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The extended drum kit: A study of techniques and approaches in free improvisational contexts and their influence on contemporary compositions

JAMES WILLIAM HEDGECOCK

A thesis submitted to the University of Huddersfield in partial fulfilment of the requirements for the degree of MA by Research

OCTOBER 29, 2020

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The extended drum kit: A study of techniques and approaches in free improvisational contexts and their influence on contemporary compositions

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Chapter 1 - Introduction

1.1 – Background

I had my first experiences of free improvisation early in my undergraduate studies at the University of Huddersfield. Improvisation classes led by Philip Thomas and Simon H Fell in my first year introduced me to the concept of improvisation without any kind of stylistic conventions, sparking my interest in and enthusiasm for free improvisation. Following this, I then attended the Huddersfield Contemporary Music Festival for the first time in 2014, experiencing free improvisation for the first time in a live setting at a performance by vocalist Phil Minton and double bassist Simon H Fell.

It was at the 2015 Huddersfield Contemporary Music Festival that I first saw Mark Sanders perform with Ensemble Anomaly, in a concert featuring Paul Rutherford's *Quasi-Mode III* (2015) and Derek Bailey's *No 22 [Ping]* (2015). This was the first time I had encountered the drum kit as a multiple percussion instrument in an improvisational context, and Sanders' captivating performance was an early inspiration for me to further investigate how the drum kit is used in contexts of free improvisation and within contemporary compositions.
At the Electric Spring Festival the following year, I had the chance to hear an improvised set by the Bark! trio (2016), which included Phillip Marks on drums. Marks's contrasting approach to drum kit improvisation within the ensemble inspired me to further explore the individual approaches and styles of a range of improvising drummers and percussionists, and I became eager to develop my own skills in free improvisation further.
I eventually had the opportunity to speak to Mark Sanders for the first time in 2017 after his performance with saxophonist Julie Kjær (2017), and this performance and initial conversation were among the first main inspirations for me to research improvisational and compositional practices relating to the extended drum kit further.

As a primarily orchestrally-trained percussionist, during my undergraduate course I performed a wide variety of solo percussion repertoire of increasing complexity. My interest and proficiency in extended percussion techniques grew through performing these works, and I was very keen to take this further after my degree. As well as my classical playing, I have had considerable experience as a jazz drummer, so when I first discovered free jazz

and free improvisation alongside learning these more complex percussion works, I was fascinated by the possibilities of the limitless range of timbres achievable through the extended techniques I had started to explore, combined with patterns and phrases inspired by traditional jazz drumming. I realised that this project would give me the opportunity to investigate this further and develop my own improvisational style and voice alongside studying contemporary compositions for drum kit as multiple percussion.

1.2 – Research aims

The questions I intended to address in this research were the following:

- What are some of the practices that have been developed by improvisers?

It was necessary to contextualise this research by identifying the tradition of free improvisation and exploring in depth the approaches and practice of the improvising drummers and percussionists I had seen perform or was aware of, with particular focus on specific techniques and the development of their individual improvisational languages.

- How have contemporary composers written for the drum kit as a multiple percussion instrument, and what is the relationship between composition and improvisation in these works?

Having encountered contemporary solo and ensemble pieces that have treated the drum kit as a multiple percussion instrument and included improvised elements, I wanted to examine more closely the ways in which composers have written for this instrument (or rather, collection of instruments) and explore and document the interaction between composition and improvisation in these works. I intended to investigate the ways in which improvisatory practices can be applied to composed works, and the extent to which the performer becomes a composer of sorts when bringing these to the piece.

- How can I develop an improvisatory language treating the drum kit as multiple percussion?

I was very keen to have the opportunity to develop my skills as an improviser and in performing these contemporary works during this project, learning from expert practitioners in free improvisation and contemporary music performance. I set out to develop my own voice as an improvising drummer during this project and reflect on how my own creative practice developed as part of my research.

More broadly, this project has given me the opportunity to investigate the drum kit in improvisation outside of the jazz and popular music contexts in which most of my improvisation experience has hitherto taken place.

1.3 – Research context

As will be discussed in my literature review, there are many resources examining free improvisation and wider improvisational practice, as well as a considerable amount of literature concerned specifically with percussion and its use and role in improvisatory contexts. There is, however, less material primarily focussing on the drum kit in free improvisation, so in my study I aim to expand on knowledge regarding its use and role within free improvisation, which will have connections with the existing literature regarding percussion in free improvisation.

1.4 – Literature review

Although there are relatively few existing publications specifically regarding the extended drum kit in free improvisational contexts or written by contemporary improvising drummers, there are a number of other valuable sources relating to the role of percussion more broadly in free improvisation and the wider history of the development of free improvisation. These have been particularly useful for providing historic grounding for my research and gaining an understanding of how contemporary composers have responded to and incorporated elements developed by improvisers up until the present day, as well as identifying the potential developments and implications these may bring to contemporary composition in the near future.

1.4.1 – History and development of free improvisation

The *European Free Improvisation* website (Stubley et al., 2017) hosts a wealth of information and multimedia particularly focusing on free improvisation in Europe, including profiles of significant practitioners and groups, interviews with artists, articles, audio and video clips of performances and links to a range of related sites for musicians, magazines, labels and organisations. Stubley (2017) emphasises that all information on this site has been thoroughly verified to ensure it is as accurate as possible, with the majority of the information being provided by the artists themselves. This, therefore, is a reliable source for tracing the history of free improvisation in Europe and understanding the views and perspectives of the artists who were (and are) working at the very heart of this movement. Listening to and viewing recordings of performances by these musicians will also give a clear representation of developments in free improvisation practice in terms of techniques and individual styles.

David Toop's *Into the Maelstrom: Music, Improvisation and the Dream of Freedom Before 1970* (2016) traces the developments of free improvisation up to 1970, exploring the interaction between the growing free improvisation scene and other arts movements, as well as examining the response to and adoption of improvisation in contexts beyond music and art. Toop draws on his own improvisational experience and involvement with the work of a number of important figures central to the development of free improvisation, relating this to the wide range of issues and significant events he discusses. It has received acclaim from Thurston Moore and Evan Parker, both current leading figures in free improvisation, further enhancing the credibility of Toop's writing. This wide-ranging account of the beginnings and early developments of free improvisation, from the perspective of an expert and active improviser, will be particularly valuable in the contextualisation of my research and aiding my understanding of the approaches and philosophies of these improvisers.

Trevor Barre's *Beyond Jazz: Plink, Plonk and Scratch: The Golden Age of Free Music in London 1966-72* (2015) gives an historical account of important events and the people involved in the development of free improvisation from 1966-72. Barre writes in an accessible, conversational style, describing his own experiences of encountering free improvisation in the 1970s onwards. This book has been highly acclaimed by a number of

prestigious figures who were active on the London free improvisation scene in the period studied and/or are currently active and will be a valuable source when tracing the history of free improvisation, with the interpretation of an enthusiast present at many of these performances.

Piekut's (2014) article *Indeterminacy, free improvisation, and the mixed avant-garde: Experimental music in London, 1965–1975* will be another valuable source for understanding more about the development of free improvisation from within the avant-garde movement. Tracing its history from the work of John Cage reaching the UK in the 1960s, Piekut (2014) then focuses on Victor Schonfield and his 'Music Now' organisation as well as the activities of the improvising ensemble AMM and others. This will be another important resource in my research into the history of free improvisation and its roots in the avant-garde movement.

In *Derek Bailey and the story of free improvisation*, Ben Watson (2004) gives an in-depth biographical account of pioneering guitarist and improviser Derek Bailey, telling the story of his branching out into free improvisation within the 1960s avant-garde movement and beyond. Watson (2004) also traces the wider history of free improvisation, and through interviews with Bailey and other important figures who have contributed to the development of free improvisation, presents a diverse collection of perspectives, approaches and personal accounts of significant events from many of these pioneers. The contrasting and wide-ranging perspectives of these figures will be highly beneficial to my research, further broadening my understanding and aiding my collation of a balanced, comprehensive historical account of the development of free improvisation to date.

In *Jazz outside the Marketplace: Free Improvisation and Nonprofit Sponsorship of the Arts, 1965-1980*, Anderson (2002) traces the emergence of free improvisation from within the jazz movement, contextualising this within the wider social, political and cultural circumstances of the time and examining the way these circumstances affected jazz and the development of free improvisation, and, indeed, the interaction between these two movements as free improvisation gained momentum. This will be a particularly useful source contributing to the contextualisation of my research, as it provides a highly detailed

insight into the wider issues affecting the artists involved with these movements and the interaction between jazz and free improvisation in its early stages.

Free jazz and free improvisation: an encyclopedia (Jenkins, 2004) will be a highly valuable resource when researching pioneering improvisers, groups, composers, recordings, specific terminology and particular significant events in the development of free improvisation, with a wealth of detailed entries. Although published fourteen years ago, it will certainly still be pertinent to my research and greatly aid my understanding of the history and establishment of free improvisation.

Lloyd Peterson's "Music and the Creative Spirit : Innovators in Jazz, Improvisation, and the Avant Garde" (2006) studies forty-two important figures in improvised music and jazz, mostly those active from the second half of the 20th century onwards. Lloyd has conducted meticulous interviews with the majority of these musicians and includes a transcript of these in each chapter, with accounts from the direct viewpoints of the musicians giving a personal and detailed representation of important events in the development of improvisation and within the wider context of the evolving jazz scene. Having the perspectives from the featured musicians themselves will enhance my understanding of the events and developments in improvised music, and his wide-ranging selection of figures is likely to introduce names that are new to me and potentially very relevant to my project.

1.4.2 – Approaches to free improvisation

In *A cybernetic model approach for free jazz improvisations*, Braasch (2011) compares the ways that musicians communicate in free and traditional jazz improvisation contexts, suggesting how this information could be applied in the creation of "automated music improvisation systems". As most of my experience improvising as a kit player has been in jazz contexts, it will be of particular interest to examine the ways in which Braasch identifies the similarities and differences between these improvisational contexts and consider how these relate to my own experiences of jazz and free improvisation.

In *No Sound Is Innocent*, Eddie Prévost (1995) explores the history of free improvisation and its development, drawing on his experience as a founding member of AMM. He reflects in

detail on a wide range of aspects of music and improvisation (musical and otherwise), both in terms of music itself and the wider socio-political contexts surrounding it, relating his observations and considerations to the philosophy and practice of AMM and his experience as a core member from its emergence through all of its developments.
Having Prévost's insight was highly beneficial to my research, as his experience of being at the forefront of free improvisation through its developments and his personal perspective on these wide-ranging issues will be very valuable for understanding the development of free improvisation and the work of AMM within this, as well as gaining a deeper understanding of Prévost's viewpoints and approach to his work.

Derek Bailey's (1993) *Improvisation: its nature and practice in music* discusses the practice and function of improvisation in a wide variety of traditional, popular and contemporary musical contexts, with a range of perspectives from performers and composers operating in each of these disciplines. A particularly useful section in this book for my research studies the role of the composer and the interaction between compositional and improvisational practices, in which Bailey (1993, pp. 59-81) considers this in relation to a range of musical contexts, including viewpoints from a number of composers and improvising instrumentalists within these diverse contexts. The crossover and interaction between composition and improvisation is a key aspect of my research, so these perspectives will be essential in recognising how contemporary composition has gradually adapted and responded to improvisational practice.

Creative improvisation: jazz, contemporary music and beyond: how to develop techniques of improvisation for any musical context (Dean, 1989) covers a wide range of musical styles and contexts, giving examples and guidance on improvisational practice in each. Having been published almost thirty years ago, the content may be somewhat dated in relation to contemporary improvisational practice, however certain aspects and methods detailed in this book are likely to remain relevant to improvisation in general. It also provides a useful insight into common tendencies in improvisation at this time, which could then be contrasted with contemporary practice.

1.4.3 – Percussion & drum kit technique in improvisation and contemporary performance practice

Lê Quan Ninh (2014) gives a detailed account of his experience as an improvising percussionist in *Improvising Freely: the ABCs of an Experience*. This was an important resource in my research, giving a valuable insight into the approach of a contemporary improviser – specifically, a percussionist – which was highly relevant in informing my own improvisational practice, highlighting aspects for consideration from percussion-specific technical and instrumental concerns to more broad questions of psychology, mentality, identity and creativity as an improviser.

Nichols (2012), in his paper *Important works for drum set as a multiple percussion instrument*, traces the development of the drum set in depth and studies a number of composers' responses to specific aspects of the drum kit and its performance practice, illustrating this with many examples of compositions for solo drum set. The catalogue of works for solo drum kit that Nichols (2012) includes was a useful resource for an introduction to contemporary drum set repertoire that treats the kit as a solo multi-percussion instrument rather than as part of a rhythm section in popular music contexts, also providing a starting point for discovering solo works to perform in my recitals for this project. It also provides a valuable insight into various composers' approaches to writing for drum kit as solo multiple percussion, as well as detailed analysis of the elements and conventions within these pieces.

In Stephen Davis's paper *New Sonic Adventures in Drum-Set Performance* (n.d.), he presents his research into techniques and approaches for the drum kit in free improvisation, analysing performances given by improvising drummers and examining their individual style and methods for drum kit improvisation. There are some similarities between his project and my own, in that his aim is to develop his improvisational language through studying performances and interviewing established improvisers; this is also a part of what I wished to achieve with my project as well as investigating particular contemporary composers' responses to this in their writing for solo drum set. It is possible that his experience as a jazz kit player moving towards free improvisation could be similar to mine, so it will be useful to see how he approaches this research and compare this with my own project.

In *Developing an Interpretive Context: Learning Brian Ferneyhough's Bone* Alphabet, Steven Schick (1994) describes the process of learning Ferneyhough's highly complex work for multiple percussion, *Bone Alphabet*, detailing his approach, considerations and issues encountered regarding each element of music for the piece. All of the works I have studied and performed for this project have had elements of freedom within the score, often including notated material alongside frameworks and ideas for improvisation and/or spatially-notated and graphically-scored material. It may therefore seem somewhat incongruous to include Schick's writing on *Bone Alphabet* in the contextualisation of this project. "Extreme complexity and performative difficulty" (Schick, 1994, p. 132) are hallmarks of Brian Ferneyhough's compositions (to which *Bone Alphabet* is no exception), requiring fastidious preparation and in-depth deconstruction of the score in order to achieve a faithful realisation in performance. This initially appears to contrast against the ideas of free improvisation (and freeness within compositions for drum kit) forming the basis of my project. However, I found certain aspects of Schick's approach to learning *Bone Alphabet* to be relevant when studying more complex notated material in the pieces I learned and performed, gaining new ideas to take forward in my learning process.

One of the main issues that Schick (1994) discusses is the high degree of complexity and sophistication in Ferneyhough's rhythmic writing, and his approach to deconstructing the piece in fine detail to achieve an accurate realisation in performance, faithful to Ferneyhough's demands in the score. Schick (1994, p136-137) describes taking a bar-by-bar approach to deconstructing the polyrhythmic material in *Bone Alphabet*, physically placing each bar on graph paper to enable him to "better calculate rhythmical relationships". He gives a number of examples of challenging polyrhythmic figures, the constituent parts of which often contain varying levels of nested tuplets and subdivisions and are divided between the instruments, explaining his process for learning these and articulating each distinct part in the polyphony to avoid presenting a "flat rhythmic composite" and thus "dilut[ing] a rich rhythmic structure into a monochromatic blob" (Schick, 1994, p. 145). The rhythmical challenges (and the dexterity required to overcome these) in the works I studied and performed for this project were not as consistently complex and demanding as that of *Bone Alphabet*, however some of the issues Schick discusses in negotiating the

challenging rhythmic content in *Bone Alphabet* were familiar and his approach to overcoming these gave me useful ideas to take forward in my practice.
Some of the works I have learned and performed during this project, particularly Sarah Nemtsov's *Study III* and Alex Harker's *The Kinetics of Resonance*, include some complex polyrhythmic writing, often requiring a high level of dexterity and limb independence in order to accurately perform these patterns across the kit. This required some careful examination, breaking the figures down into components, determining how they fit together rhythmically (occasionally using digital playback from Sibelius to aid my comprehension of particularly complex figures) and physically between limbs, then developing fluency and fluidity when practising the full phrases on the kit.

Although the repertoire I have studied and performed for this project has largely been written for particular configurations of drum kit, many of these works treat the drum kit as a collection of instruments akin to a multiple percussion setup, rather than writing for the kit in a popular or jazz idiom. Schick's writing seemed pertinent to my study as this explored a number of issues in relation to the context of a work specifically for multiple percussion, extending my discussion beyond that of the freedoms and limitations of setups based around the drum kit. Schick (1994) discusses the challenges presented by Ferneyhough's instrumentational requirements for *Bone Alphabet* and his approach to meeting these criteria in his. "*Bone Alphabet*…is written for seven undefined sound sources [and] the exact instruments are to be chosen by the performer" (Schick, 1994, p. 134), with Ferneyhough's stipulations that these "should consist of sounds organised consecutively from high to low where adjacent instruments may not belong to the same family" (Schick, 1994, p. 135). Schick (1994, pp. 135-136) goes on to describe how he addressed these requirements, as well as the necessity of considering the decay of each instrument and finding a balance between distinctiveness and complementarity of the individual sounds, in order to preserve clarity in the polyphonic and polyrhythmic writing. Schick (1994, p. 136) concludes:

> Eventually it became clear that freedom of choice in the instrumentation of Bone Alphabet was largely illusory. The number of possible instrumental configurations which satisfied the rhythmic and textural conditions of the score and which did not at the same time pose insoluble performance problems was very limited indeed.

Instrumentation was generally less of a fundamental issue for the works I studied; the instrumentations were either based around a standard drum kit, otherwise prescribed in detail, or left almost entirely to the performer's discretion. Not dissimilarly to Schick's conversations with Ferneyhough as he learned and prepared *Bone Alphabet* for performance, I discussed with Alex Harker the specifics of instrumentation and techniques to produce the timbres and effects he intended in *The Kinetics of Resonance*, also enabling me to understand in more detail the extent to which particular aspects of the piece were open to the performer's interpretation.

Wilmoth's (2006) article, *Scrapes and Hisses: Extended Techniques in Improvised Music* examines in detail the development and use of extended techniques by a range of established improvising musicians, as well as briefly touching on particular late-20th century composers known for their extensive writing for these techniques. Whilst this article is not specifically concerned with the use of these techniques in relation to percussion, Wilmoth's account of the development of extended techniques, and his investigation of the extent to which particular improvisers use these as the basis of their language, will be particularly useful in my research, with his in-depth study of the approaches taken by various improvisers to using these techniques providing a valuable insight into current improvisational practice and its development.

From this initial literature review, it is clear that there are many sources providing first-hand insights into the development of free improvisational practice from its roots to the present day, with some specifically focussing on percussion in these contexts. With this project, I hope to contribute to knowledge further with regard to the development of the role of the extended drum kit within free improvisation, as well as examining the interplay between improvisation and contemporary composition, particularly concerning how composers have responded to this in their solo works for this instrumentation.

1.5 – Methodology

As part of my research, I have developed my own improvisation skills as both a soloist and ensemble member, as well as learning contemporary repertoire written for the drum kit as a solo instrument. To achieve this, I have taken tuition from active improvising drummers and percussionists as well as members of university staff. Having tuition and input from a range of improvisers has been hugely beneficial to the development of my own practice, as experience of their differing approaches and styles has had a broader influence on my playing.

I have studied a range of contemporary solo works for extended drum kit, examining how particular composers have written for the drum kit as multiple percussion and analysing the influence of techniques and approaches originating in free improvisation on these works. In the recitals I gave during the course of the project, I performed selected solo works that I studied, presenting these alongside improvisations to illustrate the relationship between improvisation and composition in these works.

A major component of my research was the documentation of and reflection on my own creative practice as I developed my skills as an improviser and performer of contemporary percussion works. The questions, observations and discoveries arising from my practical experience brought new ideas and contributions in response to my research questions, as well as contextualising my practice within the current free improvisation landscape and considering how I have developed my own distinct improvisatory language influenced by what I have learned from practitioners and the performances I have heard and seen.

Interviewing improvisers and contemporary composers was another key element to this research, as this gave a direct, detailed insight into their individual approaches to their practice, enhancing my understanding of developments and conventions in these areas, with their wide-ranging personal experiences and perspectives greatly enriching my research.

Critical analysis of improvisers' performances was a significant component of my research. Through attending live performances, viewing video recordings and listening to audio recordings, I have developed a detailed knowledge of techniques employed by particular practitioners and an understanding of their individual improvisational styles and approaches. This also informed my own practice, with aspects of these performances inspiring my development as an improviser.

To examine the effect of improvisation on composition in a wider sense would have been too broad in the context of this project, however I have explored this in relation to the particular case studies of repertoire analysed in my research, identifying specific aspects of these works exhibiting the interplay between improvisation and composition.

Chapter 2 – The drum kit and improvisatory practice

2.1 – What is the drum kit?

The definition of 'drum kit' from the Cambridge Dictionary (n.d.) is "a set of drums and cymbals played by one person". Throughout this thesis, I make reference to the 'drum kit' and the 'extended drum kit'; I use 'drum kit' essentially to describe a standard four- or five-piece drum kit that would be used in a jazz or popular music setting, generally consisting of a pedal bass drum, snare drum, a high and/or medium rack tom and a floor tom, as well as hi-hat, crash and ride cymbals. By 'extended drum kit', I refer to any configuration of drum kit that has the regular kit at its core, with further percussive components in the form of additional drums and cymbals, and the interaction with all of these elements using a range of mallets beyond (but also including) what would typically be used for jazz or pop drumming. I was particularly interested in the drum kit specifically rather than percussion as a whole, as I was keen to investigate how aspects of 'conventional' drum kit playing (particularly in a jazz idiom) could be incorporated into and extended within the context of free improvisation.

A question arising from my investigations into the use of the drum kit specifically was whether it was necessary for the player to be seated behind this collection of instruments for it to be referred to as a 'drum kit', rather than 'multiple percussion' or similar. In most

cases, both in the contexts of improvisation and the works I have studied in this project, the performer has been seated to play a collection of instruments with the standard drum kit at its core, however there are some notable exceptions to this both in the practice of particular improvisers and in my case studies of pieces I have performed (such as Cat Hope's *Broken Approach*) that I examine later in this thesis.

Each of the improvising drummers I have studied in this project have extended the regular drum kit in unique ways to include their own modifications and adaptations, creating an individualised version of the drum kit that gives them the facility to fluidly improvise using a range of techniques and timbres across the kit. In the development of my own improvisational practice during this project, I have considered the ways in which I could modify and augment the standard drum kit to expand my timbral palette for my improvisations, finding sounds and techniques that I could draw upon that would be unique to my voice as an improviser.

2.2 – Who are some of the current practitioners in this area?

To give a detailed, exhaustive review of improvising percussionists and drummers since the birth of free improvisation in the 1960s would be broader than necessary for the contextualisation for this project. I have therefore chosen to primarily focus on a number of current practitioners based in the United Kingdom, whose performances sparked my enthusiasm for free improvisation and inspired me to embark on this research.

Studying active practitioners would also enable me to gain a greater understanding of current improvisational practice and each performer's individual improvisational style, through seeing and hearing their live and recorded performances and learning directly from some of them in lessons and interviews.

2.2.1 – Mark Sanders

Mark Sanders is one of Britain's leading free-improvising drummers, with a career spanning almost forty years, performing extensively across the UK and Europe as well as in South America and Australia. He has worked with many leading figures in free improvisation, both

key to its initial development and others highly active today, including Derek Bailey, John Butcher, Steve Beresford, Evan Parker, Simon H Fell, Okkyung Lee, Sarah Gail Brand and Elliot Galvin. Sanders regularly performs with saxophonist John Butcher, touring with him to perform Butcher's 'Tarab Cuts', a part-composed, part-improvised work featuring recordings of Arabic music from the collection of Kamal Kassar in Beirut. In the UK, he frequently performs at venues such as Café OTO and the Vortex Jazz Club, appears regularly at the Huddersfield Contemporary Music Festival and teaches at Leeds College of Music, the University of York, the Royal Academy of Music, and the Guildhall School of Music and Drama. As well as featuring on more than 150 CD releases, there are many other video and audio recordings of his performances available online which provided a useful further insight into his improvisational practice and specific techniques and timbres he has used.

Seeing Mark Sanders perform was my first introduction to the idea of using the drum kit in free improvisation, and his performances were some of my main inspirations to undertake this research project. I was captivated by his playing with Ensemble Anomaly (2015) and Julie Kjær (2017), being fascinated by the seemingly limitless range of sounds he elicited from the many components of the kits he used for these performances, and the fluidity and dexterity and precision with which he generated and combined these timbres.

From seeing and hearing a number of Sanders's performances both live and recorded, I have gained a deeper understanding of his improvisational approaches and language, specific techniques and variations that he often incorporates and the ways in which he interacts and responds to other ensemble members in improvisations. Sanders draws together a wide array of extended techniques in his improvisatory vocabulary, alongside more free jazz-oriented and rudimental patterns and fills. This vast palette of techniques and timbres that Sanders has developed has been a significant inspiration for my own improvisational vocabulary.

In his solo improvisation performed at the Unwhitstable festival in 2011 (shuffleboil, 2011), Sanders uses an array of extended techniques and auxiliary instruments to achieve a range of timbres, many of which are produced by exploring a resonance of some kind, whether it

be striking bells and other metals placed on drumheads so that the drums act as resonating chambers, or bowing the edges of cymbals to draw out high-pitched overtones.
One of Sanders's trademark techniques that appears in this improvisation (and a number of others that I have viewed and attended) is to bow the edge of a ride cymbal with one hand, whilst holding a tamborim against the opposite edge with the other hand. The contact of the vibrating cymbal with the drumhead causes the tamborim to amplify and distort particular overtones in the cymbal's resonance, which Sanders modulates by adjusting the position of the tamborim on the edge and surface of the cymbal.

In an improvisation with trombonist Sarah Gail Brand (Lars Ingebrigtsen, 2017), Sanders combines his range of extended techniques with free jazz aesthetics, moving between resonant textures using a range of the aforementioned techniques and blistering groove-based material, both within his own improvisational narrative and in response to Brand's gestures.

A key factor of Sanders's approach is the importance of there being meaning in every gesture. His philosophy is that the improviser is instantly composing, telling a story in which every phrase has significance (M. Sanders, personal communication, Feb 20, 2019). On the subject of the importance of every sound in improvisation, Prévost (1995, p. 112) observes:

> The tiniest sound is amplified by intention. Other noises are transformed into counterpoint. The music begins. Tentative suggestions are offered, politely ignored, admonished or not noticed. Serendipitous slips of the wrist are canonised – pursued by conflagrations and spectacular shell bursts. Momentum is achieved. The music has an energy with which the musician can wrestle, deflecting its trajectory or being thrown inconsequentially aside. … As suddenly as the turbulence arose it subsides, hovering portentously, unpredictable and uncontrollable…

This ethos is certainly manifested in Sanders's playing – there is a clear sense that his use of sound and silence is carefully considered, in that, for example, he allows resonant sounds to speak within his textures and is sensitive to the dynamic when playing in an ensemble, moving between complex soloistic material and taking an accompanying role (or pausing

altogether) as appropriate to modulate the ensemble texture. There is a high level of clarity and coherence in his improvisatory material that he is able to adapt and develop in response to the other musicians' gestures.

It was a privilege to be able to learn from Sanders one-to-one as part of this project. Having guidance from him was invaluable to the development of my improvisational practice, raising many new considerations to take into account when improvising and taking this in new directions beyond the possibilities I had considered in the early stages of honing my improvisational skills.

2.2.2 – Phillip Marks

Phil Marks is a British improvising drummer, who regularly performs across the UK and Europe. He is a member of the Bark! trio with guitarist Rex Casswell and Paul Obermayer on electronics, also performing with other improvisers including Evan Parker and Dominic Lash. Marks has released a number of recordings under his Poor Oedipus label of performances by Bark! and collaborations with pianist Stephen Grew, bringing rare and unreleased recordings of these ensembles to the fore and enabling these to be heard by new audiences. From seeing Marks perform with Bark! myself and having the opportunity to take tuition from him during this project, as well as accessing the large amount of readily-available video and audio recordings on which he performs, I have been able to gain a deeper understanding of his style and approach to improvising in a variety of contexts, as well as specific techniques used and the way he interacts with other improvisers in ensemble situations.

Upon my meeting with Marks for an extended interview and lesson in June 2019, he kindly gave me a CD copy of *Hyperpunkt* (Richard Scott's Lightning Ensemble, 2017), upon which he plays in a quartet together with guitarist David Birchall, Richard Scott on modular synthesizer and saxophonist Sam Andreas. This was a useful resource for further understanding the timbres and techniques he tends towards in his improvisations and how he combines these within the sound world created by the ensemble.

In contrast to other practitioners that I have studied, I learned from Marks that he is a self-taught drummer, who as a jazz enthusiast has been influenced by the performances of many legendary jazz drummers, and has a particular interest in finding ways of extending jazz drumming technique for playing in a free jazz idiom and using this in his wider improvisatory technique (P. Marks, personal communication, June 17, 2019).

As part of the lesson/interview I had with Marks, I had the opportunity to improvise with him as a duo, which was a highly valuable experience for closely learning more about his craft as an improviser and understanding the characteristics of his improvisational technique.

THF Drenching (2013), having attended a performance given by Bark!, observed:

> Marks plays like he's identified a hundred possible rhythmic responses to any musical moment. Rather than choose one, he plays all of them silently in the air over the drums. So that what finally arrives as sound is the scattered total of those blows that actually touch the metal and skins. Sometimes even the continuous air-drumming is arrested and he visibly thinks, stutters, holds back, false-starts, decides, and brings the stick down.

I had certainly found this to be apparent from the performances featuring Marks that I had seen and heard (both live and recorded), and admired the constant energy Marks has when improvising; the way in which he seems to sketch ideas before his sticks meet the skins of the drums or the surface of the cymbals brings a level of excitement as the listener is kept guessing as to the next direction the improvisation will take.

2.2.3 – Steve Noble

Steve Noble is one of Britain's most established improvising drummers, who has worked with many leading figures in free improvisation including Derek Bailey, Evan Parker, Pat Thomas, John Edwards, Alan Wilkinson, Simon H Fell and Rhodri Davies. Noble has performed extensively across the UK and Europe as well as Africa and America, and regularly performs in venues in and around London including Café OTO and at Boat-Ting (a

monthly new music and poetry event). He leads the ensembles N.E.W (with John Edwards and guitarist Alex Ward) and DECOY (with Edwards and pianist Alexander Hawkins). He appears on a vast number of recordings, including releases on his own Ping Pong Productions label and Simon H Fell's label Bruce's Fingers, as well as numerous films of his performances as a soloist and collaborations with many of the aforementioned improvisers.

Although I have not yet seen Noble perform live, I have found reviewing a number of video and audio recordings of his solo and ensemble performances particularly enlightening for understanding his improvisatory approach and vocabulary. Noble's distinct improvisational language encompasses a wide range of aesthetics and techniques: there are clear traits of straight-ahead jazz drumming, including extemporisations around swing patterns, use of brushes, and rudiment-based fills around the kit, which extend into the driving, relentless energy of free jazz playing. In addition, Noble uses an array of extended techniques, with a particular focus on using drums (both within the kit setup and auxiliary smaller drums) as resonators for other instruments and objects in his collection. Davies (n.d.) observes that "Noble sets the drums up very high to his body and sets different percussion *toys* on top of the drums to influence his playing and incorporate some extension of the kit sound."

On the subject of interaction in free jazz, Wilmoth (2006) describes:

> In free jazz, the patterns of interaction are often very clear to the listener[;] a musician plays a melody, another plays a variation on or answer to that melody, and so on. … Free jazz interaction…is usually quite linear and phrase-based[;] a player plays a series of notes that move from one musical place to another.

These characteristics are apparent in Noble's performance with Julie Kjær and John Edwards (Unseen Recordings, 2016); the trio transition between aesthetics of jazz, free jazz and more broad free improvisation, with melodies and unison phrases interspersing sections of improvised material. Noble punctuates and decorates these unison phrases within his grooves and textures, maintaining a high level of energy and tension as the ensemble tread the uneven boundaries between jazz and free improvisation. Noble's improvised material in this performance has its roots in jazz (and free jazz) drumming technique, with bursts of

fast-paced rudimental flourishes around the kit and his use of combinations of sticks and brushes, providing timbral variation and using these contrasts to vary the textural complexity and overall tension and dynamics within the ensemble.

The technique of using the drums (often particularly the snare drum) as a resonator for other instruments and objects is exhibited in a recording of Noble's solo improvisation at Boat-Ting (shuffleboil, 2011), amongst many other examples. By striking, bowing and scraping a variety of objects including hand cymbals, gongs, a serrated metal rod, maracas and a large tuning fork against the head of the snare drum, Noble modulates and augments the timbres of these, with the snare drum's resonance amplifying and accentuating the frequencies of the resonating objects in contact with the drumhead. Noble extends this use of resonance to the ride cymbal adjacent to the snare drum, bowing the cymbal with one hand whilst pressing the head of a large frame drum (not dissimilar to a Brazilian pandeiro) against the edge and surface of the cymbal with the other, which amplifies and modulates the overtones drawn out of the cymbal by the bow.

Noble's solo set recorded at Café Oto (shuffleboil, 2011) exhibits the range of techniques and styles informing his improvisations; he transitions between the jazz-influenced aesthetics and extended techniques as discussed in the examples above, combining groove-based and freer textural layers and often underpinning his timbral explorations with driving ostinati shared between the bass drum and pedalled hi-hat.

I was particularly fascinated by Noble's ability to transition between and combine jazz-influenced, groove-based ideas and freer textures focussed on resonance, which inspired me to consider how these ideas could be incorporated into my own improvisational language.

2.2.4 – Paul Hession

Paul Hession is a British percussionist and drummer from Leeds. In his career of almost 50 years, Hession has worked with many established improvisers including Derek Bailey, Evan Parker, John Edwards, Peter Brötzmann, Simon H Fell and Mick Beck. He established the

Hession/Wilkinson/Fell trio in 1989 with saxophonist Alan Wilkinson and bassist Simon H Fell that has remained active in recent years and released a number of recordings since the 1990s. He currently performs in the trio Hiby-Bardon-Hession with saxophonist Hans Peter Hiby and bassist Michael Bardon. In recent years, Hession's focus has been on the use of electronics to augment percussion in improvised music, and he was awarded a doctorate from the University of Leeds for his research in this area. There are many video and audio recordings available of Hession performing with these varied combinations of musicians and as a soloist, which have been valuable examples for gaining a deeper understanding of and taking inspiration from his improvisational style and technique.

Much of Hession's improvisatory language seems significantly influenced by jazz and free jazz drumming; many of his gestures in his improvisations (both purely acoustic and electronically augmented) incorporate jazz-inspired licks and loose rhythmic patterns, rudiment-based fills and swells of energy around the kit, often in the form of single-stroke rolls. An example of this free jazz aesthetic in Hession's acoustic playing is on *Enter, Leave* (Hession, P., Fell, S.H., & Wharf, C, 2002, track 2), in which Hession's material is based around high-energy quasi-swing time patterns and flurries of fills around the kit, as well as underpinning the ensemble texture with energetic complex patterns and snare and ride-heavy grooves.

In recent years, Hession has worked extensively on augmenting the drum kit with live electronics, extending the timbral and textural possibilities of his improvisational language through working with a digitised version of himself that responds to his playing and generates new material from fragments of his gestures.

Wilmoth (2006) discusses the motives for using electronics in improvisation, suggesting:

> One possible reason that electronic music and improvisation based on extended techniques are intertwined is that timbre (sound quality or color) is a focus for both of them. Electronic music made new kinds of timbre possible; extended techniques, since they are usually based on noise, typically have more to do with timbre than with, for example, melody or harmony.

Naturally, there are limited possibilities for melody or harmony in the specific case of augmenting the drum kit with electronics, but as Wilmoth (2006) suggests, Hession's use of electronics brings about seemingly limitless timbral and rhythmic possibilities. The algorithms continually analyse fragments of the gestures and phrases he plays, generating new material in which the original timbres of each component of his kit are radically altered, stimulating new ideas and directions for the improvisation in response to this.

In his performance with Doug van Nort (Paul Hession, 2014), Hession interacts with van Nort's algorithms in what becomes a duet of sorts with himself. Hession's flurries of single-stroke roll bursts around the kit are fed into the software, which reworks these into new, complex phrases and textures that Hession, in turn, responds to. This exchange of ideas between man and machine continues, with Hession introducing new timbres in the form of cymbal accents and a dome cymbal placed on the floor tom; these new timbres are interpreted by the algorithm and referenced in the phrases it returns. The interactions between Hession and his invisible duo partner are not dissimilar to how one might expect an improvising duet of two human players to respond to each other (aside from the physical impossibilities of replicating the material returned from the algorithm on the kit); they react and respond to the new material generated by each other, and there is something of a sensitivity between them in that they allow space for each other's ideas to be explored in more depth in more soloistic material.

2.2.5 – Eddie Prévost

Eddie Prévost is a British percussionist and drummer and has been a pioneer of British free improvisation since its emergence in the 1960s. He founded the group AMM in 1965 with saxophonist Lou Gare and guitarist Keith Rowe, which has remained a driving force in free improvisation since its establishment, with a line-up that has since also included such figures as Cornelius Cardew and John Tilbury, the latter of whom forming half of the main duo (with Prévost) that constitutes AMM today. He has worked with many other esteemed improvisers in his career, including Derek Bailey, John Butcher, John Edwards, Evan Parker, Rhodri Davies, Alan Wilkinson and Veryan Weston. As well as working with Cardew in AMM, Prévost also participated in Cardew's 'Scratch Orchestra' in the early 1970s. Prévost established Matchless Recordings and Publishing in 1979, through which a vast number of

recordings of performances by AMM, its members and other collaborators have been released. As well as regularly performing in venues in London (particularly often at Café OTO), he has set up and run a regular free improvisation workshop in London since 1999.

Jenkins (2004, p.275) acknowledges that "hearing American jazz drummers like Max Roach and Ed Blackwell completely changed [Prévost's] outlook and led him into improvisational music". Prévost's background in jazz drumming is a clear influence on his improvisatory language; his kit playing frequently takes on a free jazz aesthetic, with complex grooves and virtuosic solo passages that incorporate and elaborate on jazz patterns and figures.
An example of this is in a trio performance with Evan Parker and John Edwards (shuffleboil, 2011). Much of Prévost's material here has an apparent grounding in jazz drumming technique, with rudiment-based figures around the kit in his soloistic material analogous to traditional jazz drum solos, as well as searing, high-energy grooves loosely based around swing time, sustaining the driving forward motion in the ensemble's texture.

Of Prévost's improvisational vocabulary, Broomer (2015) recognises that "Prévost comes from jazz drumming, and his skills here are enormous …. but his interest in timbre and sounds both discreet (isolated taps) and continuous (bowed bells and cymbals) was unprecedented in the improvisatory traditions where drumming tended to be more exclusively rhythmic." Prévost (2018) exhibits this range of approaches in his album of solo improvisations, *Matching Mix*. Each individual improvisation largely focusses on a particular group of sounds or components of the kit; *Mixing & Match* (Prévost, 2018, track 1), for instance, almost entirely comprises cymbal textures and resonances produced using a bow and other rubbing and scraping techniques, whereas *Rotology* (Prévost, 2018, track 2) is entirely played on toms, snare drum and bass drum with yarn mallets, with driving bursts of rhythmic patterns spread across these, contrasted with more spacious explorations of timbres on individual drums.

Prévost has written three books reflecting in detail on his philosophy and experience as an improviser, and particularly in relation to his experience as a founding member of AMM. I have found that I have connected with a number of ideas he discusses in *No Sound is*

Innocent (Prévost, 1995) and identified a range principles and concepts of his that related to the practices of other improvisers I have studied in this project.

2.3 – How have I developed my improvisational practice?

Alongside investigating the current practice of a number of improvising drummers and percussionists, this project gave me the ideal opportunity in which to develop my own skill set and voice as an improvising drummer. I have taken on a number of extended techniques learned through attending performances, reviewing audio and video recordings and having one-to-one tuition from improvising drummers and from Philip Thomas, my supervisor.
I have found particular fascination with the use of resonance and friction in my improvisations, developing my dexterity to be able to juxtapose these textures against more quasi-rhythmic patterns.

I have been fortunate during the course of this project to have had a number of opportunities to use the improvisational skills I have learned in live performance. The two recitals given as part of this project have included extended solo improvisations, providing me with opportunities to demonstrate the development in my improvisational practice and put the technical skills I had learned into practice. I also had the opportunity early on in this project to perform to a wider audience in a postgraduate showcase concert, as well as improvising in ensembles of varying sizes (between 2-8 players) to accompany silent films ranging from short films to feature-length classics.

I set out to form a wide-ranging improvisatory vocabulary that drew together disparate elements of my knowledge and experience as a percussionist, developing an array of techniques and stylistic ideas that I could draw upon and fluently articulate in performance.

Wilmoth (2006) considers how improvisers' perceptions and use of extended techniques has developed, arguing that in recent decades, these techniques have become fundamental to their vocabularies compared to early improvisational practice in which extended techniques were considered peripheral to the standard modes of playing their instruments. The possibilities of extended techniques for percussion have fascinated me from an early stage

in my development as a percussionist, and in recent years I have been able to experiment with these and hone my skills to reliably achieve specific effects, both in composed works and free improvisation.

In terms of approaching improvisation specifically on the drum kit, Dean (1989, pp. 126-127) advises the following:

> In developing your improvisation on the drum kit it is important to approach afresh the nature and sounds of the various component parts. … It is equally important to rethink your ideas on co-ordination around the drum kit. You might try to play with just one hand; or with both hands but no feet; or to play with only one part of the kit (be it cymbals, drums, rims, wood parts, and so on), so that the typical drum kit combination timbre deriving from several different percussion instruments is avoided.

In my development as an improvising drummer, I have considered the drum kit as a collection of instruments akin to a multiple-percussion setup as well as bringing my experience of jazz drumming to this, looking to find ways of combining these approaches to the kit in my free improvisations. As Dean (1989, pp. 126-127) suggests, I have explored in detail the timbral possibilities attainable with each element of the kit, isolating these and then building up new combinations that eschew the standard techniques and stylistic conventions of drum kit playing in jazz and popular music settings. At the same time, I have also investigated free jazz and worked on ways of incorporating and extending my skills and knowledge of jazz drumming into my free improvisational practice, with the intention of developing the ability to bring together these approaches in my improvisations.

I have found, as I have developed my improvisational voice and vocabulary during this project, that among the techniques I have learned and developed, I have a particular tendency to favour those that make use of friction and resonance in some form, generally achieved through bowing, rubbing and scraping, and finding ways of altering and enhancing the resonance and harmonics of sustained sounds. Some specific techniques that I worked on extensively that became essential components of my vocabulary were the following:

- Bowing a cymbal (usually the crash or top hi-hat in open position) with one hand, and using a tamborim as resonator for this, holding the tamborim in the other hand and lightly pressing the head against the surface and edge of the cymbal. This amplified harmonics in the cymbal's resonance and a sort of 'wah' effect could be achieved by adjusting the angle of the tamborim against the cymbal.
- Use of 'superball' friction mallets on drums and cymbals; dragging these mallets across the surfaces of the instruments, drawing out resonances and harmonics. I found this to be particularly effective on the snare drum, where the timbre could be modulated by engaging and disengaging the snares on the resonant head whilst rubbing the mallet on the surface. Also, adjusting the position and pressure of my grip on the handle enabled me to vary the timbre further: holding the mallet firmly near the rubber ball and pressing into the surface of the drum or cymbal it was dragged upon would produce higher-pitched squeaks and resonances, whereas a looser grip at the opposite end of the handle would cause the ball to bounce around more, achieving an effect similar to a one-handed roll on drumheads that could be perpetuated by dragging the mallet in approximate circular and figure-of-eight motions across the heads.
- Using a 'guiro stick' (similar to a regular drum stick but with tight ridges along the shaft) around the kit – dragging this across the rims of the drums and edge of the closed hi-hat (occasionally simultaneously) producing a variety of rattling effects, as well as pressing one end of this stick against a drumhead and vigorously scraping the ridges with the rattan handle of another mallet, with the resonance of the drum amplifying the effects produced.
- Amongst the metals in my collection of auxiliary instruments, I made frequent use of an upturned 6" bell cymbal and a crotale, most often played resting on the head of the snare drum or floor tom. I experimented with different pitches of crotales to find a pitch that closely matched the tuning of the snare drum, so that when the crotale resting on the snare drum was struck, it would excite the snares when engaged, with beating effects occurring in the resonance where the pitch of the crotale was slightly different from the resonating frequency of the drum. This was further developed by positioning the upturned bell cymbal adjacent to the crotale on the drumhead and

striking both in quick succession – the difference between their frequencies and that of the drum's resonance generated a particularly complex effect.

- Having happened to pick up a surplus short wooden chopstick from a street food seller on a trip to China, this found its way into my collection of auxiliary instruments and mallets. I was particularly enthralled by the sounds achieved through resting this across the snare drum head and rim (in a similar position to a rim knock with a regular stick) and bowing the protruding end of the chopstick whilst holding the other end against the drumhead. Altering the bow pressure and position of the chopstick produced a range of squeaks and hisses, with the vibration of the chopstick amplified by the snare drum's resonance.

A question that I have considered in my preparations for solo improvisations is the extent to which improvisation can really be practised in advance, and how to ensure that one prevents oneself from being constrained in performance by having too many preconceived ideas. Bailey's (1993, p. 110) view is that "with solo improvisation…there are definite possibilities for practise. Not a pre-fixing of material nor preparing devices but something which deals with and, hopefully, can be expected to improve the ability to improvise". This has largely been the case in how I have developed and advanced my improvisational skills; my practice has had a particular focus on technique and timbral exploration, considering ways of blending sounds and transitioning between ideas, but avoiding thinking too specifically in terms of actual phrases and rhythmic ideas, so that these would remain spontaneous in my improvisations.

After giving my first solo improvisation performance in the showcase concert and my first recital for this project, reviewing the video footage from these along with feedback from my supervisor (and examiner for the recital) raised some questions and ideas to develop further in my improvisational practice. The first of these was improving my use of silence as a creative device in my improvisations (which I explore in further detail later in this thesis, in relation to performing Cage's *Composed Improvisation*); I found that I had a reluctance to use silence as a device within my improvised material and often hastily moved between ideas without leaving space for each to have coherence and impact. A related recommendation was that I should allow more resonant sounds enough time to speak

(particularly giving consideration to the performance space) before moving on, to avoid these being cut off or lost within the texture and reducing the sense of hurriedness as I move between ideas.

Philip Thomas suggested that I could focus alternative techniques for future improvisations, extending beyond my propensity for friction and resonance-based techniques and effects. I continued to work on developing a range of techniques in my practice, and in my extended improvisation concluding my final recital, I aimed to diversify my material to reflect this. I incorporated more free jazz inspired playing, with ideas loosely based around quasi-swing time, rudimentary fills around the kit and developing a dialogue between the snare and bass drum. I also made use of effects achieved through rapid rebounds of the sticks on various surfaces around the kit, and although my inclinations toward and enthusiasm for the friction and resonance-based effects eventually prevailed as the improvisation progressed, I felt I had significantly advanced these in my practice and introduced new sound worlds that extended beyond what I had previously explored.

I also worked on improving transitions between ideas in my improvisations. In early improvisations I tended towards a linear approach with one distinct idea following the next, so I aimed to improve the flow between these ideas through further exploration of combinations of techniques. This enabled me to gradually introduce new material and achieve greater levels of complexity and fluidity in adding new layers and transitioning between these.

One aspect of my playing that developed with tuition from Mark Sanders was the idea of improvisation being a live composition, with intent behind every gesture that forms part of a story the performer is telling. These ideas relate well to Prévost's (1995, p. 33) philosophy:

> No sound is innocent. Every utterance, rustle and nuance is pregnant with meaning. To make a meta-music is to hypothesise, to test every sound. To let a sound escape unnoticed before coming to know what it represents or can do is carelessness. Each aural emission can be unlocked to show its origins and intentions. No sound is innocent.

The idea that every sound I make in an improvisation must have intent was an important consideration, as taking this philosophy forward would improve the coherence of my material and move away from the 'rattling around' that Sanders referred to in one of my lessons with him; thinking compositionally about the material performed would give greater clarity to each idea, turning these into phrases that form part of the narrative and avoiding superfluous, inconsequential sounds that obscure and detract from the more substantial material (M. Sanders, personal communication, Feb 20, 2019). Lê Quan Ninh's (2014, p27) also emphasises that "every single touch on an instrument can weigh down sound and burden the ear", highlighting the importance of meaning and intention behind every action in improvisation.

Prévost (1995, p. 181) also contemplates the intense experience of improvisation: "Experimenting and improvising, the meta-musician makes and places sounds within a whirlpool of potentiality. Sounds meet and collide, they coalesce and combat and fade away. The nature of sound is transient. We learn from its existence and its death." I recognised a number of these ideas from my own experiences of performing improvisations; as soon as one decides that the improvisation has begun (this is perhaps before the first audible sound is even produced), one is committed to this act of live composition; a constant stream of ideas of new possible directions is calculated by the brain, changing radically within fractions of a second, based on the material that has come before and the sounds being produced at any given moment. Scarcely any sooner than a new possibility forms in the mind, a signal is sent to the muscles in a hand or a foot and the narrative develops as a new sound is introduced. The range of possible new directions is instantly modified and adapted in response to this impetus. This process continues for the duration of the improvisation – perhaps, as in the case of my recitals, the improviser needs to eventually find a way to conclude this narrative within an approximate allotted time, or perhaps this is entirely open, but the thought process turns to potential ways to conclude rather than to introduce new techniques and textures. Perhaps to resolve the narrative, the final material references earlier ideas with a clear, satisfying conclusion, or perhaps there is a sense of arriving at a destination very different from that in which the journey began; it all depends on what has happened on the way.

Chapter 3 – Case Studies

In this section, I examine four contemporary works for solo percussion that I have performed in recitals during this project, three of which are specifically written for the drum kit in various forms. These works are widely varied in their compositional approaches and the specifics of the writing for drum kit in each. I investigate how the interplay between composition and improvisation functions in each piece and the level to which this is apparent in the score, the instrumentation and arrangement of instruments in each work, the techniques the performer is required to execute, my reflections on the learning process and challenges involved and the ways in which I have either brought elements of my improvisatory practice into the piece or developed new skills to use in my improvisations inspired by the writing and techniques used in these works.

3.1 – Case study 1: John Cage – c/ Composed Improvisation for One-sided Drums with or without Jangles

John Cage's *c/ Composed Improvisation for One-sided Drums with or without Jangles* is one of three *Composed Improvisation* works published in 1990, the other two of which are written for snare drum and Steinberger bass guitar. I chose to study and perform this piece as although it is not specifically written for drum kit, it is a pertinent example of a solo work for percussion exhibiting an overt relationship between composition and improvisation.

The interplay of composition and improvisation is perhaps the most immediately apparent in this work out of my chosen case studies for this project. Rather than having a fully-notated score, Cage sets out detailed instructions for the performer to use chance operations to predetermine specific parameters of the improvisation: the timings of the three sections of the improvisation, number of events in each section, number of *icti* (individual attacks) in each event, number of favourite instruments that are to have jangles, the number of other instruments to have jangles, which events should be played on favourite instruments and which particular instrument to use for each event. Although Cage is meticulous in his prescribing of these parameters, the actual material performed remains free, shaped by the decisions made when preparing the piece.

In this work, the performer becomes a composer of sorts, as the improvisation is constructed by following Cage's meticulous instructions. When preparing this piece to perform, I considered it very important to adhere to the outcomes of my chance operations as closely as possible, to give a performance that accurately represented the results of these processes and how I responded to these in my improvisation. Andrews (2012) asserts that "to disallow the outcome of a chance operation, or to modify its results—even one of its outcomes, would compromise the process, for it would reintroduce the volitional activity of the artist, and consequently allow impulsive aesthetic decisions into the work." It would defeat the object of carrying out the chance operations to perform anything other than what the results of these yielded, so by adhering to these my performance would be a realisation faithful to the outcomes of the processes involved when preparing the work.

Given that the necessary decisions and chance operations are carried out in advance of the performance, the piece is more deliberate than exploratory and importance is placed upon making sounds that are as clear and focussed as possible; the main exploration of techniques and timbre is completed in the preparation of the work rather than in performance.

One of the significant challenges potentially arising, as was the case in the third section of my improvisation, is the possibility that the chance operations generate a high number of icti to be played in a short time, which may be very physically demanding (or even impossible). Should this be the case, Cage advises that these events should be recorded and played back at double speed, however, fortunately, the operations I completed when preparing my performance of the work yielded results that were physically possible to perform, with what became a rather energetic final section.

My realisation was as follows:

Part 1 (0’00”-5’45”**)**
Four events:
Event 1 – Lion’s roar - Not more than 51 icti
Event 2 – BSP Tamb - Not less than 41 icti
Event 3 – Lion’s roar - Not more than 17 icti
Event 4 – Bodhrán - Not less than 26 icti

Part 2 ((5’45”-7’15”) – (6’15”-7’00”)**)**
Three events:
Event 1 – Grover tamb - Not more than 50 icti
Event 2 – Small tom - Not less than 2 icti
Event 3 – Tamborim - Not more than 12 icti

Part 3 (7’00”-8’00”**)**
Five events:
Event 1 – Bodhrán - Not more than 1 ictus
Event 2 – Tamborim - Not less than 5 icti
Event 3 – Bodhrán - Not less than 51 icti
Event 4 – BSP Tamb - Not more than 48 icti
Event 5 – Lion’s Roar - Not less than 30 icti

Figure 1 – Realisation of decisions and chance operations for performance of Composed Improvisation

My decisions and chance operations resulted in a short final section requiring me to change drums four times and play 86 icti at the very least, all within a minute. I created a score for this section, notating an approximation of the material to perform to ensure that what I played would meet or exceed the requirements generated. In addition, I aimed to incorporate a range of timbres and techniques in this section, so included directions and notes for how to achieve these in my approximate score.

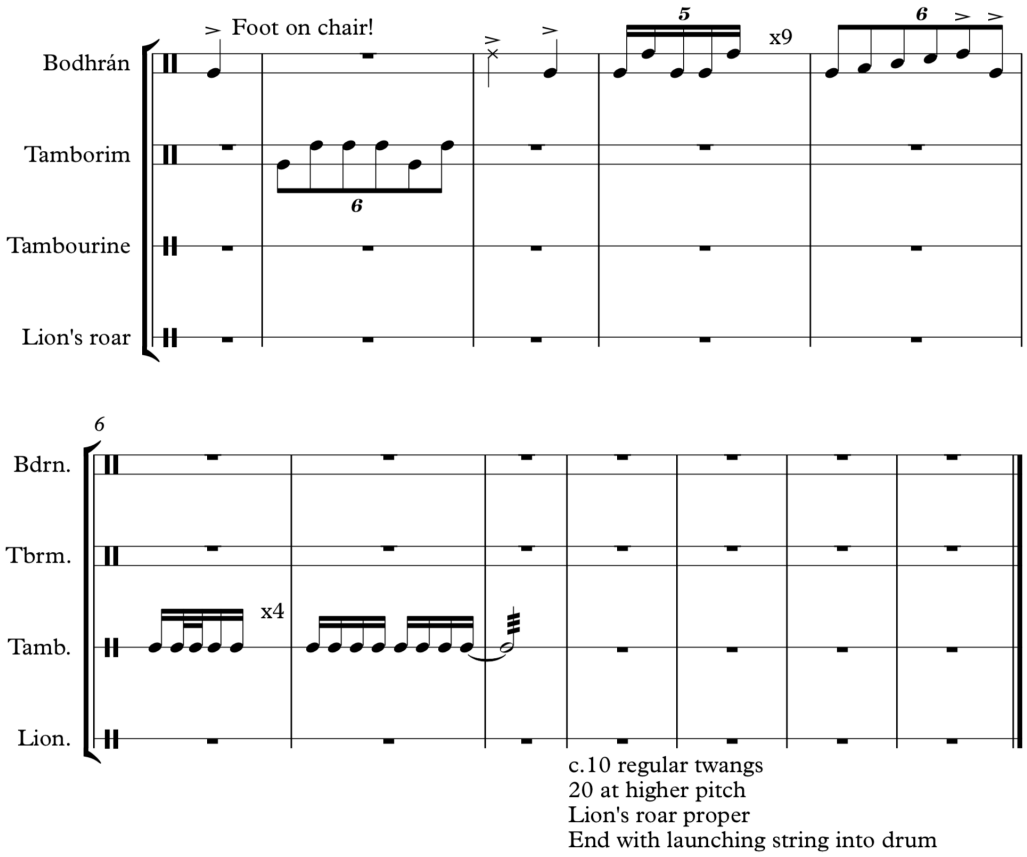

Figure 2 - Notation for final section of Composed Improvisation

Aside from my approximately-notated final section, the first two parts of the improvisation remained entirely free in terms of actual material performed, only governed by the rules set out by the chance operations. The only specification provided by Cage regarding what constitutes an ictus is that "Icti not perceptible separately (as during a roll) count as one ictus" (Cage, 1990), so the performer is only limited by their imagination in the range of sounds that may be produced with each drum for each attack, and by the chance operation outcomes in the number of sounds to produce in each event. I chose to incorporate traditional techniques of playing these instruments alongside more exploratory, extended techniques stretching beyond striking the head of each drum, developing a wide palette of timbres that I would be able to draw upon to achieve an imaginative improvisation that would be both sonically and visually engaging.

Having completed the chance operations required in the preparation of the piece, I set out the 'score' with the timings and instructions for each part of the improvisation (fig. 1). I had not become particularly well-accustomed to performing improvisations within specific time limit guidelines, so in early attempts of performing the work in rehearsal, I found it challenging to avoid either completing each event too rapidly and having time left over, or, conversely, having difficulty completing all events within the allotted time for particular sections. When reviewing my improvisations from earlier in the year, in my own practice and lessons in practice and lessons earlier in the year, I had found that I had an involuntary reluctance to use silence as a creative device, having a tendency to move from one idea to the next without leaving space for sounds to have as substantial an impact as they otherwise could have. I was gradually able to overcome this under guidance from Philip Thomas (my supervisor for this project) and referring back to advice given in a lesson from Mark Sanders, encouraging me to become unafraid to leave space and silence (occasionally longer pauses) in my improvisation and to carefully consider the gestures played, placing them purposefully within the inherent narrative of the improvisation without moving through my material too quickly. This would result in each section of the improvisation being better balanced, avoiding unnaturally long periods of silence (or, conversely, a sense of rushing to complete the required material within a time bracket) and effectively distributing carefully-selected sounds in the time available for each section, enhancing the impact and clarity of each of these.

A number of recordings of the three *Composed Improvisation* works are available for public viewing and listening, which were particularly useful for understanding others' approaches to preparing and performing this piece and the extent to which the widely varied possible outcomes of the chance operations could affect numerous aspects of the performance. Video recordings were more readily available than audio, and these were particularly useful to refer to in the early stages of preparing this work. Recordings of performances by Can Ünlüsoy (2016) and Michael Venti (2012) inspired my choices of instruments and made me consider further what could constitute *icti* beyond striking the drumhead, refreshing and expanding my knowledge of timbres and techniques achievable on frame drums using only the hands.

If I were to perform this piece again, I would be likely to make different selections for the instruments used, perhaps using a greater number of them to further broaden the range of sounds available for me to use in the improvisation. For another performance, I would need to carry out the chance operations again which would also likely yield very different results, resulting in a realisation that would be radically different to that which I performed in the recital for this project.

3.2 – Case study 2: Cat Hope – *Broken Approach*

Broken Approach was written in 2014 by Australian composer, instrumentalist and academic Cat Hope. It is one of two works for solo percussion written by Hope and is also one of two of her compositions for configurations of drum kit, the other of which is *Wolf at Harp*, for four drum kits played by four drummers of different style specialisms, reading from a graphic score.

The instrumentation for *Broken Approach* is 'Bass drum kit' with AM radios and wind-up mechanisms (wind-up toys and alarm clocks). The 'bass drum kit' that Hope has devised, in contrast to a standard drum kit, is centred around a concert bass drum and has standard drum kit components arranged around this, including toms and two ride cymbals (one of which should have sizzle, which can be achieved with rivets in the cymbal or placing a 'sizzler' on the cymbal).

As with many other works by Hope, *Broken Approach* is scored graphically, and the score is intended to run on an iPad using the ScorePlayer app. ScorePlayer, devised by Hope and Lindsay Vickery in association with the Decibel new music ensemble, enables graphic scores to scroll automatically at an adjustable rate for the performer(/s) to follow, with the facility to synchronise scrolling scores on multiple tablets across a network for ensemble works. In most cases, the score moves past a 'playhead' indicating the performer's position in the score during a performance. For *Broken Approach*, this 'playhead' line appears near the bottom of the display and the score moves vertically downwards, with the notation for each instrument arranged from left to right in order corresponding to the physical setup in which the performer is centrally situated.

Hope's graphic scoring gives the piece an inherent improvisatory nature; although Hope specifies the instruments to be used and when they should be played (including particular combinations of these), the material performed is, in a sense, free; for most of the piece, textures are created using each of the instruments when indicated, in the form of a roll or starting and stopping the sounds produced electronically or mechanically. Hope reverses the typical roles of rhythm and stasis in this work, creating contrasting moments of stasis by *introducing* a regular pulse to interrupt the forward motion of the prevailing arrhythmic material, rather than using arrhythmia as a means of dissolving forward rhythmic motion as perhaps would be more commonly expected. These 'static' sections are clearly defined both in the score and sonically; a brush is used to play a pulse at ♩ = 120 on the ride cymbal in one section and on one of the toms in the other (with the ongoing drones provided by the AM radios and vibrators on the bass drum and floor tom), the rigidity of this sharply contrasting against the predominant arrhythmic material constituting most of the piece.

In *Broken Approach,* Hope (2014) writes for both conventional and extended techniques across the drums and cymbals in the instrumentation, some techniques of which I was already familiar with through performing other contemporary percussion works and others of which were new to me, that I could then incorporate into my improvisatory vocabulary, further widening my collection of known timbres and effects I could draw upon in my improvisations.

I was familiar with using a bow on cymbals having been required to do this in other works and using this technique in improvisations previously, however I had not considered using this technique on a cymbal with a sizzle of any sort, so experimenting with this yielded new sonic possibilities to explore. In the context of this piece, found I needed to optimise my technique to ensure the bowed cymbal's resonance could be heard at the same time as the high frequency of the sizzling. It was also necessary to choose a cymbal that had a sufficiently textured surface to enable the effect created by scraping it with fingernails to be heard, which was another technique I had not been previously acquainted with.

I had not previously considered using the specified 'love egg'-type vibrators on the surfaces of drums, however, through using these in this piece, I discovered the timbral potential of

these from the low-frequency drone they produced and this gave me further ideas for how they could be used to create new sounds when improvising back on the kit that I am more accustomed to, for example using these on a snare drum with snares on or off for further variations in timbre. In the context of performing *Broken Approach*, it was necessary to devise solutions for smooth changes between using these and regular mallets to avoid cumbersome actions turning these on and off or unwanted noise by leaving them switched on when on a trap tray or similar when not in use during the piece. I felt I accomplished this reasonably well in my performance in that I was able to make these changes with little disruption to the coherence and flow of the piece, however this could be optimised further if I were to perform it again: for instance, using two separate wireless vibrators rather than two linked together with cables would avoid the tangling issues and movement restrictions that I had encountered and made adjustments for when preparing the piece.

The clocks, wind-up toys and AM radios added further complexity to the timbral palette in *Broken Approach*, as well as the practical considerations for using these in the context of performing the piece. I considered these to be unique to the identity of this piece and auxiliary to the idea of the drum kit (or 'bass drum kit') so have not used these in my improvisations following working on this piece. These components brought a certain playfulness and quirkiness to this piece, providing unique and distinct layers to the texture, punctuating the atmosphere otherwise largely dominated by low frequencies.

In the recital in which I performed this piece, one of the solo improvisations I also performed used the instrumentation and various extended techniques from *Broken Approach*. Having been inspired by the sound world Hope generates in this work, I used this as a starting point for my improvisation to follow my performance of this piece, tending towards a similar frequency spectrum and using a number of the techniques described above, and continuing to expand this using a range of mallets and extended techniques I was familiar with in addition to what is required in *Broken Approach*.
The unique arrangement of instruments in Hope's 'bass drum kit' brought new possibilities for my improvisation and enabled me to treat these in a manner different from when sitting behind the four-piece jazz kit I was most familiar with, in terms of techniques used and the potential for new sound combinations afforded by the unique disposition of the performer

and components in this setup. In particular, I have found I enjoy making a feature of friction and resonance in my improvisations, so the central concert bass drum and the tam-tam in this arrangement gave me the ideal canvases for exploring this on a larger scale than on the regular kit.

There are two accessible audio and video recordings of this piece, both performed by Vanessa Tomlinson (Hope, 2015, 2017). In advance of my preparation of this work, these recordings were particularly valuable as they provided an introduction to Hope's sound world and clarification of the instruments and techniques required in the piece. It was also useful to see an example of the 'bass drum kit' set up, as I could then visualise how to arrange each of the components for my own performance.

At points in this work, the performer's dexterity and ability to make smooth changes between mallets and instruments in the setup are challenged, an example of which can be found near the opening of the piece:

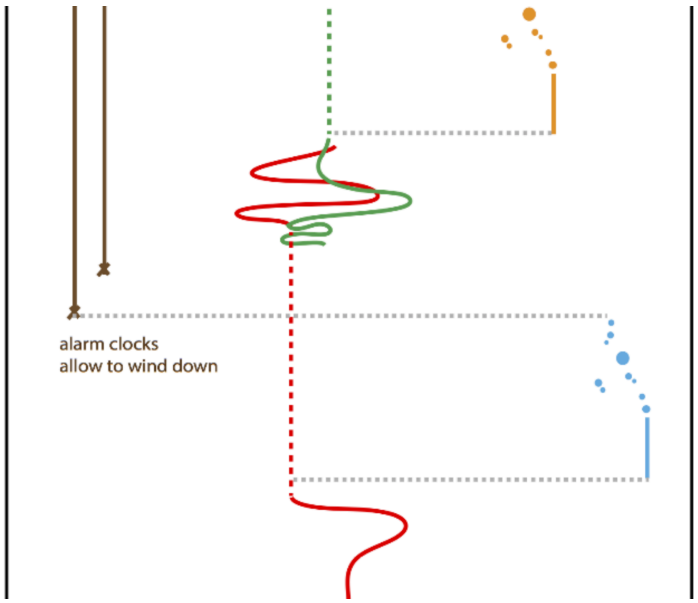

Figure 1 – Extract from score of Cat Hope's Broken Approach *illustrating quick changes between mallets and instruments*

In this extract, (reading from bottom to top) the performer moves from using one hand for the vibrator on the bass drum and the other playing the tam-tam with a mallet, immediately moving to setting the two alarm clocks, then using vibrators on the bass drum and floor tom simultaneously, and the right hand then playing on the second tom with the mallet again. Hope's (2015) recording of Tomlinson's performance was especially beneficial when

considering the practicalities of moving around the setup and negotiating these challenging changes between mallets and the other electronic and mechanical components in the piece; it aided and informed the decisions I needed to make in order to make these changes "smooth and seamless" as Hope (2014) indicates in her instructions.

3.3 – Case study 3: Sarah Nemtsov – *Study III*

Sarah Nemtsov's *Study III* is the third of three pieces comprising *Studies I-III* (2011), the other two of which are written for tambourine and tam-tam. Nemtsov has written for percussion in many of her other works, both solo and ensemble, and this is one of three of her solo percussion works. Her other work that makes a feature of the drum kit in some form is *Drummed Variation* for 'no drum kit' (a 'trash' kit comprising metal, plastic, cardboard and glass objects in place of regular drums) and Kaoss pad (an electronic effects unit manipulated live by a second performer).

As Nemtsov's solo percussion works are as yet unpublished, I contacted her directly to enquire as to whether these scores were available and she kindly sent me a collection of her unpublished works free of charge. *Study III* was of particular interest to me, as although the instrumentation required is a reduced rather than extended drum kit, I was fascinated by Nemtsov's writing using a variety of mallets and techniques in order to achieve a wide range of effects using this limited instrumentation, as well as the apparent juxtaposition of improvisatory and composed material in the piece.

The instrumentation for *Study III* is a slightly reduced standard drum kit, consisting of bass drum, snare drum, a medium tom, hi-hat and a cymbal. Nemtsov writes for a range of mallets: regular drumsticks, brushes, a bow, a 30cm plastic ruler, and various parts of the hand including fingernails. Nemtsov also indicates the different areas of the playing surfaces of the drums and cymbals to use, and by varying this along with the many different types of mallets, she further diversifies the timbral palette available from the smaller collection of instruments.

Nemtsov (2011) states that where the notation is 'free' (that is, using what she refers to as 'space-notation'), the material should be followed proportionally and according to the performer's musical inclinations. An example of this can be seen in figure 1, all of which is played with the hands. (Cymbals are notated on the top stave, with drums below). Much of this piece is written in this way, with a considerable degree of freedom being given to the performer. Without any time brackets specified in these sections, the exact way this material is executed can be at the performer's discretion at the point of performance.

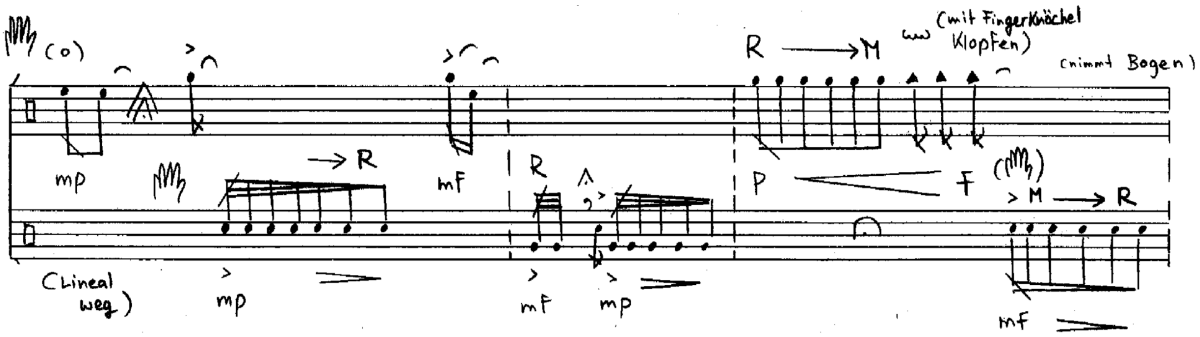

Figure 1 – Example of 'space-notation' in Study III *(Nemtsov, 2011, p. 4)*

Nemtsov (2011) specifies that although the more strictly rhythmically notated sections do not have time signatures indicated, the rhythms should be precisely adhered to, in a clear contrast to the free, spatially-notated sections. Although metre is seldom indicated, Nemtsov often provides a metronome mark for these rhythmical sections, such as in figure 2 – the last bar in this extract introduces a funk-shuffle groove that continues to the end of the piece.

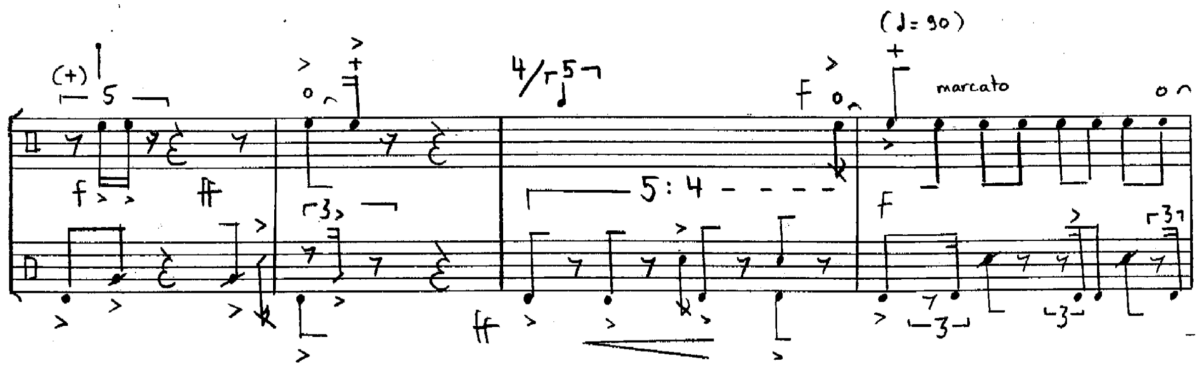

Figure 2 – Example of rhythmic notation in Study III *(Nemtsov, 2011, p. 6)*

This is a clear example of pulse and arrhythmia being used in the opposite manner to that of Cat Hope's *Broken Approach* (2014). In *Study III*, Nemtsov (2011) breaks up the forward

motion of her rhythmic writing by interspersing these with the freer, spacious and more improvisatory sections that instil more of a sense of stasis, focussing more on textures and timbral exploration than precise rhythmical material.

I was already familiar with many of the techniques that Nemtsov writes for in this piece, but there were various extensions of these that I had previously been unfamiliar with that, with practice, I learned to execute and was able to incorporate into my improvisatory skill set.

I had not previously considered using (or been required to use) a plastic ruler in a percussive context, so this required some work to become accustomed to using it in this way and achieving the effects Nemtsov notates, including bouncing the ruler against the rims of the drums for a rattling effect and snapping it against the heads of the drums by pulling back one end and releasing it onto the drum. While the effects obtained using the ruler were certainly unique and added a certain playfulness to the piece, I had found these difficult to consistently execute and did not continue to incorporate this into my improvisatory skill set. I achieved these effects with reasonable success when performing *Study III* in my recital but would work on honing this particular technique further if I were to perform the work again.

Nemtsov requires the performer to achieve 'flageolet' tones on the cymbal, bowing with one hand and muting in various places on the cymbal surface with the other to draw out different harmonics. This was not something I had previously come across either in compositions for percussion or in developing my improvisational technical skills, and required a considerable amount of work to develop this technique and achieve the effect required. It was challenging to reach a point where results were consistent, as any small changes in bow pressure or the position of either hand would have unpredictable results on the sound. In performance, I found I was able to achieve this effect at some points but not others, so if I were to perform this again, I would practise this further to achieve more consistent results.

I found I was able to apply skills I had developed in improvisational practice to achieve many of the timbres and effects in this piece, as well as being inspired by Nemtsov's writing to develop these existing skills further and reconsider the timbral possibilities of these. An

example of this was with the use of the bow; I had already developed a level of proficiency in using this on cymbals, and Nemtsov takes this further by combining bowing the hi-hat with using the pedal to vary the distance between the two cymbals, creating looser and tighter sizzle effects as the cymbals are brought close to each other whilst resonating. Also, in my improvisations I had been reluctant to use the wood of the bow percussively for fear of causing any damage, however Nemtsov calls for the bow to be used in this way, so with careful handling I explored this further and found I was able to achieve another range of timbres I had not previously investigated.

There are, as yet, no recordings of *Studies I-III* available to the public, either as audio or video. This meant that I had to develop my own interpretations of techniques that were new to me in this piece and carefully study challenging rhythmic material to be able to accurately construct and perform the grooves and patterns written across the kit. The lack of existing recordings enabled me to interpret the directions in the piece without any preconceived ideas of 'correct' or 'accepted' ways of executing these, bringing a sense of freedom as well as the challenge of studying and realising the complex rhythmic content.

3.4 – Case study 4: Alex Harker – *The Kinetics of Resonance*

The Kinetics of Resonance was written in 2007 by British composer, programmer and academic Alexander Harker. It is his only work for solo drum kit, however he has written for percussion and drum kit in a number of his ensemble works. It was the composer himself that brought this piece to my attention after attending a solo drum kit improvisation that I performed as part of a postgraduate showcase concert at a relatively early stage of this project. On further discussion, he recommended the piece to me having identified a number of similarities between the techniques and timbres I explored in my improvisation and that which he had written for in this piece, and upon my receipt and first reading of the score, these similarities were immediately apparent. From identifying the parallels between Harker's writing and my improvisatory tendencies and the close relationship between composition and improvisation evident in the score, it was clear that examining, learning and performing this work would be highly relevant to this project.

The instrumentation for this piece is based around the standard four-piece jazz kit, consisting of bass drum, rack and floor toms, snare drum, hi-hat, crash and ride cymbals and extending this to include sizzle and bell cymbals and an additional 'dome' or hand cymbal. In terms of mallets, the piece requires regular drumsticks, soft sticks, brushes and the hands, which are often used in varying combinations across the kit. By writing for a wide range of extended techniques across all of these elements and giving the performer the facility to interact with the kit in their own unique manner, the timbral palette achievable in the piece is almost limitless, extended further through the potential resultant timbres of techniques combined simultaneously.

The Kinetics of Resonance was particularly pertinent to my study with the explicit juxtaposition of notated material with directions for improvisation often in the form of text and/or graphic scoring within the regular stave. Harker uses a range of types of scoring and notation in this work, including standard drum kit notation, graphic scoring, spatial notation and text instructions, often combining these to give further detail to the directions and techniques written in the score and to indicate where improvised textures are to be combined with the notated rhythmic material. The score is also diagrammatic in parts, to indicate form and structure for particular sections and illustrate transitions from one state to another. His writing includes complex combinations of precise rhythmic material and 'free' textural exploration, often simultaneously. This requires a high level of dexterity and limb independence around the kit, as well as an ability to engage the contrasting skills of reading kit notation and free improvisation simultaneously. At the opening of the piece, for example, a snare and bass drum groove in 5/4 metre underpins quasi-graphically scored improvised cymbal textures without a consistent pulse:

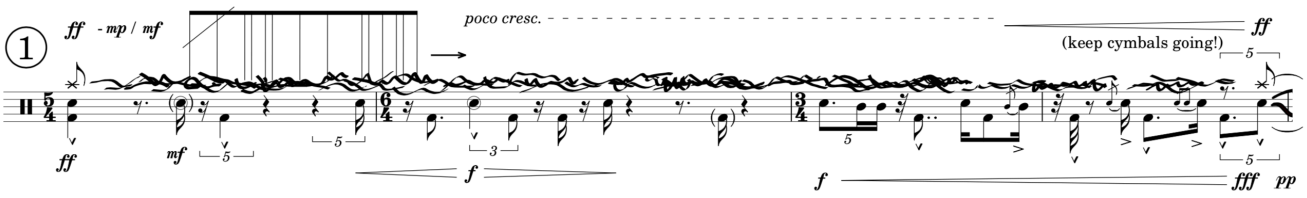

Figure 1 – b1-4 of *The Kinetics of Resonance* (Harker, 2009) displaying combined stave and graphic notation

I initially found it particularly challenging to maintain a sense of groove and pulse in the notated bass and snare drum parts whilst continuing the arrhythmic texture across the cymbals, so I needed to further develop the necessary limb independencies to emphasise the driving rhythm and free texture in parallel. This tension between grooves and freeness recurs throughout the piece, often layered in a similar fashion to Figure 1, so by developing this skill further it became less problematic to maintain these two opposing playing styles concurrently.

One technique described by Harker in this work that was new to me and of particular significance was using the hi-hat and snare drum as resonators for the 'dome' or small hand cymbal, finding ways of altering the position the cymbal to draw out different harmonics in the resonance. It was a challenge to consistently achieve the desired effects, however with practice and careful control it was possible to hone this technique and more reliably produce the resonance required. Having taken a particular interest in friction and resonance in my improvisations, I was keen to persevere with this technique in order to effectively execute it in the context of the piece and incorporate it into my improvisatory vocabulary.

I was keen to retain spontaneity in the improvised sections of this work, but at the same time avoid losing clarity of the structure of the piece, so I needed to make some decisions prior to the performance to outline the material that I would be likely to play in these sections. Having this initial plan would enable me to perform the improvised material with a greater sense of coherence and direction, without feeling overwhelmed in performance by the many possibilities provided in the score for material to use as the basis for improvisation.

There is one audio recording of this piece available for online listening, of a performance by Dimitris Tasoudis (Harker, 2007). This was particularly useful in the early stages of preparing the piece, as it provided a valuable introduction into the sound world Harker creates and aided in my understanding of some of the technical demands of the piece. Given that a large proportion of the piece is written as frameworks for improvisatory 'free' playing, it became difficult at points to follow the score exactly when listening, however the recording was highly valuable as an example of how the score could be interpreted and stimulated my own

considerations of the interpretative decisions I would make for my own realisation of the work.

The relationship between composition and improvisation is unique in this piece compared to the other works I have studied. Although the other works have had an element of 'freeness' in the writing, through graphic scoring and/or spatial notation for instance, *The Kinetics of Resonance* gives the performer an even greater level of freedom with the inclusion of fully improvised sections and layering improvised textures in parallel with notated rhythmic content. This enables the performer's own stylistic inclinations to influence and individualise their performance of this work, which is ultimately Harker's intention. This piece, therefore, gave me the ideal opportunity to express my own voice as an improviser within it, with Harker's writing also feeding back into the development of my improvisatory practice; a unique symbiosis of sorts can be identified between composition and improvisation in this work, with each contributing to and benefiting from the other.

A significant question that has arisen in my discussion of the interplay between composition and improvisation, both in the specific works studies and in this broader context, is that of the hierarchy between composer and performer. Prévost (1995, p. 59) asserts:

> Composers remain in the frame of music-making even in absentia: this is their grip on the future. The musician is always the man (or woman) of the moment, hired to interpret or recreate the ideas that the composer consigned, by way of marks, to paper. An improvisation, by contrast, demands total creative involvement by the musician, with no reference to any 'composed' formulation. … Free improvisation, with no restraints beyond those imposed by/in the moment of performance, must reflect only the concerns of the participants, if it is to retain its aesthetic veracity.

Certainly, I agree that this is largely true of fully-notated works, where, on a fundamental level, the composer gives instructions to the performer by means of a score of some form. Much of the creative process has already been completed by the composer in writing the piece before it is brought to life by the performer. Of course, performers will interpret the

score in their own individual manner, but this is an extension of a creative process that the composer has initiated, that significantly develops in advance of the performance.
The very nature of improvisation, in contrast, is that the creative process is happening 'in the moment' – there are no preconceived ideas or plans for what will or will not happen, there is no kind of predetermined structure or form – the performer takes ownership of the entire creative process, which takes place in real time from the moment the improvisation begins. The performer engages in an act of live composition whereby the audience experiences the entire creative process happening before them, rather than the realisation of material and ideas that have been studied, interpreted and rehearsed in advance.

How, then, does the composer-performer relationship change when free improvisation is incorporated into a composed work? Are these improvisations really 'free', especially if the performer must improvise within a stylistic framework set out by the composer? For compositions in which there is a significant amount of freedom for the performer to improvise alongside fully-notated material (either entirely freely or within some form of framework, perhaps with sketched ideas to incorporate or use as a starting point), does the composer still have overall control in that the performer follows their instructions, or do the composer and performer meet on some figurative middle ground, whereby the creative responsibility is shared and both have a strong (perhaps even equal) influence on the material performed?

Earle Brown (n.d., cited in Bailey, 1993) discusses with Derek Bailey these questions of how control is shared between composer and performers in relation to his String Quartet (1965). Brown is keen that the collective individuality and collaboration of the ensemble is projected in the performance of the work, guided by his notations and directions in the score and, for improvised material, adhering to limitations when specified: "In some cases the technique, the loudness and/or the rhythm may be 'free' for the individual musician to determine; where these elements are given they must be observed" (Brown, n.d., cited in Bailey, 1993, p. 61). Regarding his philosophy in respect of whether he considers himself to have overall influence on the material performed, Brown (n.d., cited in Bailey, 1993, p. 62) remarks "I think so…but what I say is that I am extending an invitation to the musicians to take part with me". This idea of mutual participation involving both the composer and

performer was particularly relevant in the works I studied and performed, so I have considered and addressed this further with reference to some of these case studies.

Harker (2009) wrote *The Kinetics of Resonance* for percussionist and drummer Dimitrios Tasoudis to perform, using Tasoudis's improvisations as the basis of much of the material in the piece. It is clear from Harker's preface to the work that his intention is for the performer's individual voice and ideas to be projected within the work: "each new performer is expected to bring their own sound and approach to the score…The real challenge for the performer is to negotiate the notated and improvised elements of the score so as to create a coherent musical whole" (Harker, 2009). I was fortunate in that I was able to work with Harker directly in my preparation of the piece, exchanging ideas regarding improvisation within the piece and deepening my understanding of his intentions for each section of the work. From my experience of preparing this piece with Harker's input, the relationship between composer and performer took on an exceptionally collaborative nature, but even without personal communication with Harker in the preparation of this work, it is certainly apparent that the score gives many opportunities for interpretation and improvisation to allow room for the performer's own ideas and improvisational identity to be expressed, interspersed and at times combined with the detailed notated material in the work. The performer, therefore, has an important role in the creative process that takes place both in advance of and during the performance. In a similar manner to Brown (n.d., cited in Bailey, 1993, p. 62), Harker invites the performer to participate in the situation he establishes, bringing their own identity to the piece in their improvisation and interpretation of his directions in the score.

The relationship between composer and performer is unique in Cage's *Composed Improvisation*. There are effectively limitless possibilities for what *could* be performed, although constraints come into play when the chance operations have been completed, governing a number of aspects of the improvisation – and Cage sets out additional instructions regarding these. The composer-performer conundrum takes on a new complexity for this work: Cage, as composer, sets out the framework for the improvisation; the performer carries out the necessary operations to set the parameters for the improvisation; the performer then improvises within the limits of these parameters,

adhering to Cage's additional directions. The performer not only follows Cage's directions, but is required to carry out chance operations to generate a specific set of instructions to adhere to, as well as making creative decisions in real-time as they improvise. In my experience of preparing and performing this piece, it seemed as though Cage still has a strong influence on the material performed, but I also took on the role of a composer of sorts as I determined the parameters for the improvisation and considered what would actually be played in performance based on these. The material I performed was ultimately improvised, but I created a mostly text-based 'score' to follow in my performance that would aid my adherence to the limits set for the improvisation by means of chance operations and even notated the final section to comply with the challenging conditions generated by my chance operation outcomes. It could be argued that there is little creativity required in the task of setting the parameters for the improvisation – these are, after all, largely governed by chance rather than the performer's inclinations for this piece – it is Cage that has put the framework in place and the performer generates rules within the limits of this. However, the performer ultimately has control over the material performed, and their part in the creative process really begins with making decisions based on the outcomes of their chance operations that will facilitate a realisation that is a faithful representation of these outcomes. A major part of the creative process is, of course, reserved for the improvisation itself, in which the material performed is shaped (but not wholly dictated) by the operations and decisions completed in preparation.

The nature of the relationship between composer and performer is clearly rather variable and can only really be examined in depth in the context of specific case studies. Additionally, one performer's perception of this hierarchy and relationship may be quite different from that of another performer in relation to the same piece, and these perceptions will be influenced by the performers' own experiences of improvisation.
I believe that it is possible for free improvisation to coexist with notated material in a composition, and have often found that, when frameworks and outlines for improvisation have been given, this has stimulated new ideas for my improvisations both within the pieces and extending into my free improvisations. However, the question of hierarchy and the nature of the relationship between composer and performer in works incorporating free

improvisation remains a conundrum, that, as yet, is not possible to comprehensively resolve – it can only really be accurately assessed with respect to specific examples of such works.

Performing works such as Nemtsov's *Study III* and Harker's *The Kinetics of Resonance* also required me to consider my learning process when approaching complex contemporary works. Clarinettist Anthony Pay (cited in Bailey, 1993, pp. 67-68) explains his approach as a non-improvisor to learning contemporary works with complex notation:

> You can, with some modern music, start off and say: 'I'm not going to pay a tremendous amount of attention to the notational aspects of it, but initially I'm going to decide what the music is about, the gestures – and language – the sort of thing that, if you are improvising, you have to deal with. Now, I tend, when I'm approaching a modern score, to start off by trying to get, as accurately as I can, what [the composer]'s actually put down on paper. And that can be…very constricting. If you are trying to play seven against nine or something like that then you can be involved in thoughts which aren't specifically musical ones.

When first faced with a complex work to learn and perform, in a similar vein to that which Pay describes, I certainly employ something of an improvisational approach when first playing through the piece to attain a sense of the ideas and form involved, using a combination of sight-reading and improvisatory skills to make educated estimates of complex phrases. I will then, at a later stage, return to the particularly challenging passages requiring more detailed analysis, finding logical ways to deconstruct these. Often, in the case of works for drum kit, this will involve isolating individual parts for each hand and foot as necessary, analysing the notation and becoming comfortable playing each component at a slow tempo, then gradually bringing the whole passage together adding one part at a time, improving fluency and clarity as I become more secure with repetition, and work toward the intended tempo for performance. This links back to my discussion in section 1.4.3, relating to Schick's (1994) account of learning and performing Ferneyhough's *Bone Alphabet*; understanding how he approached Ferneyhough's highly complex polyrhythmic writing inspired me in my response to the notational challenges presented in the works I performed, particularly in the case of Nemtsov and Harker's pieces.

Chapter 4 – Conclusion

Throughout the course of this project, I have successfully developed my improvisatory skills as a drummer by learning from active practitioners, both directly and through the study of recorded performances featuring these players. I have enjoyed having many opportunities to perform at various stages of this project, demonstrating the development in my improvisatory skillset and also in the performance of complex contemporary works for percussion and drum kit.

There are clear relationships between composition and improvisation in the works that I have studied, whereby the composer has encouraged improvisatory practices to be brought into the piece by the performer; this may be implicit through the use of graphic scoring and space-time notation, or in other cases, actively encouraged by the composer through providing frameworks for improvisation within the piece.

It is clear that there is a vast array of techniques that improvisers have developed that continues to evolve, with composers finding new ways of notating these and such techniques becoming accepted into common practice in contemporary percussion writing and performance, achieving ever broader and more complex ranges of timbres, the possibilities of which are multiplied through the combining of these across the drum kit.

Humans for many hundreds of years have questioned and explored the boundaries of the possibilities achievable with musical instruments, and, indeed, of what can be considered a musical instrument itself. With this continuing exploratory mentality in improvisation, this will further inform contemporary composition and the profound relationship between these practices will continue to evolve.

References

Anderson, I. (2002). Jazz outside the Marketplace: Free Improvisation and Nonprofit Sponsorship of the Arts, 1965-1980. *American Music, 20*(2), 131-167. doi:10.2307/1350138

Andrews, I. (2012). *Chance, non-intention and process*. Retrieved from https://ian-andrews.org/texts/Chance_Non-intention_Process.pdf

Bailey, D. (2015). *No 22 [Ping]* performed by Ensemble Anomaly. Bates Mill Photographic Studio, Huddersfield. [21 November, 2015].

Bailey, D. (1993). *Improvisation: its nature and practice in music* (2nd ed.). New York: Da Capo Press.

Bark!. (2016). *Improvised set* performed by Bark!. Phipps Concert Hall, Huddersfield. [19 February 2016].

Barre, T. (2015). *Beyond jazz: plink, plonk and scratch: the golden age of free music in London 1966-72* [Kindle version]. Retrieved from https://www.amazon.co.uk/dp/B00Y0IRDTE/

Braasch, J. (2011). A cybernetic model approach for free jazz improvisations. *Kybernetes, 40*(7/8), 984-994. doi:10.1108/03684921111160214

Broomer, S. (2015). *Ezz-thetics*. Retrieved from http://www.pointofdeparture.org/archives/PoD-52/PoD52Ezz-thetics.html

Brand, S. G., Beresford, S., Edwards, J. & Sanders, M. (2019). *All will be said, all to do again*. UK: Regardless. Retrieved from https://sarahgailbrand.bandcamp.com/album/all-will-be-said-all-to-do-again

Cage, J. (1990). *c Composed improvisation for one-sided drums with or without jangles*. New York: Henmar Press.

Dean, R. T. (1989). *Creative improvisation: jazz, contemporary music and beyond: how to develop techniques of improvisation for any musical context*. Milton Keynes: Open University Press.

Davis, S. (n.d.). *New Sonic Adventures in Drum-Set Performance*. Retrieved from https://www.academia.edu/11772230/New_Sonic_Adventures_in_Drum-Set_Performance

Drenching, T. H. F. (2013). *THF Drenching: That Irregular Galvanic Twitch A review of Bark! live at St Margaret's Church, Manchester Saturday 15-6-2013*. Retrieved from https://bark-trio.com/live-15613-review/

Drum kit. (n.d.) In *Cambridge advanced learner's dictionary & thesaurus*. Retrieved from https://dictionary.cambridge.org/dictionary/english/drum-kit

Gräwe, G. & Sanders, M. (2017). *Affretando* [CD-R]. London: Confront Recordings.

Harker, A. J. (2009). *The Kinetics of Resonance*. Unpublished score.

Harker, A. J. (2007). *The Kinetics of Resonance* [Recorded by Dimitris Tasoudis]. [Audio file]. Retrieved from http://www.alexanderjharker.co.uk/music/TKOR.mp3

Hession, P. (2014). *Paul Hession (percussion) Doug Van Nort (live algorithms)* [Video file]. Retrieved from https://www.youtube.com/watch?v=G1KqiiO5Nqg

Hession, P., Fell, S.H., & Wharf, C. (2002). Enter, Leave. On *Improvabilly* [Streaming audio]. Suffolk: Bruce's Fingers. Retrieved from https://open.spotify.com/track/1NcxrYk1dr0AOIGzGt1fFu?si=XF5HBAXKSYyz3d7hDhXglQ

Hope, C. (2017). Broken approach [Recorded by V. Tomlinson]. On *Ephemeral Rivers*. [CD]. Switzerland: Hat Hut.

Hope, C. (2015, March 25). *Broken Approach* [Video file]. Retrieved from https://vimeo.com/123194672

Hope, C. (2014). *Broken Approach*. Frankfurt: Material Press.

Ingebrigtsen, L. (2017). *Brand/Sanders Duo @ Kongsberg Jazz 2017* [Video file]. Retrieved from https://www.youtube.com/watch?v=19AhslPhrzU

Jenkins, T. S. (2004). *Free jazz and free improvisation: an encyclopedia*. London: Westport.

Kjær, J. (2017). *THIS IS WHERE YOU SEE ME* performed by J. Kjær, M. De Saram, A. Eldridge, J. Edwards, S. Stoll & M. Sanders. Bates Mill Photographic Studio, Huddersfield. [21 November, 2017].

Lê Quan Ninh. (2014). *Improvising Freely: the ABCs of an Experience*. (K. Houle, Trans.). Ontario: PSGuelph. (Original work published 2010).

Marclay, C. (2018). *Screen Play* performed by J. Butcher, M. Sanders & S. Beresford. Bates Mill Blending Shed, Huddersfield. [22 November 2018].

Nemtsov, S. (2011). *Studies I-III*. Unpublished score.

Nichols, K. A. (2012). *Important works for solo drum set as a multiple percussion instrument* (Doctoral essay). Retrieved from https://ir.uiowa.edu/cgi/viewcontent.cgi?article=3099&context=etd

Peterson, L. (2006). *Music and the creative spirit : Innovators in jazz, improvisation, and the avant garde*. US: Scarecrow Press.

Piekut, B. (2014). Indeterminacy, free improvisation, and the mixed avant-garde: experimental music in London, 1965–1975. *Journal of the American Musicological Society*, *67*(3), 769-824. doi:10.1525/jams.2014.67.3.769

Prévost, E. (2018). *Matching Mix*. London: Earshots. Retrieved from https://earshots.bandcamp.com/album/matching-mix

Prévost, E. (1995). *No sound is innocent*. Harlow: Copula.

Richard Scott's Lightning Ensemble. (2017). *Hyperpunkt* [CD]. Berlin: Sound Anatomy.

Rutherford, P. (2015). *Quasi-Mode III* performed by Ensemble Anomaly. Bates Mill Photographic Studio, Huddersfield. [21 November, 2015].

Schick, S. (1994). Developing an interpretive context: learning Brian Ferneyhough's Bone Alphabet. *Perspectives of New Music, 32*(1), 132-153. doi:10.2307/833159

shuffleboil. (2011, July 10). *Mark Sanders Solo @ UNWHITSTABLE 2.7.11* [Video file]. Retrieved from https://www.youtube.com/watch?v=Negiy0JFznE

shuffleboil. (2011, June 22). *Steve Noble @ Boat-ting, London, 20.6.11* [Video file]. Retrieved from https://www.youtube.com/watch?v=aG6Qno4R1Lw

shuffleboil. (2011, June 3). *Parker/Edwards/Prévost @ the Network Theatre, London 30.5.11* [Video file]. Retrieved from https://www.youtube.com/watch?v=rhv0Dzv0-eA

shuffleboil. (2011, May 4). *Steve Noble Solo set @ Cafe Oto 13/03/11* [Video file]. Retrieved from https://www.youtube.com/watch?v=fJj95aynr4c

Stubley, P. (2017). *European Free Improvisation*. Retrieved from http://www.efi.group.shef.ac.uk

Toop, D. (2016). *Into the maelstrom: music, improvisation and the dream of freedom before 1970*. New York: Bloomsbury Academic.

Ünlüsoy, C. (2016, January 20). *John Cage - Composed Improvisation for One Sided Drums With or Without Jangles* [Video file]. Retrieved from https://www.youtube.com/watch?v=Psl7wPfr-xs

Unseen Recordings. (2016, July 8). *Julie Kjær 3* [Video file]. Retrieved from https://www.youtube.com/watch?v=J_SJYigTQhk

Watson, B. (2004). *Derek Bailey and the story of free improvisation*. London: Verso.

Wilmoth, C. (2006). *Dusted features [Scrapes and Hisses: Extended Techniques in Improvised Music]*. Retrieved from http://www.dustedmagazine.com/features/468

Venti, M. (2012, April 16). *John Cage - Composed Improvisation for One-Sided Drums with or without Jangles* [Video file]. Retrieved from https://www.youtube.com/watch?v=-NJ4bzguPFs