Intuition and reason: decision making in compositional processes

by

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Declaration of originality

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Neil John Carey

29th November 2017
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Technical Commentary

Introduction

My research question, *Can I differentiate between reasoned and intuitive decision making in my own compositional processes? Has my increasingly conscious application of this changed my compositional output?*, is addressed by this technical commentary, which provides a guide to my change in approach to compositional decision-making throughout the duration of my PhD. My music is discussed to show how I have consciously moved the decision making from being very reasoned to more intuitive. I have organised the commentary by defining seven themes to provide focus to different aspects of the project, including this introduction and the conclusion. I also discuss, as part of the introduction, the concepts of intuition and reason by taking Thomas Kuhn's work on scientific revolutions and building a metaphor between intuitive scientific practice and decisions in my compositional processes. I also further reinforce the metaphor through the work of Miranda Fricker, Karlheinz Stockhausen and Ulla Pohjannoro. Of the remaining five sections of the commentary; serialism is where I contextualise my initial training and the starting point for my PhD; political, where some of the stimuli for my collaboration with poet and playwright Phillip Dalziel are explained; appropriation, which charts the early stages of my project, providing a contrasting direction to my eventual research question; military, which explores my unlikely (given that I only served for six years in the Regular Army, but have maintained part-time contact for the best part of thirty years), but enduring relationship with the British Army and that
relationship’s influence on some of my music, and finally, reasoning and intuition, charts the increasing, intentional use of intuition in my compositional processes.

The first piece discussed, which is the first piece composed as part of my PhD, is the most reasoned. The final piece in my portfolio involves a conscious use of intuitive decision making. The commentary also contextualises my music with both contemporary music and other relevant stimuli from older pieces or traditions. The commentary is not an analysis, but rather a window into a process. Where relevant, I also discuss extra musical stimuli such as the politics of remembrance in the United Kingdom and my own military experiences.

My teachers in the initial phase of my training were Ian McQueen (1982-1985), Christopher Brown (1985-1988), Edward Gregson (1987-1988) and Brian Elias (1992-1994). Ian McQueen studied by correspondence with Benjamin Britten as a very young man. He studied with John Lambert and Jeremy Dale Roberts at the Royal College of Music in the early 1970’s and with Per Nørgård at the Royal Jutland Academy of Music, as the 1976 Mendelssohn scholar. 1982 saw Ian working as composer in residence for an enlightened Wigan education authority in a joint collaboration with North West Arts. Happily and purely coincidentally, I began composition lessons with Ian after initial workshop sessions for all A level music students at Leigh College (coincidentally, this VI form college was formed from the VI form from Leigh Grammar School which both Peter Maxwell Davies and Roger Smalley attended; indeed my soon-to-retire history teacher taught both composers, and shared stories about them with me when he realised
my compositional ambitions). These lessons allowed me (being, until this point, a brass band trombonist) to be immediately exposed to a post-war, conservatoire-influenced aesthetic which heavily influenced my composition for the next thirty years. Ian is the most influential composition teacher I have worked with. There are two reasons for this; firstly, other than a love for music and a very narrow Associated Board and O level syllabus informed education, I had few reference points for new music. Ian’s musical world was new, exotic and exciting. Secondly, his influences and training, particularly with John Lambert, who’s philosophy of acceptance and open-mindedness in his approach to teaching, ensured that Ian delivered a non-judgemental approach to criticising my initial efforts. Ian also trained me to consider the reason for every note in my compositions. Firstly, I had to be able to justify every pitch, rhythm, texture and timbre choice, a pitch or indeed series of pitches could not exist in isolation from the grand design of the whole. Secondly, every note had to have a performance direction, it was not acceptable to leave a note “bare”. This undoubtedly contributed to my singularly poietic view of the compositional process at that time. By considering the direction at single note level within a piece left little chance for any esthetic view of the process, there being little regard for the performer, let alone the audience. Ian developed this approach from his training by correspondence with Benjamin Britten. Whilst taking some considerable pleasure out of continuing this tradition with the way I teach my own GCSE and A Level students, I also realise that this training made me predisposed to reasoned decision making. The concept of selecting pitches or rhythms for purely aesthetic reasons was alien and not part of my methodology.
My subsequent training with Christopher Brown and Edward Gregson at the Royal Academy of Music between 1985 and 1988 and Brian Elias at Goldsmiths’ College between 1992 and 1994 ensured that I was firmly established in the post-war modernism handed down through the conservatoire tradition. These are my reasoned routes to my approach to the compositional process during and after my initial training. The influence of the modernist movement was subtle, yet inescapable. As a finalist in the 1987 Manson composition prize at the Royal Academy of Music, my piece was performed by the Academy’s Manson Ensemble and adjudicated as part of that year’s Messiaen festival. The adjudicator was Tristan Murail. My piece was not placed and upon seeking feedback, Murail criticised a passage employing extended use of a regular dotted quaver/semi-quaver rhythm saying that “people did not compose like that anymore”, which I understood to mean that my music was not “modern” enough for him. This again contributed to signposting me to a more reasoned methodology, which, at the time, I understood would lead me to a more “modern” approach and therefore would lead to me composing more successful music. Some twenty years after my Academy training, I met with Christopher Brown whose music is far from the modernism of the 1960’s-80’s. Chris was bitter about the criticism his music endured from modernists during the 1960’s, 70’s and 80’s. He is a composer in the lyrical and vocal English tradition. He studied at Kings College, Cambridge having previously been a chorister at Westminster Abbey and studied composition with Lennox Berkley at the Royal Academy of Music and with Boris Blacher in Berlin. Chris never imposed any aesthetic during lessons, encouraging me to pursue my own reasoned compositional process which
happily, coincided, with the culture of the time, even though the aesthetic was removed from Chris’ own composition style.

Toward the end of my training at the Royal Academy of Music I undertook some casual lessons with Edward Gregson. Eddie studied at the RAM at a similar time to Chris, taking composition lessons with Alan Bush. Eddie had a great deal of initial success writing music for brass bands. As a youngster, this is where I first encountered his music so, at the time of my lessons with him, I was familiar with that aspect of his output. I do know that his brass band piece *Dances and Arias* influenced a piece for organ and wind band I composed in 1988, just after I left the RAM, for the Band of the Royal Yeomanry. My piece, titled *Fanfare and Aria*, being commissioned to be performed in Einsiedeln Cathedral in Switzerland was heavily influenced by Eddie’s style. It is a testament to Ian McQueen’s influence and the prevailing attitude of the times that two teachers not explicitly in the modernist tradition, over the three years of my training, did not try to persuade (or, indeed attempt to persuade) me to deviate from my path. I was happy composing music in a reasoned way up to, and including, the first piece written as part of my PhD project, discussed below. This thesis shows my journey; consolidating and improving my conservatoire training (as my music still retains many reasoned features), then, exploring a more intuitive approach to my compositional processes.
Thomas Kuhn

Kuhn initially considers the writing of Jean Piaget,¹ who charted the development of children in the 1930’s. This could be useful as a simplified metaphor for paradigm shift as it explains the transformative stages of human development. Kuhn’s earlier, post- fellowship publications investigate two areas; one is how some of them deal with the “metaphysic in creative scientific research”.² Others look at the way new theories are assimilated by scientists committed to older more incompatible theories. “Others examine the way in which the experimental bases of a new theory are accumulated and assimilated by men committed to an incompatible older theory”.³ Kuhn has named this the “emergence” of a new discovery.

Kuhn’s definition of paradigm is “These I take to be universally recognised scientific achievements that for a time provide model problems and solutions to a community of practitioners”.⁴ My metaphor or parallel here is the patterning (or conventional understanding of the relationship between musical elements) of pitches, rhythms, texture/timbre and harmony evident in a musical tradition that is understood by any community of composer, performer or listener. These potential patterns of combinations of musical elements provide models for the solutions to the problems encountered during the compositional process (using

¹ The Child’s Conception of Causuality, 1930; Les notions de mouvement et de vitesse chez l’enfant, 1946
Kuhn’s language from the above definition). For example, a classical period patterning of musical elements (paradigm) provided the solution to composing music in the 18th and 19th centuries. This is a patterning provided by tradition and, over time, has been assimilated into our musical culture (as a “norm” or yardstick). The musical “emergence” of a new theory or paradigm can be seen as a micro or macro event. An example of this could be a composer conforming or not conforming, to a self-determined paradigm or an established musical methodology perhaps defying that established paradigm. Examples might be; West Coast Hip Hop out of the previously established East Coast, or, the popularity of Minimalism emerging from an established post-war Modernist aesthetic, or, indeed the emergence of a post-modern culture.

Kuhn’s fundamental objective is to “urge a change in the perception and evaluation of familiar data”. He achieves this through the consideration of physical science, although he suggests that the conclusions should not just be confined to this, but should also take into account the discipline(s) of biological science. Other issues to consider are; “...the manner in which anomalies, or violations of expectation, attract the increasing attention of a scientific community......”; “....the crisis that may be induced by repeated failure to make an anomaly conform.................each scientific revolution alters the historical perspective of the community that experiences it....”. How does a composer “evaluate familiar data”? Then, a consideration of an anomaly of that “data”

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can/should/may lead to a “repeated failure to make the anomaly conform”. Then, how does the composer bring about a possible change in the “historical perspective” that he/she experiences? These questions assume the continuing metaphor of musical patterning representing scientific paradigm. The composer is either choosing his/her “familiar data”8 or is working unconsciously with it. In reality, it will be both, with a composer choosing a patterning that is established within the culture. The melody/harmony/musical idea will be a result of the composer focusing/fixating on an anomaly9 from the “familiar data”. These anomalies, in time, become “familiar data” (following the metaphor, become part of the culture and therefore intuitive), ready for a community of composers to exploit further anomalies. This cycle is applied to any patterning chosen by the composer and the degrees in which the anomaly is exploited and established within the “world” of the piece of music, is what I seek to measure my own music against to chart my reasoned and intuitive decision making.

“If science is the constellation of facts, theories, and methods collected in current texts, then scientists are the men who, successfully or not, have striven to contribute one or another element to that particular constellation.”10 The musical equivalent of facts, theories and methods are the techniques deployed by composers, who constantly add to the entity (music; a particular composition or genre or movement). If music is the combination of the development of melody, harmony, rhythm and texture across the existing repertoire, then composers are

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8 The combination of musical elements most familiar to the composer within their experiences, training and culture
9 I define this as a distinct break from combinations of familiar musical elements. This could be unexpected dissonance, syncopation or consonance or any other example of a musical element breaking away from the expected at both macro and micro levels.
10 Kuhn, from the Introduction to The Structure of Scientific Revolutions pg 2
the men/women who have striven to understand and master these elements, contributing a small (or significant) development of these elements to their genre or movement.

Continuing with Kuhn, he suggests this piecemeal approach to scientific development which can cause difficulties when considering questions such as "When was oxygen discovered?". "Who first conceived of energy conservation?" As the method is incremental, these questions cause problems. It could be that these are "the wrong sort of questions to ask". What is the difference between myth and scientific theory? If out-of-date theories (beliefs) are called "......myths, then myths can be produced by the same sorts of methods and held for the same sorts of reasons that now led to scientific knowledge". If the myths are to be called science, then it must be accepted that science has included bodies of belief quite incompatible with current scientific thought and practice. Therefore, out-of-date theories are not un-scientific because they have been discarded. "The same historical research that displays the difficulties in isolating individual inventions and discoveries gives ground for profound doubts about the cumulative process through which these individual contributions to science were thought to have been compounded". Some compositional choices will be cumulative, with composers building upon techniques developed before.

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Therefore, questions such as who invented tonality?, are as Kuhn suggests, the wrong type of questions. Can we trace musical development in a linear way or do we see revolutionary changes at points in time? These musical revolutions can be seen in a micro and macro way. A small revolution could be an inspired melody, using conventional patterning that can be traced in a linear way (although the intuition that generates the compositional decisions will not be within the linear paradigm, necessarily); a big revolution could be the development of atonality, although there is a linear element to that. Schoenberg's system uses the 12 chromatic pitches. Deployment of rhythm, texture, and dynamics could be said to be taken from out-of-date practices in that context.

Kuhn outlines his theory of scientific revolution by using the example of a piece of scientific equipment that repeatedly does not work in its intended way. This creates an anomaly that cannot be aligned with professional expectation. This is one example of how normal science does not conform to expectations. When the anomalies can no longer be explained or ignored, extraordinary investigations then ensure that scientists lead to a new way of practising the science. “The extraordinary episodes in which that shift of professional commitment occurs are the ones known......as scientific revolutions”. “They are the tradition-shattering complements to the tradition-bound activity of normal science” 16 After all attempts to resolve an impasse have failed, a new way that creates new patterning is eventually established by the scientific community.

Kuhn highlights some well-known examples of scientific revolutions. Copernicus, Newton, Lavoisier and Einstein; each scientist rejected a time honoured theory in favour of another theory incompatible with the original.

“Each of them necessitated the community’s rejection of one time-honoured scientific theory in favour of another incompatible with it”. Kuhn also states that the revolutions in thought affect small scientific communities, “other episodes that were not so obviously revolutionary” can contain revolutions of the same value and significance as those that affect large communities. “For the smaller group affected by them, Maxwell’s equations were as revolutionary as Einstein’s, and they were resisted accordingly”. “A new theory is seldom an increment of what is already known. Its assimilation requires reconstruction of prior theory and re-evaluation of prior fact”17.

This, leads to the route to normal science. This is of interest immediately as it suggests a charting of the route to the established paradigm. Parallels with music could be: the establishment of Western “classical” patterning...Monteverdi (Vespers of 1610, L’Orfeo)...Bach (48 Preludes and Fugues, Cantatas) ....etc. Kuhn is defining normal science as research based upon one or more past scientific achievements. These achievements need to be recognised by different scientific communities as supplying the basis for its further practice. Today, these theories exist in science text books, both advanced and basic. They present the traditionally regarded theories and experiments. Before these textbooks were created, the ancient classics of science served the same purpose; Aristotle’s Physica, Ptolemy’s Almagest, Newton’s Principia and Opticks, Franklin’s

Electricity, Lavisher’s Chemistry and Lyell’s Geology. These defined the research problems and methods for generations of scientists. They shared two essential characteristics; the achievement was of such importance that it developed a dedicated group of adherents, and it was open ended enough to allow problems to exist for the new group of practitioners to solve. This is essentially Kuhn’s definition of a paradigm shift; an achievement that breaks convention and leaves further questions to be answered. Paradigms are named and students of science will study and become very familiar with them. Accepted examples are; “Ptolemaic astronomy” (or “Copernican”), “Aristotelian dynamics” (or “Newtonian”), “corpuscular optics (or “wave optics”). The study of these (and other more specialised paradigms) is what makes a scientist accepted within his/her community. That community will practice science according to the same rules and standards. This consensus is the prerequisite for normal science. I draw a parallel here to established musical patterning within any style or genre. Even though science works towards particular goals; that may not be the case with music. It is still possible to state that any musical paradigm can be assimilated by its practitioners who, with peer support and cooperation, can work within that paradigm, breaking few rules, creating music that will be the equivalent of the Newtonian universe: predictable. As Kuhn is here establishing a patterning to react against, so too, will the successful musician strive to exploit the second part of the definition, to attempt to answer the further questions.
Miranda Fricker

What is the intuition of musical decision? What is the opposite of intuitive musical decision? Miranda Fricker writes that everyday thinking often regards reason and intuition as being sharply contrasted or even opposed methods of thought.\(^\text{18}\) Can we substitute reason for a constructivist approach to composition, or slavish adherence to a genre or style defining paradigm, and intuition, a reaction against this? Fricker argues that intuition plays an important part within human reasoning. Intuition is to acquire knowledge without the use of reason, to gain knowledge from feelings rather than facts, to understand instinctively rather than consciously. Instinct being an inclination towards a particular behaviour rather than a learned response. Intuitive, reflective thought or action as opposed to meta-cognitive processing. This could be extended to composing music without knowingly applying reason through either subconscious, or self taught musical convention and patterning. Where do the two part? Which part of any piece of music is derived completely from reason?\(^\text{19}\) Which part of the music is derived completely without reference to reason? Which part of the music is influenced by assimilated reason from any constructivist approach (for example, the habitual use of a serial technique that becomes second nature)? Which part of the music is influenced by culturally assimilated reason? Which part of the music is a combination of two or more?

Intuition and reasoning can be presented as\(^\text{20}\):


\(^{19}\) Reason here being defined as the non-intuitive part of the compositional process. Music derived from slavish adherence to system (a pitch series) or culturally embedded patterning (12 bar blues for example)

<table>
<thead>
<tr>
<th><strong>Intuition System One</strong></th>
<th><strong>Reasoning System Two</strong></th>
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<tbody>
<tr>
<td>Fast</td>
<td>Slow</td>
</tr>
<tr>
<td>Parallel</td>
<td>Serial</td>
</tr>
<tr>
<td>Automatic</td>
<td>Controlled</td>
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<td>Effortless</td>
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<td>Associative</td>
<td>Rule-governed</td>
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<tr>
<td>Slow-learning</td>
<td>Flexible</td>
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<td>Emotional</td>
<td>Neutral</td>
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“The more precise and far-reaching [the] paradigm is, the more sensitive an indicator it provides of anomaly and hence of an occasion for paradigm change\(^{21}\). I am drawing a parallel between the “precise and far-reaching paradigm” and a mechanistic pre-compositional process. Also, a further parallel showing that intuitive composition can be termed as “paradigm changing” work. These changes (in science, called “revolutionary intuitions” as referenced previously) are usually triggered in the minds of scientists by some “personal quirk or chance event”. These “revolutionary intuitions” do not infect the characterisation of intuition. “That the genius of intuition is subject to change does not entail that matters of justification are also subject to change”. Kuhn is not “trying to make science rest on unanalysable individual intuitions rather than on logic and law”.\(^{22}\) Fricker’s work here reinforces my earlier metaphor/parallel derived from Kuhn’s theories.

This allows me not only to reinforce the metaphor between scientific paradigm, reason, logic, law and the pre-compositional process., but also, between intuition

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and the composer’s departure from process. The conception of intuition presents itself as a “mode of hypothesis formation”, the ability to see a new problem as being like an old one. Some language associated with intuition; “follow one’s nose”, “act on a hunch”, “smell a rat”, “feel it in ones bones” is useful to further the musical parallel. Intuition depends on experience. Scientists are able to intuitively solve new problems as a result of experience in solving previous questions. The previous knowledge generates a capacity to generate educated hunches with regard to the subject matter. Pre-compositional processes create the capacity to generate the intuition in composition. In the same way that cultural patterning in classical composition allows capacity to diverge from the established and expected. How much of Mozart’s application of patterning (ie established composition techniques of the time) is intuition? “.....if Bartok and Schoenberg composed fewer works than Mozart, it was not necessarily because they were less gifted than he, but because the style they employed required them to make many more conscious, time-consuming decisions”.

Kuhn does not suggest that the intuitive mode of thought is just thinly rational thought executed subconsciously. Intuition is presented as being a sometimes rational, cognitive process. Also, it explains a capacity to draw subconsciously upon past experience. “......the relation between a set of past experiences and any resultant intuition is an evidential relation”. I intend to relate this to my own music. How does the music relate to past experience? This could be applied in

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both macro and micro level. The “experience” of the pre-compositional process at a micro level is the “experience” as a musician (ie out of the immediate reference of the piece being composed) that affects the intuitive compositional choice over the following reason (the pre-compositional patterning). What beliefs should we hold in response to it? “...intuitions tend to be under-determined by the evidence”.26 This is referring to common under-determination, which is where it remains within the perspective of the practitioner and appeals to the contrast between when a given hypothesis is fully determined by the evidence and cases where it is not. String theory is an example where scientists can make a “leap” rather than a “step” from the available data to the hypothesis. This results in a theory that is un-substantiated by normal science27. String theory and under-determination, where the hypothesis is not, and cannot yet be supported by scientific data could be a metaphor for sections of the composition that cannot directly be related to either pre-compositional processes or stylistically determined patterning.

**Coenen on Stockhausen**

Alcedo Coenen’s paper Stockhausen's Paradigm: A Survey of His Theories28 provides a contrasting application of the paradigm and paradigm shift model to my own. Much of Stockhausen's work on music theory is presented to support his own composition, rather than being presented as theory. Stockhausen said

26 *Stanford Encyclopaedia of Philosophy*. plato.stanford.edu/entries/scientific-underdetermination
“My texts are always comments on the music.......”\textsuperscript{29} Stockhausen's thinking is presented as a musical paradigm, not as theory, but, as a broader viewpoint in which philosophy, theory and composition have place. Coenen looks at Stockhausen's theories in two ways:

1. The paradigm model
2. Analysis structured to the paradigm model

In three sections:

1. Fundamental assumptions (aesthetics)
2. Images (models)
3. Working methods (techniques)

\textbf{The paradigm model}

Stockhausen considers the basics of Kuhn's theory

Paradigm (normal science)

Paradigm shift (revolution - not rational - the beliefs of scientists are changed during these revolutions).

Stockhausen uses Kuhn's theory to create four global aspects

\textsuperscript{29} Stockhuesen, K. (1970-77). Meine Texte sin dimmer Kommentare zur Musik, Vol 4
Values
Models
Generalisations
Exemplars

These are exemplified in terms of music by Coenen

**Values**
In musical paradigms values concern what the music is, or should be. What the fundamental entities of music are. How music should be performed or listened to. What music means in everyday life.

**Models**
Metaphors or images; in music found in analogies with the other art forms. Examples used are 19th Century music to be considered “dramatic”. Baroque music as a rhetorical model, music as a spoken discourse. By analysing the models you can understand the composer's compositional problems and his technical solutions.

**Generalisations**
Musical paradigms contain generalisations in compositional techniques; like a dissonance must be resolved for the tonal paradigm and all 12 notes carry equal value and weight for the atonal paradigm.
**Exemplars**

Canonic pieces of music – Bach’s *Preludes and Fugues*; Beethoven’s Symphonies, Wagner Ring Cycle etc.. Musicians learn them and keep them in their minds as examples.

Stockhausen’s theories here contrast with my own approach as I am considering in small detail, intuition or reason applied to the deployment of individual compositional decisions.

**Pohjannoro**

In contrast to my investigation regarding my individual compositional decisions, Ulla Pohjannoro’s investigation is based upon conversations with a composer reflecting on his own processes. There is also score scrutiny, but this only contributes one element of her investigation. Recent trends in compositional research have given increasing attention to implicit, imaginative and inspirational aspects of composition. Methods for this research are: interviews and manuscript scrutiny. Findings show the saliency of the composers germinal ideas into the compositional process. *NB decision making around the germinal ideas?*

Two core procedures

1. Compositional thinking represented in actual artefacts i.e. manuscripts

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2. “Intuitive aspirations entered the conscious mind and subsequently opened themselves up for reflective processes”

I am considering the intuitive part of this process, the first procedure, where the composer’s thinking is represented in a tangible form could be part of reasoned decision making, where as the second procedure enters the intuitive spectrum. Intuitive and reflective ideation (idea generation) is continuously monitored by metacognitive (constantly changing thinking) function. Dynamics of problem accumulation; how did the composer decide not to decide?

Pohjannoro’s research is about working with and researching the composers, my method is only concerned with looking at my music. This study is tracing the development and composition of a large scale piece of music from initial ideas to the completed score. The study attempts to “…..respect the compositional process as a singular and unpredictable episode….”. A conscious effort was made in her research to minimise misinformation created by over reliance on verbal accounts, particularly in relation to the creative process. The two types of processing (thinking) in compositional decision making is defined as Intuitive and Reflective. Words to describe each process are:

Known as the “duel process framework”

**Intuitive**: fast, unintentional, automatic, effortless, capable of dealing with large amounts of information simultaneously.

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Reflection: slow, deliberate, sequential, laborious, limited in its processing capability

The device by which the composer selects between the two types of processing is known as “metacognition”, the processes that determine which process is used are: monitoring, controlling, conflict detection. Compositional thinking, is thus a fluctuation between intuitive and reflective processing, this is controlled by the metacognitive processes and can be either unintentional (type 1) or purposive (type 2). My investigation is really an attempt to define degrees of the type 1 processing described here, degrees of intuitive processing rather than the reflective processing.

Serialism; October 2010

As the majority of my pre-PhD output relied upon different incarnations of serial technique, I will contextualise my approach to the technique that dominated my compositional decision making. George Perle\textsuperscript{32} relates atonality and the processes adopted to achieve atonality as extremely reasoned. The desire to liberate the twelve notes of the scale from diatonic function rejected the previously culturally embedded elements of music such as the seven tone scale, triadic harmony and key centres. This, in some instances, can minimise intuitive thought from the decision making process; at least with regard to pitch and harmony, ensuring a more reasoned approach. Perle also argues that composers’ working within an atonal system can take nothing for granted other

than the limit of the twelve pitches (or in the case of a non-serial system such as Hauer’s “tropes”, groups of pitches). Certainly with regard to pitch and rhythm this helps set the scene for the start of my PhD project, as I was very much working within this framework at the start of my programme of study. So, October 2010 (the first piece composed as part of my PhD project) shows hardly any progression from pre-compositional patterning. There is little intuitive application to the way the material develops from the original pitch and rhythm cell plans. The music is reasoned, as it is composed in accordance with a pre-compositional process. All pitch and rhythmic patterns can be related to the pre-compositional processes; the four treatments of the material are also predetermined, particularly from ideas generated from listening to Beethoven’s first symphony. I established my paradigm by closely reflecting on concepts from Beethoven’s music and then did not shift away from the established patterning. The music represents my 1980's training (as stated above) and provided me with a starting point. See examples 1, 2 and 3.

Example 1

The pitch organisation has this tetra chord as its starting point. This is the organised in the piece, using and experimenting with proxemics, alter interval distances and distances between repetitions.
Example 2

Separate, or combinations of rhythm cells used to develop the macro-rhythm in the first section

Example 3

An example of the systematic deployment of the tetra-chord and rhythm cells
The Anglo-Australian composer Roger Smalley’s early working with serialism provides an example of how my very reasoned decision making in October 2010 could be developed into a more intuitive approach. Christopher Mark\textsuperscript{33} writes that Smalley took to heart a comment by Maxwell Davies early in his career. A composer should not “get bogged down in musical technique for its own sake” but “allow the music to go where it wants” [pg 22]. In an early work from 1961, *3 Poems of Walter De La Mare*, Smalley frequently re-orders the twelve note series for primarily harmonic reasons. In the second song, *The Horseman*, the re-ordering allows Smalley to emphasise certain repeated intervals. This form of manipulation led to an embedded technique of characterising a passage of music (by re-ordering pitches within his system) by one or two interval types. This shows an interest in using a pitch centred approach to composition favoured in Berg and late Stravinsky. This less reasoned practice within a more reasoned methodology is particularly evident in Smalley’s *Symphony*.\textsuperscript{34} He writes that the structure of the *Symphony* “evolved quite intuitively during the course of composition”\textsuperscript{35}.

Smalley, in an interview with Andrew Ford in 1993\textsuperscript{36}, reflects on the twentieth century revolutions in music. The stylistic difference between Mozart and Brahms is minimal. Early twentieth century composers experienced a total revolution of style, with them developing and perhaps later rejecting two or even three different approaches. Composers’ rejected tonality, withdrew early works and declared themselves to be serial composers. Smalley’s generation of

\textsuperscript{33} Mark, C. (2012). Roger Smalley: A Case Study of Late Twentieth Century Composition. Ashgate
\textsuperscript{34} Composed 1979-1980
\textsuperscript{35} Smalley, R. Programme notes for *Symphony*
composer started from that point; “........we were serialists from the word go. The sort of music that was attractive to me to begin with......not because it was serial but because it was what I liked........”. This serves as a useful and pertinent clarification of my own position in 2010; the culmination of training started in the early 1980’s with Ian McQueen ensured that I styled myself a serialist. This is my benchmark.

**Political**

Both *Along the silent streets* and *Memorial Suite for Military Band* are political, the song cycle explicitly so, with Phill Dalziel’s references to the Bosnian war being openly explored in the text. The wind band piece is not explicitly political; it does celebrate remembrance as well as directing thought to the perceived politicisation of the act of remembrance in our present society. Paul Dessau’s *Die Verurteilung des Lukulles* (1949-51) is a Brecht collaboration that provides a contrast to my approach. Dessau’s eclectic, politicised compositional style contrasts with the more sympathetic style of the second movement of my wind band piece. Although there is quasi political motivation in the composition of the piece, it is less technically “hard” than the “routinely deployed twelve tone method in works carrying an explicit socialist text” (pg 48) that Paul Dessau uses in some of his compositions. Dessau’s setting of Brecht’s libretto in *Die Verurteilung des Lukulles* would appear to be a reasoned use of a serial technique which, in this instance, reflected his and other East German composers’ desire to

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37 As previously mentioned in the introduction Phillip Dalziel is a poet, playwright, theatre director and educator. He provided text for three of the pieces in my portfolio. He also directed and designed the lighting for the performance of the culmination of the composition portfolio *A Child of Bethlehem*.

“reconcile taboo (to the communist State) compositional methods with their understanding of socialism”. (pg 48) In contrast, the political message in Phill Dalziel’s words is much less obvious, although distinct. My increasingly less reasoned and consciously intuitive approach to setting Phill’s words, and indeed, the two surrounding movements of the military band piece, reflect the more subtle political message, that of the politicising of remembrance. In an article written for the Centre for Global Policy, Farrah Sheikh\(^{39}\) writes “Remembrance serves as an act of national performativity of mourning but glosses over many key issues of today. Questions remain as to why are armed forces used to further government agendas, which do not benefit peace in the long term”. Also, she questions the very reason for public acts of remembrance. “The act of remembering is in itself politicised as the nation selectively recalls the fallen in our distant and recent past”. The message in this piece essentially mirrors this, but is less explicitly political. The music is more intuitive than reasoned with the intuitive decision making reflecting the celebratory aspect of the piece. In the introduction to the score of *Memorial Suite for Military Band* I indicate potential reasons for the politisation of remembrance. The British Army (and indeed, Royal Navy and Royal Air Force) is now much less localised in its recruitment, resulting in a detachment of the general population from the personalisation of acts of remembrance. In 2020, the army will number less than the prison population, so people will be more likely to know someone in prison than a soldier. This detachment allows other emotions more closely related to patriotism, or, in more extreme instances nationalism, to be associated with acts of remembrance. Sheikh writes about selective acts of remembrance; it would be

convenient for a government to encourage remembrance emotions driven by patriotism to distract from feelings of grief generated by casualties of either ill-thought participation in conflicts or conflicts where participants are not properly equipped. Since composing the piece, the image of the poppy has been appropriated by some far right groups to further their views, particularly via social media. This is an ultimate extension of the de-personalisation I write about. I continue to write about my involvement in a service at the new Royal Anglian Regiment memorial at the Imperial War Museum, Duxford. That service, and subsequent services (I play there every year with the band) again, to me, make remembrance personal within the regimental family. The contrast between the political and the reality at Duxford made me write the piece.\textsuperscript{40}

\textbf{ Appropriation }

My original PhD proposal was centred around using music from the Beethoven symphonies to provide inspiration for the music in my portfolio. The desire was not to use the Beethoven music in any direct way; for example, quotation (including direct appropriation such as direct Ivesian quotation), or even use of pitch or harmonic patterns. Rather, to take abstract ideas from the symphonies to deploy to my pieces in some way. One of the surviving ideas was for the portfolio to lead to the composition of a chamber opera based on the story of the Coventry Carol. I had the idea and a draft libretto some eight years before starting the PhD. Although the subsequent journey regarding compositional process was not formulated, the idea of the portfolio culminating with an

\footnotesize{\textsuperscript{40} Please see the introduction to the score for \textit{Memorial Suite for Military Band}}
extended musical theatre piece was. The research question was formulated out of the journey between my first piece and this opera. One of my initial inspirations for my starting point was Brian Elias’ Variations (1987), the structure was constructed in a reasoned way exactly following the structure of Beethoven’s 32 variations in C minor. Elias writes in a programme note:

These Variations are based on the concept of Beethoven’s 32 variations in C Minor. In Beethoven’s work, all the variations are eight bars long, without any changes of tempi or time signature. Each variation is complete in itself, but the variations are carefully grouped and juxtaposed to have a cumulative effect. His individual variations are always very clearly connected with the original theme, both melodically and harmonically. Rather than occupying himself solely with decoration of the original melody, Beethoven's concern was with piano figuration and technique.

In following the principles Beethoven created in this work, I have attempted to concern myself with the same preoccupations; by using clearly audible motifs that would permit me to concentrate on writing for the instrument, and by using short, sharply defined phrases (always of eight bars) to build up a larger structure.

The work is in three main sections, and follows the outline given below:

Theme and Variations 1-6 : Introduction

Variations 7-20 : First 'Movement'

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Variations 21-34: Second 'Movement'

Variations 35-49: Third 'Movement'

Coda

The quiet 49th variation states in simple chords the harmonies of the theme and goes straight into the Coda. As in the Beethoven, the last variation and coda finally abandoning the eight bar phrasing that has applied throughout. The work should be performed without any breaks.

Taking my lead from this concept, I wanted to use structural and less definable concepts such as mood and contrasts, not allowing Beethoven’s music to directly influence the melodic, harmonic or rhythmical character of my music. The basis of my original PhD proposal was to take the form of an abstract composition technique analysis of the nine Beethoven symphonies and subsequent implementation of those techniques into my own music. My original composition training was firmly rooted in the mid 1980’s conservatoire tradition, allowing me to style myself a modernist, relying on serial systems to generate pitch as discussed earlier.

I intended to use concepts from the Beethoven symphonies as a stimulus for new serial techniques. The first piece I composed as part of my PhD is a piano trio titled October 2010 (the title represents the date I started my PhD) the piece deriving its main technical inspiration from the first movement of Beethoven’s Symphony No 1 in C Major op 21. My interest in this piece is the way in which
Beethoven generates momentum through harmony and structure at specific points in the first movement.

1. The structure of the slow opening of the piece can be mapped to the slow opening of the first movement of the symphony

2. The main five-bar theme can be mapped rhythmically to the first subject of the symphony’s first movement

3. Some of the development ideas can be mapped onto elements of developmental material in the first movement

“Style is a replication of patterning, whether in human behaviour or in the artefacts produced by human behaviour, that results from a series of choices made within some set of constraints”.\(^{42}\) (pg 3) Patterns employed by Beethoven are created through constraints some of which were imposed by history and the compositional conventions of the day. Few of these constraints would have been devised by composers writing at that time. I have investigated the patterning against convention and constraint in specific aspects of the symphony and then directly generated material for the piece from my conclusions. I will illustrate how these patterns in the symphony, developed from the constraints imposed by the style of the period (or indeed the constraints that define the style), show how momentum\(^{43}\) is achieved by Beethoven in the first subject. I then translated the


\(^{43}\) I define musical momentum as the impetus of musical events or elements. In this example, it is the harmonic impetus; how the sequence and frequency of musical events combine to show the speed or pace of the music.
investigation of this patterning to generate material for the basis of my piece.

The challenge was how to replicate a similar impetus of musical events/elements when I was not able to use established, conventional patterning. Thus, replacing conventional classical melodic and harmonic devices with a parallel system; choosing pitches, that in my opinion, gave a similar impetus in the Beethoven extract meant I was deploying thick reasoned compositional decisions. This was a technique I was comfortable with as it was a natural progression from my previous practice. The only difference was that I used pitch and harmonic devices derived from my sense of momentum in Beethoven, rather than a note series. In the past, the stimulus had been ideas as diverse as the industrial landscape of my youth in the North West and sixteenth century religious arguments surrounding the Reformation and Counter-Reformation. The unifying and comforting (ie. familiar) factor in my compositional process for October 2010, was the reasoned choice of and manipulation of pitch and rhythm. See examples 4 and 5.
Appropriation was to have been the central concept and technique in my PhD submission. This did not happen; only October 2010 and *Three Scottish Pieces for Guitar and Violin* follow the plan to appropriate compositional ideas from the Beethoven symphonies. The idea to appropriate the structure of *Three Scottish Pieces for Guitar and Violin* was generated from thinking related to the Brian Elias piece (above). However, further research did not result in this concept developing. I had to consider the idea of post-modernism and critical-modernism when investigating appropriation.

In the introduction to their book *Western Music and its Others*, Georgina Born and David Hesmondhalgh⁴⁴ investigate the relationship between western art music and “other” musics. They state that to examine musical borrowing and appropriation it is necessary to consider the relationships between culture,

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power, ethnicity and class. These relationships are further linked into the dynamics of gender and sexuality. Post colonial analysis provides a starting point for the consideration of musical appropriation. I reflect that it may be possible to link post-colonialism with post-modernism when examining the relationships between culture, race and colonial power. Charles Jencks\textsuperscript{45} argues that the First World war is the start of the end of modernism. Can one argue that post-colonialism is similar? Possibly not; it would seem that the breakdown of colonialism is a new paradigm and therefore modern. Much post-colonial thinking occurred in the 1970’s, ‘80’s and ‘90’s, and this does put it in parallel with post-modern thinking. Born and Hesmondhalgh state that there has been difficulty with aligning the “relative lack of attention in music studies to the relationships between musical cultures, race and colonialism…” (pg 7) The reasons are; “music’s apparent status as a non representative medium; continuing reluctance in the core music disciplines to consider the political dimensions of musical cultures and musical scholarship.” (pg 7) One example of the long history of appropriation in western music is Russian orientalist; for example, Borodin’s \textit{Prince Igor}, Orientalist settings of Pushkin by Glinka, Balakirev and Rachmaninov.

This really leads to synthesis; Russian appropriation of orientalism leads to the West (stated in Paris by Diaghilev) considering Russian orientalism to be Russian music. Russian music is Eastern music. A continuation of my original appropriation concept would have led me to an internal debate regarding the placing of my music on a modernist - post-modernist - critical modernist scale. This, combined with the problem of defining my approach to appropriation, led

\textsuperscript{45}Jenks, C (2007). Critical Modernism Where is Post-Modernism Going?. Wiley Academy
me away from the concept. The second movement of *Three Scottish Pieces for Guitar and Violin* represents the final example of this concept, with the first and third movements not engaging with the concept at all. There is an example of appropriation in the third (*March*) movement of *Memorial Suite for Band*, see example 6. This uses a fragmented version of *Rule Britannia* for a specific reason; the tune forms part of the Royal Anglian Regiment’s regimental march. The reasoning behind its inclusion is programmatic and has no relation to the original plan.

**Example 6**

An example of appropriation in bars 74 and 93 of the March movement of *Memorial Suite*. Fragments of *Rule Britannia* (the Royal Anglian regimental march) are used throughout the middle section of the movement.
Three Scottish pieces for violin and guitar

*Three Scottish Pieces for Violin and Guitar* is the second piece composed for the portfolio, I was commissioned by the New York based, Scottish guitarist, Steve Gibb, who wanted a piece with a Scottish theme. He specifically asked for a Strathspey inspired section to be included.

This piece combines both reasoned and intuitive decision making. Elements were created intuitively, but these were elements common with all other pieces in the submission such as the deployment of dynamics, tempo and texture. I have always been concerned with serialised pitch and to a certain extent metre and rhythm. I have rarely used intuitively derived structures, rather using either established structure or hybrid versions of an established convention. This stated, the structure of the second movement is appropriated from the second movement of Beethoven’s seventh symphony. This makes it more reasoned than intuitive, the opposite to an intuitively designed musical structure or a structure that organically develops with the piece. The initial pitch organisation was composed consciously intuitively (in that I was aware that I wanted to place pitches with the minimum of reasoning) as were the original rhythm cells. The subsequent treatment of this material is reasoned, employing established techniques to develop. The stimulus to compose more intuitively came from a

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46 A difficulty with this labelling is that it describes an average. The scale between reasoned to intuitive is not intended to describe the approach to a whole piece, but is an indication of how the majority of my compositional decisions were made. Here, with the previous indication that the majority of decisions made during the composition of *October 2010* were reasoned does not necessarily mean that there were not intuitive decisions during the process. The indication that *Three Scottish Pieces for Violin and Guitar* is both reasoned and intuitive is stated to show a conscious change in approach with less reliance on reasoned pitch generation. A growing realisation to allow intuition to act.
desire to develop and change my music significantly during the duration of the PhD. The aesthetic of Steve Goss’ *American Pastoral* (composed for the same forces) inspired me consciously to allow myself to develop initial pitch and rhythm ideas without first developing mechanisms to create them. The *Outlaw Bluegrass* movement is particularly free of the modernist aesthetic and seems to be intuitively composed, relaxing in the sound world of the deep south from a culturally embedded starting point.47 The Strathspey movement of my piece opens with the guitar providing a drone48, the movement also is built around a folk song inspired melody with prominent use of a flattened 7th within the melody. This is a unifying device in the movement, see examples 7 and 8. The use of this culturally embedded technique is intuitive, the way the drone develops throughout the movement; predominantly using single pitches, relying on the occasional sounding of a perfect fourth, is also intuitive. This is a significant departure from the benchmark I established earlier when discussing the influence of serialism on my music.

47 This is my interpretation of the aesthetic
48 A culturally embedded element of Scottish music for any person originating in the United Kingdom. It is particularly pertinent to me as I served in a Scottish regiment.
I rely on certain elements of the compositional process to be completely intuitive. In *Three Scottish Pieces for Guitar and Violin*, the creation of texture and related decisions, draw fully on culturally embedded paradigms of violin and guitar; see example 9. In contrast, Marios Joannou Elia presents a more reasoned approach to decisions about texture. Elia writes about qualitative polymediality with regard to composition. The concept can be presented in three ways; space, the physical performance space influencing the musical and dramatic structures of pieces; technology, Elia uses the example of a 360 degree sound engineering system in a multi channel audio format which would give total control to all sound sources; non-traditional and non- musical elements, electronic media, theatrical and other non-musical elements. His piece *Staubzucker* (2007) is a guitar quartet treated as a quasi percussion group. The piece downplays the traditional guitar playing technique, instead transferring traditional percussion sounds to the ensemble. This is an example of reasoning applied to an element of the compositional process that I rely on to be intuitive. I rely on embedded

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49 Elia, M.J. The concept of polymediality. www.mjelia.com
techniques to create the sound. Even the first movement of the piece, which is the most unconventionally notated, relies on sounds generated from conventional paradigms, see example 10.

Elia's *Im Spiegel* (2002), composed for guitar and 'cello, uses a similar notational method with no defined time signature or bar lines. The musical expression and harmony are explicitly defined, showing careful reasoning related to the approach to a different set of compositional decisions. "Holistic polymediality is not just the sum of the music and its staging, but the compositional effect of the summative image of the music being staged"50. My intuitive work with the sound world of this ensemble demonstrates a contrast in approach to reasoned decision making as illustrated by Elia.

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50 Elia within the web page, http://www.mjelia.com/the-concept-of-polymediality/
The Beethoven derived structure of the *Strathspey* means that there are some extremely reasoned features. The tempo marking of seventy-six beats per minute is the tempo marking of the Beethoven movement. The structure follows the Beethoven bar for bar, by replicating the eight bar phrases and the macro structure of the movement. Less reasoned is the texture relationship between the texture and dynamic density in the Beethoven and the complexity in my movement. This relies upon intuitive decisions regarding the complexity\(^5\) of Beethoven’s music at any given point and the musical parallel in my music. In this sense, elements of the Beethoven movement are directly appropriated by creating intuitively derived parallels, see example 11.

\(^5\) Here, I define the building complexity in the Beethoven to mean the gradual building of texture and dynamics. Also, the building force of the relationship between melody and countermelody.
Example 11
These eight bars from bar 67 represent the intensity of the eight bars from bar 67 in the Beethoven movement.

Example 12
The “Scottish” rhythmic cells are off-set to produce this texture

The reasoned decision making in this piece is further consolidated with the development of the rhythmic organisation; the initial rhythmic cells were created intuitively with the aim of creating a Scottish sounding rhythm, as was the subsequent organisation of the rhythm (see example 12). The simultaneous transposition of pitch cells also contributes to the reasoned decision making in this movement. Although created with intuitively derived pitch cells, the constant repetition of this technique shows a serial approach to developing the music. With an intuitively created foundation, the Strathspey therefore is mainly
reasoned. However, increasing use of intuition in the creation of the source material ensures an intuitive feel to the movement with its intuitively derived Scottish influence more than evident. Example 13 shows how I provide a contrast to indicate the middle section of the movement by using a mixed metre passage to represent the more lyrical style in the middle section of the Beethoven. This mixed metre music, and the original material from the first section of the movement alternates according to the structure of the original Beethoven movement. There is no attempt to represent the character of Beethoven’s music. Example 14 shows some of the pre-compositional working for the Reel. I use rhythmic cells alternating in series, including more mixed metre to develop rhythm in the movement. I also use two note rows, one representing tension, the other release. Hill Runes (1981) a solo guitar piece written by Peter Maxwell Davies for Julian Bream in 1981, employs pitch organisation that creates a quasi “tonal” scheme with a “tonic” set of pitches being contrasted with a “dominant” set of pitches.\(^{53}\) (pg 15) The piece places great technical demands on the performer and also expands the technique of the instrument. The reasoned application of the pitch system is a parallel to my piece.

\(^{52}\) Although this reflects the amount of reasoned thought in this movement, labelling the movement as reasoned could be problematic as it again can be seen as an holistic label. It is an average. \(^{53}\) Harvey, D. (1984). Hill Runes. Tempo. Cambridge University Press
Three Scottish Pieces for Guitar and Violin is a pivotal piece in my compositional thinking; it allowed me to adapt my pre-compositional process to include much more intuitively derived decision making. This change in direction is consolidated in Along the Silent Streets, a song cycle for baritone and piano. The text was created by Phillip Dalziel. Phill is a Brechtian; this, combined with the

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54 Phillip Dalziel is a poet, playwright, theatre director and educator. The majority of his directorial output is presented in a sparse, politicised Brechtian style. It was always our intention for our artistic collaborations to adhere to that principle.
emotionally political narrative of his writing, was an ideal stimulus to experiment with when attempting to work in a more intuitive way.

**Military**

Phillip Dalziel’s words that frame the opening of the song cycle, *Along the Silent Streets* reflect the human suffering instigated by the movement of people created by the Bosnian conflict in the 1990’s. This narrative, and the dramatic implication of the text, provided the opportunity to consciously use intuition to create the basis for the pitch organisation. The decision to use the dorian mode based on D was intuitive as I associated its melancholy with the dramatic content of Phillip’s words. Reflecting later, this was a decision also influenced by English pastoral music culturally embedded from a young age by the music of Vaughan Williams and Holst. My military service in my early twenties, saw me playing music by both composers as it was still popular at that time with the Directors of Music trained in the 1960’s and 70’s. Vaughn Williams’ *Folk Song Suite* and Holst’s Suites for Military Band were still very widely performed in the British Army.

Military music has always held a fascination for me. Aged 20, as an undergraduate at the Royal Academy of Music, I enlisted in the (as it was then) Territorial Army, joining the Band of the Royal Yeomanry. This started what is currently a thirty year association with military music. Aged 22, upon graduation, I enlisted in the Regular Army, joining the Band of the Scots Guards; I served for six years including a stint of active service in the 1990-91 Gulf War. Since leaving the Army, I have maintained a part-time involvement with military
music, serving nearly twenty years by returning to the Territorial Army (now Army Reserve) in the Band of the Royal Anglian Regiment. This deep-seated military music paradigm ensures that a piece for military band is included in the portfolio without reasoning. This is the most personal piece in the portfolio as it reflects upon my own experiences of war as well as my involvement in a specific act of remembrance in September 2010, just prior to me starting on my PhD journey.

The second movement of the *Memorial Suite for Military Band* was composed first; I linked intuitive compositional decisions with tonality. As with the first movement, there was an intuitive decision to give the movement a tonal base; Eb minor, and, to use inversions of added note chords to create uncertainty within the tonality, see examples 15 and 16. The text for the movement was specially commissioned from Phillip Dalziel and reflects my experience of taking part in the ceremony to dedicate the Royal Anglian Regiment memorial at IWM Duxford. The memorial remembers all members of the regiment killed in action since the formation of the Royal Anglian Regiment in 1962. The majority of names are from the Northern Ireland conflict, Iraq and Afghanistan. The experience of taking part in that ceremony, combined with my own experiences during the first Gulf War, inspired me to write this piece and to commission Phillip to provide the text. It is dedicated to the regiment and its purpose is to commemorate the names on the memorial.\(^{55}\)

\(^{55}\)Please see the dedication in the score
Reasoning and intuition

Along the silent streets

The compositional choices related to pitch are more intuitive in *Along the Silent Streets* in comparison to *Three Scottish Pieces for Guitar and Violin* discussed earlier. The original choice of pitch is intuitively altered and based purely on the sound world I wanted to achieve to represent the text “Along the silent streets we came”, I also punctuate the word settings with mixed metre material, see examples 17 and 18. As stated previously, when discussing military music influences, I chose to base the piece in the dorian mode based on D which I
consider to be an intuitive decision related to previous cultural and experiential influences. The pitch choices starting at bar 44 are also developed intuitively. Here the development and presentation of the pitches is born out of the harmonic series, created by the natural resonance of the strings of the piano after a black and white note cluster played on certain notes, see example 19. Olli Väisälä, writing in 2002 refers to “virtual pitch” where the perceived pitch is the same frequency of a complex tone. The piano cluster in Ex13 is complex as it is a tone consisting of many frequencies. The virtual pitch perceived is considered to be a psychoacoustical concept. Väisälä, citing Richard Parncutt (1988) also discusses the concept of “harmonic root” which allows the root of conventional harmony to be predicted in accordance with musical practice. Both this psychoacoustical and culturally influenced view of the relationship between harmony and the harmonic series can be considered as the harmonic series is culturally embedded in the west, so the pitches generated from the piano cluster are intuitive decisions, particularly in example 19 on the setting of “Don’t flinch at that” which is a recurring melodic fragment in the song cycle.

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56 G in bar 45
58 I created the melodic fragment setting the words “Don’t flinch at that”, used throughout the cycle, from an analysis of the harmonic series based upon C sharp and G sharp, then mixing pitches from the upper end of the pitch clusters. As the harmonic series is culturally embedded in Western musical culture, I consider the generation of melodic ideas from what is a naturally occurring sound to be an intuitive choice of pitch (see example 20).
Example 17
Mixed metre material used throughout the first song to punctuate the vocal line. This example at bar 8.

Example 18
Along The Silent Streets

Philip Dolziel
Baritone Solo
Moderate $\approx$ 72
Faster $\approx$ 100

Neil Carey

Moderate $\approx$ 72
Faster $\approx$ 100
To further illustrate this I present some concepts developed and championed by spectralist composers. I am considering the concept of a composer relating to sound in the same way that a potter may relate to the clay he works with\textsuperscript{59}, whether considering differences between sound and organised sound related to

\textsuperscript{59} Dillon, J. (1993). Seminar at Goldsmiths’ College, University of London. I first heard the idea of this analogy from James Dillon in a talk about his music at Goldsmiths’ College in 1993. Dillon was contextualising his work with different frequencies derived from pulsars during his residency at IRCAM.
physical laws i.e. the harmonic spectrum. Although both are closely related as they are both manipulations of different parts of the sound wave. The use of the harmonic series derived from the piano cluster in *Along the Silent Streets* is further application of culturally embedded organised sound. The more intuitive nature of my application of the harmonic series at this point contrasts with the more reasoned nature of the application of the harmonic series by some spectralist composers. “We are musicians and our model is sound, not literature. Sound, not mathematics; sound, not theatre, visual arts, quantum physics, geology, astrology or acupuncture”60. This suggests the organic application of sound above all other stimuli. The sound itself is very intuitive as it occurs in a natural state and therefore is not part of a paradigm in the musical sense. Of course, it is part of several scientific paradigms in its natural state. The resultant treatment can be intuitive. My use of the harmonic series from the arm cluster was deliberately intuitive.

In contrast, Grisey’s *Partiels* uses the harmonic spectrum generated by a trombone playing a low E. Grisey analysed the spectrum and used the analysis to present that harmonic spectrum across instruments in the opening of the piece. The reiteration of this harmonic spectrum moves slowly over repeats to the development of sound from inharmonic partials. This scientific analysis of the sound moves the listener from the culturally embedded and intuitive sounds of the harmonic spectrum (organised sound) to the reasoned application of the sound developed from increasingly inharmonic frequencies. This illustrates, perhaps, an accord between my use of the harmonic series at the start of the

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60 Grisey, G. Spectral manifesto
song to Grisey’s reasoned application which provides a contrast. I argue that this song in the cycle is largely intuitively created, with the usual caveat that this is an average. Although the note cluster-generated harmonic texture is relatively isolated, occurring only in the first song, the thematic material, generated by considering the melodic implications of the sounds generated by the cluster, permeate both this song and the whole cycle. Another unifying device in the cycle is my setting of the word “photograph” (consecutive ascending major seconds), see example 21, which shows the setting in the second song. Example 21 also shows the “jazz waltz” inspired accompaniment, which is deployed consistently in the song.

Example 21

The most reasoned song in the cycle is The rope maker. The vocal part is reasoned, taking its slow progress through the song from a twelve tone set that is sounded just once, see example 22. The concept for the construction of this movement came from Britten’s Children’s Crusade. The connection is Britten’s setting of Brecht; as stated previously, Phill Dalziel is a Brechtian and the connection has pleasing cultural references for me. The rhythm is mainly reasoned in this song, being created from a mechanism converting the individual
pitches of the set into temporal values; this, in turn, is applied to my evaluation of the importance of the word within the line. The important words receive longer durations’. The piano accompaniment, although created out of the set, is improvisatory, so seems more intuitive in the way it interacts with the vocal line. I consider this the most reasoned song in the cycle. This is deliberate as a homage to both Britten and Brecht. *Children’s Crusade* was written in 1969 to commemorate the fiftieth anniversary of the Save the Children Fund. Brecht’s poem, translated by Hans Keller, deals with the fate of children during the German invasion of Poland in 1939. Phill Dalziel’s poem deals with the fate of Bosnian refugees during that war in the mid 1990’s. Britten sets the work in short phrases reflecting the speech rhythms in Brecht’s poem. This could show application of reasoning as it is applying pre-existing structures to the compositional decisions. In a similar method, I have taken numeric values (as discussed above) from the speech rhythms in Phill’s words for *The Rope Maker* and applied them in a reasoned way in the baritone line.
The most intuitively composed song is *Along the river bank*; this is an English pastoral melody composed under the influence of Vaughan Williams discussed above. This reflects the text, a pastoral scene that becomes darker and more sinister by the end. The piano accompaniment at the end of the song shows this. It's deployment is intuitive, the pitches chosen to reflect the words; "......bruised and rotting flesh......". The pauses at bars 24 and 25 see the first entry for the piano. Pitches are as harmonically distant from the voice pitches as possible. For example, the piano chord in bar 24 consists of E flat, E, B and F; this against a B flat in the voice part. The idea is appropriated from the opening of Peter Maxwell...
Davies' *Sinfonietta Accademica* where the opening Scottish dance slowly dissipates into dissonance, see example 23.

**Example 23**

The end of song 4, showing how the piano pitches relate to the voice part

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Memorial Suite for Military Band

*Along the Silent Streets* and the *Memorial Suite for Military Band* were actually composed at the same time. The chronology is relevant, as there are no musical links between the two pieces. The song cycle emerges as the more reasoned piece of the two, is due to its chronology. *Memorial Suite for Military Band* was started first, but, an opportunity arose to have a baritone and piano work
professionally performed, and this interrupted work on the band piece.

*Memorial Suite for Military Band* was completed at a time when I was developing and completing research to refine my research question, that of the basis of the relationship between the conscious and subconscious in my work. Although developed at a similar time, with both pieces having an aim of less reasoned thought, the military band piece should be seen a development in thinking about my compositional decisions.

Examples of intuitive compositional decisions in the second movement of *Memorial Suite for Military Band* are contrasting rhythm cell choices, (see example 24), and their subsequent deployment, which is more reasoned. An example, in this movement, of what might be described as culturally conditioned intuitive decision making is rhythm B (from the above example) which was developed from my memory of rhythms used by Vaughan Williams in the first and second movements of his sixth symphony. The composition of this movement represents a pivotal point in my compositional development; the subsequent decisions for this and the following pieces are different and consciously more intuitive than in my previous work.

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61 On balance, the movement is intuitively composed. I wish also to reflect on the amount of reasoned thought involved, but, this does not affect the average.
The first movement has a pitch centre of Bb. An example of reasoned decision in this movement is the repetition of a rhythm composed from this staring point. Ex 25 shows the initial pre-compositional sketch for the core rhythmic material. The 5/8 bar was removed intuitively at the composition stage, as it interrupted my conception of the dance-like flow of the music. This seemingly insignificant decision is actually a major change in my compositional process as, previously, I would have been unlikely to have made such an alteration, relying instead on the previously established premise. This decision is intuitive and represents a significant revolution in thought. Example 26 shows my orchestration of a triplet decorative feature from the Dance movement, the original short score is included for comparison. Taking a line across parts is a feature of the orchestration in the whole piece and is perhaps a little unusual within the military band repertoire.
Example 25
The sketch with the five eight bar and the final piece without.

Example 26
Dance, bar 125. An example of orchestration shown with the original short score
A Child of Bethlehem and Rachel

The final and cumulative project of my PhD consists of two pieces, a chamber opera and a work for string orchestra. Both derive from the same source material which initially served as a stimulus for the opera. Chronologically, most of the latter was composed first, with the string orchestra piece being written just prior to the opera’s completion. In both cases, the approach was explicitly intuitive and both are based on the narrative and sound world of the 1591 version of the Coventry Carol. The underlying melancholy of whole passages of the opera, pitch base and rhythm were intuitively created from the carol. There is some reasoned thought, particularly with regard to pitch; this could be seen as being intuitive as it is either working with the original or intuitively created melodies. Example 27 shows me deviating from my pre-compositional workings. A change of time signature from 13/8 to 4/2 would have previously been unusual for me as I invariably stuck to the plan. However, this change (for practical performance related reasons) shows a now established intuitive intervention. Dramatic voice and ensemble works which affected my opera, such as Philip Venables’ 4.48 Psychosis and Emma-Ruth Richards’ voice and ensemble piece An English House show a contrast of approach to my piece, but also a similarity of certain aesthetics. The use of vocal repetitive cells in Venables’ piece shares certain aesthetic similarities. Although the subject matter of the story is different, (Venables’ opera being a meditation on the nature of clinical depression), the subject matter in A child of Bethlehem is also uncomfortable in its concept. There is an intuitive approach to my setting of the dramatic action
which is a direct result of the nature of the story. *4.48 Psychosis* uses a slightly larger ensemble than my piece, but not significantly so; this helps place my piece within the chamber opera or music theatre canon: (eg: Stravinsky’s *The Soldier’s Tale* or Maxwell Davies’ *Eight Songs for a Mad King*).

Also similar to my use of soprano with ensemble is Emma-Ruth Richards’ work for soprano and ensemble which has a similar aesthetic to my piece when considering the interaction of the voice and instruments in her work. My choice of instrumentation is intuitive and follows very little reasoned decision making. Parallels with *An English House* are the way in which the melody is orchestrated through the ensemble in the ground bass sections in my opera, and, indeed, the treatment of similar material in *Rachel*. Example 28 shows the passacaglia built on the ground that provides accompaniment material for much of this “core” melodic material in both the opera and *Rachel*. Another similarity is Venables’ use of a percussion duet which “duel and duet above the singers heads”, allowing me to draw a parallel with Venables through my use of percussion, particularly the interaction between the soprano, tubular bells and tuned drums.

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62 Ashley, T. (2016) Guardian newspaper review
The focal point of the opera is the extended aria *Rachel’s Lament*, which occurs at bar 448. Example 29 shows the original carol melody and metrical structure. The subsequent pitch sequence shown in example 30 was created from the major and minor 3rd in the carol including the B flat (A sharp in the example) and B natural. This reflects the carol’s tierce de picardy and is an important melodic feature of the ground bass found at the start of this aria. The stimulus for the aria
was Dido’s Lament from Purcell’s Dido and Aeneas. The use of this is intuitive, as features such as the ground bass and sparse texture were composed only with the idea of the Purcell in mind, not from a technical analysis of the latter. Example 30 demonstrates how a synthesis of my melody inspired by the carol and the original pitches of the carol combine to create the harmonic base of the opera and also the ground at the start of the Lament. As the pitches of the carol have been appropriated into creating the melody and harmony, the music does sound organically linked to the G minor melancholy of the original. The main device used to create this, “core melody” is intuitively created from the sound world of the carol. The pitches represented in the example are used throughout the opera (transposed in earlier incarnations).

Rachel, for string orchestra was written, as stated previously, towards the end of the opera’s composition. Written for violas, ‘celli and bass it was written intuitively from intimate knowledge of the opera’s compositional process, decisions and pre-compositional material. The two sections are developed
directly from "Rachel's Lament". Example 31 shows the opening, strident statement from the string piece is taken from bar 448 of the opera. Initially the harmony from bar 448 is ignored to allow a unison of all viola parts to feature as a melody that serves as the ground bass in the opera. This is then intuitively developed, in a similar way, but separately from the opera. The original is appropriated from the opera. This shows reasoned thinking, whereas the development of this opening is intuitive. For example, the decision to only harmonise a few notes in the phrase. Eventually, at bar 25, the harmony (adapted) is appropriated from the opera material.

Example 31

The opening statement in *Rachel*

![Musical notation image]

Derived from material at bar 448 in *A Child of Bethlehem*

![Musical notation image]

The rhythmic cells (or ideas) in the opera were created in a similar way to the pitch organisation; intuitively developed from the rhythm and metre of the
original 1591 carol. Example 32 shows the rhythm and metre from the carol, Ex 33 shows the mixed metre rhythm cell developed from it. The mixed metre rhythm shown in bar 61 of Rachel and first seen in bar 171 of the opera provides the core rhythm for both pieces. Ex 34 shows the start of the mixed metre passage in the string piece. This is developed by repetition, as in the opera, so in the context of the string orchestra piece is reasoned. The rhythmic development of the opera (and subsequent string orchestra) material is intuitive, although some reasoning is evident. The material at bar 448 is intuitively derived from the main (predominant) metre and rhythm in the original carol. In this sense it is reasoned; as it repeats a simple appropriated rhythm, and also intuitive, as it is used as a result of the cultural embedding of the musical element of the carol in my own musical repertoire.

**Examples 32 and 33**

Metre from the original 1591 carol.

Mixed metre at bar 61 of Rachel. The combinations of groups of three and two are derived from the mix of four, three and two metre above. For example, the first seven eight bar is derived from a three metre followed by a two metre in the original. It could be the final bar leading back to the first, or any of the three four bars followed by a two four.
Louis Andriessen's opera *La Commedia* written eight years earlier than my previous examples, employs similar (driving) rhythmic repetition. It appropriates Baroque music and children's songs in a different way to my appropriation of the *Coventry Carol* (referenced above) as direct quotation is evident. The rhythm of the soprano part starting at bar 458 of my opera is more intuitive as it works with, and against, the established rhythm of the ground bass, see example 35. Taking into account the reasoned nature of some of the compositional decisions in this section of the opera, the whole of the rhythm is really intuitively derived from the original carol. Example 36 shows the way the soprano line interacts with the ground bass.
The material from bar 513 in the opera creates a contrast to the melancholy of the text “Rest now, rest now. You will never see the sun set red against the sky...”.

The quirky “off set waltz” idea is used again out of the predominant three metre of the original carol and the previous section of the aria starting at bar 448.

Richard Ayres’ opera The Cricket Recovers’ repeated rhythmic cells used to accompany vocal lines is a useful comparison here. The section, “we sing about summer”, employs a repeated motor rhythm to accompany the voice parts.

Although the basis of the piece is a quick step the, dance-derived accompaniment
is an apt comparison even if the over all aesthetics are different. There is no pattern to the off set waltz-like rhythm cells at bar 504 shown in Ex 37; the rhythmic development is intuitive, serving as an introduction to the material at bar 529. The quaver rhythm found at bar 529, Ex 38, is a feature used throughout this section in both the soprano line as well as the accompaniment. The placing of the syncopation in this reasoned repetition is intuitive. Bar 562 in the opera is a reasoned application of intuitively derived mixed metre material. The original material shown earlier in Ex 34, was created by experimenting with different combinations of cells of three quavers and two quavers; this being appropriated from the mixed metre of the original carol.

Example 37

The piano part at bar 504 of the opera. This shows the “off set” waltz material which is initially presented fragmented as an introduction.

Example 38

The quaver feature at bar 529 of the opera, showing a consolidation of the fragmented material in example 37

Rachel continues to develop this material at bar 81. Example 39 shows material not directly copied, but sourced from bar 580 of the opera. The idea is initially
intuitively developed. It then uses repetition and sequence to develop further which shows a reasoned application of technique at this point. This section of the string piece also synthesises separate ideas from the section at bar 562 of the opera, it is a similar example of the intuitive development of appropriated material is found at bar 102 in the string piece, see example 40. Material developed from bar 469 in the opera is synthesised with the previously developed mixed metre material. This is unique to the string piece. In contrast to the small-scale ambitions of my opera, works such as Harrison Birtwistle’s *The Minotaur*, Thomas Adés’ *The Tempest* and George Benjamin’s *Written on Skin* are large-scale works in the post Britten operatic tradition. There are aesthetic and ideological links to my piece however; for example *The Tempest* has moments of melancholy with contrasts of lyricism and extreme atonality, I intuitively use similar contrast in response to the dramatic action. *The Minotaur* adapts and uses ancient mythological themes much as I use ancient biblical themes in my story, also there are similar uses of contrast of use of harmony and pitch. Benjamin’s opera is dealing with similarly uncomfortable subject matter involving death.
Example 39

Bar 79 of Rachel. This shows material sourced, but not copied from bar 580 of the opera.

Example 40

Bar 102 of Rachel showing material derived from bar 469 of the opera, synthesised with the mixed metre material to produce a passage unique to this piece.
Conclusion

This commentary has charted my compositional journey over seven years from
the initial piece of the project *October 2010*, to the principal piece of the
submission, *A child of Bethlehem*. The aim was to make the opera the climax of
the project, with a development of skill and practice evident over time. The
journey itself was unpredictable. The outcome is I suggest a subtle, yet
significant, change in my approach to decision-making at the core of the
compositional process. The academic endeavour employed in the charting of this
journey is my contribution to the knowledge base surrounding the meta-
cognitive processes employed when composing music and conscious decision
making between reasoned and intuitive thought. The growing realisation, that
the meta-cognitive process can be both a reasoned and unconscious process
meant that in the later pieces of the portfolio (*Memorial Suite, Rachel* and a *Child
of Bethlehem*) I have been aware of choosing between reasoned and intuitive
application. I have been unashamedly self-indulgent in this commentary, where I
have defined the roots of my own culturally embedded intuition and also, the
roots of my initial adherence to a reasoned methodology. My background in both
post-war conservatoire led modernism and my thirty year (twenty to thirty years
in the context of this PhD project) involvement with military music making
significantly impacts on any intuitive decisions made in my compositional
processes. It is my hope that the combination of reasoned and intuitive
compositional decisions have created pieces of music that are not just exercises,
but do convey meaning and have purpose, even if just for myself.
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