctively leads to me to think that I can and will do whatever I like for the performance, with the instrumentation given.   The use of circles, in my 'improviser' mind, does clearly represent records and tape wheels and every instance of the recurring shape signals a new gesture with a different turntable. As literal as it may seem, this was how both Joe and I chose to interpret the score throughout the performance.

Leaving a score completely open to interpretation is a bold choice, but one that I stand by. I believe in the power of the improviser and their interpretation and I'm willing to accept the open interpretations of the score. I have found that, given the open opportunity to interpret, improvisers surprise me and will perform something in a way I might never have imagine or had initially conceived. I can learn more from improvisers and from my own compositional practice in this instance.

5.8 BAWWWY

BAWWWY is written for one performer with 4 turntables, using two oscillators over two turntable duos, set up with two DJ mixers with adjustable/smoothly graduating upfaders to use as volume controls. It is the most sophisticated of the turntable compositions discussed in this theses and is the result of an interesting compositional period, including research from concerts and composers looked at in the beginning stages of this portfolio.

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Drawing together experience from improvising with multiple turntables, drones and the discipline used as a performer in durational and mixed media performances, the score was initially composed from a practical perspective. The piece relies heavily on the performer knowing and understanding the limitations and capabilities of turntables and oscillators. I composed this piece using oscillators on vinyl, so as to play with and pull on the rhythmic and tonal properties of two contrasting duos of oscillators with a limited +/- 8% pitch range on the turntables. There were added experiments with oscillators played out of sync by looping up samples on vinyl. This chance element is imperative to the work, making it unique to the turntable at the same time as accepting new sonic possibilities uncontrollable by either the performer or the composer. John Butcher writes about this as part of free improvisatory practice,

> The physicality of sound production is inescapably connected
> with the creation, not just the execution, of the music.[131]

This is one of the most exciting elements of working with turntables in performance. I struggled with the chance and error notions of performing for a number of years within improvisation and composition for turntables. However, having 'matured' as improviser, I now embrace this notion to the point where I am now comfortable writing for this to occur.

My research in to the music of Eliane Radigue has been accidental and predominantly through live performances. Her use of drones has had a profound effect on this piece. I first came across Eliane Radigue's work whilst working alongside Rhodri Davies . 'Occam I' was a commissioned work written

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[131] Butcher, J. 2014. *Free Improvisation.* [Online] [Accessed 1 October 2016] Available from: http://ahadmaster.blogspot.co.uk

specifically for Davies and since then, a number of further Occam works have

been commissioned. My conversations with Davies have included talking about

the notation of new works that are written specifically for performers that can

result in the most sublime and articulate performances. I was present at a

performance at Glasgow Tectonics Festival 2015 at City Halls of Occam X, Occam

River X, Occam River IV, and Occam Delta VIII, performed by cellist Charles Curtis,

harpist Rhodri Davies, tuba player Robin Hayward and bassoonist Dafne Vicente-

Sandoval and broadcast on the BBC Radio 3[132]. In discussion with both Rhodri

Davies and Charles Curtis, both revelaed that the music is not typically notated

but in fact a verbal communication, which could be described as the 'essence' of

Haiku poetry. Radigue has been working with these specific musicians in person

at her home in Paris over varying lengths of time, working with specific

instruments to explore her method of communicating not just the composition,

but the other worldly and ethereal presence of the music she writes. As much as I

admire the Radigue's method of composition along with its results, in the context

of writing for other performers, that may be from a community setting, to

communicate the specific ideas I have I need to use written notation. In search of

the 'other worldly' sounds Radigue employs, I researched extended instrumental

techniques to begin to understand the sound world and how experimentation

develops new sounds. I spoke with experiemtnal guitarist and composers Neil

Davidson about his use of stones, spatulas, dowels and ebow on an acoustic guitar

to make new sounds. I had previously seen glimpses of performers working with

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[132] BBC Radio 3. 2015. *BBC Radio 3 Website.* [Online] [Accessed 1 October 2016]
Available from: http://www.bbc.co.uk/programmes/b063zphx

auxiliary objects on their instruments but listening to Neil Davidson's *Grain*[133]

was the first time that I had heard instrumental sounds that I wasn't able to

immediately recognise. It made me think about John Stevens' *Triangle*[134], where

three performers sat in a triangle are asked to perform free improvisation with

their right hand on an instrument, diverting their attention from this practice and

instead, listen to the performer on their left side, and react to their performing

with their left hand. By dividing the performer's attention from free

improvisation and focusing on the left side where they are clearly responding to

another performer, there is a removal of attention from the right hand side and

this makes a curious mixture of conscious and unconscious performing, in a

circular manner. From my experiments of this exercise, this results in a bizarre

echo effect of beating rhythms and an increase in tempo. *Triangle* is certainly a

different way of placing importance on gesture rather than the resulting sound for

a performer in comparison to how Neil Davidson performs with his guitar, but

they both influenced my work with the turntables, in particular *BAWWWY*.

 One further element that intrigued me was Davidson's use of gesture and his

patience and determination to repeat the gesture to create a drone. As simple as

it may sound, his measure and judgment of duration brought to life the colours of

the gesture through repetition, which I chose to borrow by looping the oscillators

used in *BAWWWY* .

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[133] Davidson, N. 2006. Grain. Neil Davidson. *Grain.* [CD] Glasgow: Never Come
Ashore.
[134] Stevens, J. 1985. *Search and Reflect – A Music Workshop Handbook.* London: BP
Community Music Ltd.

When sketching BAWWWY, I initially used several different drawings and notational systems to note my work[135]. One system is similar to that of Cathy Berbarian's *Stripsody*[136]. After composing the piece, I set to task, writing the score but had to decide the boundaries and rules. I debated which elements of the work were open to interpretation, trying a small set of simple rules for each turntable, calculating if the probability of the desired rhythmic patterns, sub bass rumblings and high pitch tuning on the turntables would be achieved. I then took the gestures from the score and adapted them to a four part graphic score. This presented a number of options for the piece. The duration of the whole work was now flexible, the timing of the entries open, with a high probability that the desired gestures (made between each pair of two turntables/two oscillators interacting) will occur, though not guaranteed. This score also presents the option of the work to be performed on other instruments and the possibility of a predominantly silent performance with a number of small durational gestures, similar to the directions of John Cage's *Improvisation IV*[137].

Throughout my research, I have addressed notating for turntables and how this is different for every piece. In the case of this work, I considered whether the turntablist could be a performer that doesn't read music, with little experience in turntable work but strong musical skills. This piece does not function with an ensemble or team in mind, it is not designed to explicitly teach turntablist skills (like the skratch exercises do) since its focus is on the sonic qualities of the oscillators. I also considered and discussed the work with a number of participants from NOISESTRA, one of whom did perform the work and preferred

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[135] Please see Appendices for both graphic score sketches.
[136] Berberian, C. 1966. *Stripsody* [Music Score] London: Edition Peters.
[137] Cage, J. 1980-2. *Improvisation IV* [Music Score] London: Edition Peters.

the initial sketched graphic score with a set duration and visual directions. There

was a general preference for graphics that leave some room for interpretation.

Working with an undefined duration made the group unsure and they felt

uncomfortable performing this. They were worried that their interpretation may

be 'wrong' or 'unsuccessful' and found the responsibility of performing with four

turntables intimidating. Confidence was key in this discussion, though the group

have been previously comfortable using graphic scores and improvising with

skratching and beatjuggling. BAWWWY demands more of the performers, so

despite the simplicity of the gestures (in comparison to intricate skratches), the

longer durational nature of the gestures plus the coordination of four turntables

and two mixers for volume control was overwhelming.

One interesting point from the discussions with NOISESTRA was that the use of

words to describe the gestures alongside re-appropriated musical symbols felt

welcoming and 'user-friendly'. Though this isn't improvisatory, there are a

number of elements to be deduced in the score for a finalized performance and

this reminded me of John Butcher's *15 Simple Statements on Free Improvisation*:

> Free improvised music is necessarily spontaneous, but is built on
> a background of years of study, experiment, thought and
> experience.[138]

Butcher's point can be reversed to further reinforce the group's opinion, i.e. that

the familiarity and relation to musical symbols in a graphic score gave them the

confidence to improvise from the graphic score.

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[138] Butcher, J. 2014. *Free Improvisation.* [Online] [Accessed 1 October 2016]
Available from: http://ahadmaster.blogspot.co.uk

Despite the clarification from NOISESTRA and their comfort using the graphic score, the sketch does not specifically capture the desired sonic gestures and the risk of these gestures not being achieved would defeat the composition of this work.

I have looked at numerous graphic scores and alongside the musical and philosophical ideas, have found the visual aesthetics of Earle Brown's work appealing. The dichotomy of control as a composer and freedom as a performer is at play here and I have admired Brown's arguments through his works. In the prefatory notes to *4 Systems*, Brown discusses the immeasurable qualities of time, frequency, timbre, modes of attack, and how this cannot be accurately controlled or measured through notation or a performer.

> No metric system or notation based on metrics is able to indicate
> all of the possible points in the continuum, yet sound may begin
> or end anywhere along this dimension.[139]

He further elaborates:

> An ambiguous but implicitly inclusive graphic 'notation', and
> alert, sympathetic performers, are conceivable catalysts for
> activating this 'process' within continua[140]

With this in mind, I experimented with a graphic notation, where the number of events per turntable occurred within a clearly defined space on paper. I decided that the rhythmic beating elements needed to be represented and used lines with varying lengths to represent this. A long continuous, thicker line represents continuity and small, blackened shapes represented gestures with a definitive beginning and end. The sizes of the shapes are relative to their duration (small = shorter duration, large = longer duration), though these ideas once put into

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[139] Brown, E. 1986. *4 Systems* [Music Score] London: Associated Music Publishers.
[140] Ibid.

practice, left me thinking the score still lacked my desired clarity. I agree with Brown's necessity for a performer to be alert and sympathetic, however I still think that this version of a graphic score is too open, particularly in duration and rhythm to achieve specific gestures

I initially drew the turntables as two separate duets, which I brought together in an experiment to use multiple instances of the same oscillator on several turntables at differing speeds to explore rhythmic beatings. I then combined two different oscillators/frequencies as two turntable duos to further develop and broaden the narrative, as I have previously experimented with one sound on several turntables in *Ance* and in live improvisations.

These sketches are rough charts that accurately clarify durations, dynamics, pitch on turntables, but purely serve a functional purpose. They do not specify the rhythmic beatings that occur with multiple oscillators, but set up the correct and specific conditions in which this would definitely occur. Going back to the previous discussions I had with NOISESTRA, the chart is complicated and difficult to read, especially as it is a number of pages long, reading four lines at a time throughout for four turntables. There is an argument to be made that performing with four turntables is difficult in performance practice, which I would argue in the case of NOISESTRA's comments. The graphic score is clear and serves a straightforward function; however, I sketched the music in this way, initially as an improviser, wanting to remember how I made specific sounds, hence, the functional purpose of the graphics. The charts do not satisfy me aesthetically as a composer, nor do they convey the sound to be made. I have therefore continued to look for a better means to notate.

I frequently come back to the music of Alvin Lucier, most often at live performances and recordings, not through his scores. When I did explore his scores, what I have found most interesting is the clarity and articulate nature of his instructions in his text scores, where he is explicit and coherent with headings and desired effects from the instructions given.

In *Music for Piano with Magnetic Strings*, under the 'Performance' heading, he writes :

> Listen for harmonics, audible beating, occasional rhythms produced by magnets vibrating against adjacent string, and other acoustic phenomena. Form single tones, intervals, chords and clusters. From time to time, create unisons (by placing magnetic on two string of a single tone), fifths, octaves and twelfths, which may produce audible beating due to slight discrepancies in tuning[141]

Similar to Brown, Lucier is expecting an informed and alert performer to be involved, thus allowing space for interpretation alongside specific instructions for desired gestures. I admire the detail and accuracy of Lucier here; however, I wish to convey similar detail whilst at the same time adding element of duration and boundaries for specific gestures.

Robert Ashley's *Wolfman*[142] text score is longer than typical Lucier scores and has many more specific descriptions of gestures and vocal technique. Like Lucier, he has broken down the score under specific titles, including vocal part, amplification, procedure and performance, and presentation. The subdivision of instructions brings clarity and cohesion to the score whilst offering personal

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[141] Lucier, A. 1995. *Music for Piano with Magnetic Strings.* [Music Score] Frankfurt am Main: Material Press.
[142] Austin, L and Kahn, D. 2011. *Source – Music of the Avant-Garde, 1966-73* Berkley: University of California Press, Berkeley. p143.

insights from the composer, his experiences in performance and visual diagrams, as to further explain the text.

In my text score for *BAWWWY*, I have used four titles, description, preparation, diagram of turntables and performance. I believe that this accurately conveys my intentions as a composer.

I specify that the total duration of the performance is to be between 30 to 60 minutes and refer to durations of turntables 2, 3 and 4 to be relative to turntable 1. By using a time line as the relative comparative means for the duration without using a stop watch, this allows a performer to determine their own duration and work flexibly whilst performing the score. The instructions have an added element of working duration and timing of gestures on the turntables, however, it has been written from a pragmatic perspective and previously performed live.

In his score, Ashley elaborates on the reasons behind specific gestures and sound sources, such as exploring the vocal beatings. In previous drafts I had included notes similar to this, for example, 'explore the impact that multiple turntables with two duos of sine tones will have live'. On reflection, these notes were omitted as I want the performer to discover, explore and experiment the richness of the resulting sounds in the performance experience.

The specification of a performer sympathetic to a specific genre or perspective of performing is important to Lucier, however, unlike the initial graphics that I sketched for *BAWWWY*, the instructions are still functional, setting the correct circumstances and conditions for the desired gestures with an added description for the performer to understand that the musical gestures achieved should be specifically explored.

Chapter 6. Conclusion

Working through this portfolio has led me to several conclusions with respect to the topics covered in the previous chapters: Participatory work is a valid and useful method within composition that I will continue to work with. I have attended a number of conferences concerning participatory work, its benefits to participants, to artists and its validity in the arts. As my commentary and work reflects, I am keen on John Stevens and his approach to participatory work; however, I know I take for granted that Stevens' doesn't believe in simplifying his musical goals or missing out difficult musical concepts. He successfully proves that complex, experimental and 'high art' ideas can be translated into participatory work without being patronising or simplistic. He accepts that participants are equals and that it is only a matter of understanding, method of communicating and idea that will lead to success. I agree whole-heartedly with his methodology.

> *By learning more about the automatic complexity of the human body, we may be able to prove conclusively that all men are born with potentially brilliant intellect, or at least a very high degree of cognitive competence, and that the source of cultural creativity is the consciousness that springs from social cooperation and loving interaction.*[143]

John Blacking's research into how musical people are with and without training from all over the world supports my belief that everyone is musical, we're just not all trained.

> *There is evidence which suggests that, although human creativity may appear to be the result of individual effort, it is in fact a collective effort that is expressed in the behaviour of individuals.*[144]

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[143] Blacking, J. 1973. *How Musical Is Man?* Washington: University Of Washington Press. p115
[144] Blacking, J. 1973. *How Musical Is Man?* Washington: University Of Washington Press. p106

Like Blacking I also believe that group work and community serve to enhance people's musical abilities. By sharing skills and spending time together in an ensemble, my new works and research into ideas has become more pragmatic and knowledgeable of performance practices from differing perspectives. I am now writing and performing solo and group turntable works that are from the differing perspectives, ideas and practices of different members of NOISESTRA, in a way I could never have imagined before.

The benefits of this work have been unpredictable and I know that this portfolio is contributing to the repertoire and future of turntablism in a way that I couldn't have imagined beforehand. I am now able to work with other contemporaries in collaborative work, involving both community participants and professionals from a wide range of disciplines, including theatre and dance.

Throughout the portfolio I have explored different notations and experimented with which notational methods best suit each individual composition. I conclude that for every turntable work, there is a different notational system that will work successfully and will clearly articulate my intentions to performers. When evaluating how best to write a piece, there needs to be an evaluation of who the performers are and how best to notate for them. Having a flexible approach to my writing, in lieu of my current career in composition, is a reality of working in the Arts industry. I believe it is important that music is played, performed, consumed and made relevant to the performers and audience of that time. Music will be written for many varying circumstances and settings, but participation and a participatory approach is just as equally valid in the Royal Opera House or the community centre.

Whilst researching and developing new works, sketches that haven't been finished have often brought many more ideas forward, sometime ideas I had previously conceived or thought of. One of those ideas was the use of multiple turntables by one performer and how to then translate that into different contexts with different instruments. I am now continuing to work on new works for multiple turntables and varying professional ensembles. In a professional context, those ensembles are now expanding and the role of the multiple turntables is becoming more sophisticated.

There is a strong future ahead for new music composition with turntables, but it is uncertain whether or not it will be reliant on new technology. From my perspective, there is an appetite from ensembles and audiences with respect to analogue instruments and differing sound media formats. There is a desire to see a mixture of media used as instruments, and in this scenario, I think a case can be made that we will now enter a new phase in music where formats, old and new, will be used together to their strengths. The complicated loops, combinations and methods that performers are now conspiring are becoming more and more sophisticated. There are underlying narratives in instrumental choices and playing styles that have as much depth in their integrity as the compositions they are performing too, and I believe that this will also be symptomatic of this current generation of composers and performers.

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