Portfolio of Compositions with Accompanying Written Component

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Volume II:

Written Component

THESIS CONTAINS

DVD

Contents

List of illustrations

Part 1: Narrative and Music

Introduction

I will begin with a question: why think about the relationship between narrative and music? In *The Cambridge Introduction to Narrative*, Prof. H. Porter Abbott describes narrative as 'a tool for knowing as well as telling, for absorbing knowledge as well as expressing it', emphasising this idea by mentioning Hayden White's observations on the etymology of the word 'narrative' (from the Sanskrit word 'gna', meaning 'know', through the Latin words 'gnarus' meaning 'knowing' and 'narro' meaning 'telling')[1]. Abbott also quotes Roland Barthes:

> 'The narratives of the world are numberless. Narrative is first and foremost a prodigious variety of genres, themselves distributed amongst different substances...Able to be carried by articulated language, spoken or written, fixed or moving images, gestures, and the ordered mixture of all these substances; narrative is present in myth, legend, fable, tale, novella, epic, history, tragedy, drama, comedy, mime, painting...stained-glass windows, cinema, comics, news items, conversation. Moreover, under this almost infinite diversity of forms, narrative is present in every age, in every place, in every society...All classes, all human groups have their narratives...narrative is international, transhistorical, transcultural; it is simply there, like life itself.'[2]

This suggests that narrative is a fundamental aspect of humanity, an idea expressed by Abbott when he asserts that '*narrative is the principal way in which our species organizes its understanding of time*'

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[1] H. Porter Abbott, *The Cambridge Introduction to Narrative* (Cambridge: Cambridge University Press, 2002), p.11
[2] Roland Barthes quoted in Abbott, *The Cambridge Introduction to Narrative*, p.1

by '*allowing events themselves to create the order of time.*'[3] He proposes a theoretical model in which:

> '...**[N]arrative** is the representation of events, consisting of a *story* and *narrative discourse*, **story** is an event or sequence of events (the *action*), and **narrative discourse** is those events as represented.'[4]

Abbott refines this model by suggesting that 'story' requires '*events* and the *entities* involved in the events' as 'without entities, there would be no events'[5]; he also makes a distinction between '**constituent events**...events that are necessary for the story' and '**Supplementary events**...events...without which the story would still remain intact.'[6] In this model 'story' refers to that dimension of narrative that we reconstruct in our minds from the information in a given 'narrative discourse'; this reconstruction is linear and chronological and, by this process, the 'story' is revealed through the 'narrative discourse'. However, the information in the 'narrative discourse' does not have to be linear or chronological. This model suggests the existence of a simultaneous temporal logic: the time it takes us to experience a 'narrative discourse' (real or clock time) and the time scale that we reconstruct from the 'narrative discourse' ('narrative time').

The concept of 'narrative time' has interesting implications as it demonstrates the possibility that 'narrative discourse' can distort time. For example, a 'narrative discourse' can describe an event lasting barely a second (such as the dropping of a pen) in such detail that it seems to expand time, whilst the fall of an empire that lasted a thousand years can be described by being compressed into the

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[3] Abbott, *The Cambridge Introduction to Narrative*, pp.3-4
[4] Ibid., p.16
[5] Ibid., p.17
[6] Ibid., p.21

space of a short sentence. 'Narrative time' can also be felt to distort real or clock time in that, as Abbott points out:

> '...[A]t one and the same time story appears both to precede *and* to come after narrative discourse. On the one hand, a story does seem to have a separate existence, lying out in some virtual realm while the narrative discourse endeavours to communicate it...On the other hand, before the narrative discourse is expressed, there is no story.'[7]

This theoretical model of narrative can be summarised as follows:

Narrative (the representation of events) =

Story (an event or sequence of **constituent events**)
Narrative Discourse (those events as represented – includes **constituent events, supplementary events, entities**)

Abbott's definition of narrative indicates that it is central to the construction and communication of human existence. However, he does not suggest how narrative theory might be understood as operating in a musical context. Similarly, in the Barthes quotation used above, there is no explicit mention made of music as a carrier of narrative, despite the identification of narrative's various manifestations in other aspects of human culture. Yet as musical activity also seems to occupy a central and defining position in human culture, it is surely feasible to imagine ways in which narrative and music are related.

As a composer, I am interested in acts of communication, the ways in which the music I write can be heard and understood. The language

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[7] Abbott, *The Cambridge Introduction to Narrative*, p.18

of music theory, analysis and practice is, maybe necessarily, quite technical and specialized. Therefore, it seemed to me that engaging with a theoretical model of narrative that can been applied to media as diverse as literature, film, theatre, painting, television and sculpture (to name a few broad instances) offered an interesting alternative context for thinking about acts of musical communication.

As a listener, I am drawn to the structural features of musical works, in other words, musical form. I understand form as the relationship between identifiable musical objects, their repetition, non-repetition or transformation delineating structure. When listening to a piece of music for the first time, I tend to find certain gestures compelling and, as a result, significant; how such gestures are treated subsequently (whether they are repeated, varied, combined or withheld) shapes my understanding of the music in question. Upon further engagement with the music (through listening to another performance, reading a score/text, or through an act of memory), I begin to apprehend the nature of the material other than the gestures that I first heard as significant; in this way, the identity of a piece as a whole is built up in my mind. I understand this as a process in which the 'story' of a piece of music is gradually discovered or, perhaps, a process by which the 'story' that I hear in it is constructed. In this sense, I have always thought of music as a kind of narrative (and the reconstructive processes through which I apprehend the overall structure of a piece seem to be analogous to revelation of 'story' in Abbott's model of narrative). It became apparent that exploring the extent to which narrative theory is analogous to different theories and aspects of music might suggest ways of understanding if and how narrative operates in a musical context and how the potential operations of musical narrative could be harnessed for compositional purposes.

Narrative theory and music theory

The idea that an underlying linear logic is retroactively constructed from data presented in a 'narrative discourse' – that there is something happening that we perceive beneath a 'surface', potentially with a different temporal logic from this 'surface' – is a concept central to the model of narrative theory discussed above. This idea has similarities to some theoretical writing regarding Western European common practice tonal music, particularly the work of Heinrich Schenker and his followers. Schenker theorised that all common practice tonal music could be reduced to a simple, underlying contrapuntal (linear-harmonic) structure. The method of analysis developed from his theories involves stripping away the elaborations of the musical surface to 'reveal' this hypothetical 'fundamental structure' (the *Ursatz*, an underlying linear-harmonic pattern that takes one of three forms and that is present, according to the theory, in most common practice tonal music). The resulting analysis seeks to explain the particular way that the piece of music being examined operates as an elaboration of this underlying structure.

Schenker's analytical approach can be understood as being analogous to the model of narrative outlined above. In this analogy, the narrative discourse is the piece in question, made up of events that can be classified as 'constituent' (part of or directly elaborating the *Ursatz*) or 'supplementary' (surface elaborations that can be stripped away to reveal the *Ursatz*). Therefore, the *Ursatz* is analogous to 'story' in the model of narrative – it is the fundamental, underlying aspect which is perceived through the narrative discourse – it is what a piece of music is 'about' or, rather, what a piece is 'about' is the particular elaboration (prolongation) of this 'story'. In the model of

narrative, the story that we reconstruct is described as linear and chronological. This is also the case with the *Ursatz* which, in Schenker's theory, is a single motion that can only move forwards in time once it has started; as with 'story' in the model of narrative, it cannot have its constituent events altered without fundamentally changing what it is – in theory, there can only be one version of the *Ursatz* in a piece of music just as, according to the model, there can only be one version of the 'story' in a particular 'narrative discourse'. As with the constituent events in a 'story', if a change is proposed on the *Ursatz* level then what the narrative/piece of music is 'about' also changes. There is also a paradoxical logic shared by both the concepts of 'story' and *Ursatz*: they each seem to pre-exist the 'narrative discourse' whilst at the same time they are revealed and only accessible through it.

An interesting issue that arises when comparing the Schenkerian model to the narrative model involves the concept of 'entities'. Abbott defines events (constituent and supplementary) as the 'actions or reactions of entities' and states that 'without entities, there would be no events'[8]. This distinction is less clear when employing Schenkerian ideas and begs the question: what constitutes a musical entity? In a literary narrative, an entity can be, for example, a character or an object. It might follow that a musical entity could be a musical object (a chord or melodic fragment) or a more developed musical idea (a theme, melody or section). Yet, surely these musical 'objects' and 'characters' can be understood as the events themselves rather than entities whose actions cause the events. One might argue that, in the context of a musical performance, the entities causing the events are the musicians. However, in pursuing the Schenkerian analogy, it is perhaps more helpful to collapse the term

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[8] Abbott, *The Cambridge Introduction to Narrative*, p.17

'entity' into the concept of 'event'. Thus a structurally supported $\hat{3}$ is a musical 'constituent event' on the level of the *Ursatz* that is both a 'character/object' and 'action' in that 'story'.

Another interesting parallel between Schenkerian theory and narrative theory involves the concept of closure. For Schenker, closure was achieved on the level of the *Ursatz* when a structural **I** in the bass could be demonstrated as having coincided with $\hat{1}$ in the *Urlinie* (even though this might happen before the end of the piece of music being analysed). This is similar to Abbott's idea of 'Closure on the level of expectations'[9] in narrative, in which a fundamentally important chain of causes and effects operating on the level of 'story' (involving 'constituent events') might resolve before the end of the 'narrative discourse' in question. Also interesting is the fact that Schenker only proposed three types of *Ursatz*. This is due to Schenker's moral/philosophical/musical values: he only esteemed a limited repertoire of European music produced by a relatively small number of composers from a period spanning only a few hundred years. This is not to say that he heard or wished to understand music as undifferentiated. Indeed, one of his stated aims was to explore and celebrate the amazing diversity of common practice tonal music through demonstrating that such music was underpinned by unifying principles.

The idea that music could be understood as the elaboration of a limited number of fundamental, unchanging 'stories' is similar to the narrative theory concept of 'masterplot', that is, culturally shared and recognisable story-types that we recognise as underlying a given narrative and that can be manifested in/mediated through many different (and often wildly varying) 'narrative discourses'. However,

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[9] Abbott, *The Cambridge Introduction to Narrative*, p.54

these ideas might also be applied to theories derived from post-tonal repertories, such as the fundamental pitch-class structures underpinning the early period 'atonal' compositions of the Second Viennese School or the all-governing underlying coherence supposedly engendered by the tone row in serial music.

Narrative and musical form

The 'story' of a piece of music might be said to exist in the behaviour of musical aspects other than the underlying linear-harmonic pitch structures identified by Schenker and his followers. For example, a work's tonal patterning and/or its thematic and motivic features might function as the 'constituent events' in a revealed 'story'. It is the nature of these musical aspects and the relationships between them that is commonly used to define what is generally known as 'form' in a musical work. For the musicologist Kofi Agawu:

> ''Form' is a slippery term. It may be used in a broad sense to refer to everything that makes for a meaningful shape, or dynamic trajectory, anything that promotes or undermines the coherence of the whole.'[10]

The issue of form is addressed in a book from 1915 by the then Professor of Harmony and Composition at The Royal Academy of Music, Stewart MacPherson. At the outset of this work, he states:

> 'It is an axiom that every object of nature, and consequently every work of art, must have some sort of intelligible shape or form, through the medium of which it reaches our mind and sense...In

[10] Kofi Agawu, 'Formal perspectives on the symphonies', in Michael Musgrave (ed.), *The Cambridge Companion to Brahms* (Cambridge: Cambridge University Press 1999), pp.133-155, at p.134

> music the need for clearness of form is even more urgent than it is in literature...No one particular set of notes can ever be said to represent either a concrete object or an abstract idea...hence it is that music unallied to words must largely depend for its intelligibility upon questions of Form, Design, Shape'.[11]

This suggests that, for MacPherson, form is what instrumental music is 'about', the only means by which it can make sense to a listener. As the form of a particular piece can only be apprehended in its entirety after it has been heard, this could be understood as the equivalent to 'story' in Abbott's theoretical model of narrative (in that it is something perceived retroactively). In this formulation, any musical features that do not serve to delineate the fundamentally important structural features of a particular form might be considered 'supplementary events' and, therefore, not part of the 'story' whilst the 'constituent events' would be those features without which the form could not be understood. However, deciding which musical features constitute which type of 'event' is difficult unless there is some kind of standard model to use as a guide.

The rest of MacPherson's book goes on to demonstrate that, in his opinion, it is the traditional, conventionally defined musical forms identified as characteristic of Western European common practice tonal music that provide the models for successful musical structure. These forms are: binary, ternary, ritornello/rondo, theme and variation and sonata. This conception of form is the reason I have chosen to discuss MacPherson's book. It represents an approach to the understanding of musical form typical of the late nineteenth and early twentieth centuries in which the status accorded to these model forms is analogous to the narrative theory concept of 'master plots':

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[11] Stewart MacPherson, *Form in Music* (London: Joseph Williams Limited, 1915), pp.2-3

conventionally understood 'stories' that occur in or across cultures and that underlie or are manifested in a variety of 'narrative discourses'. Abbott defines the term 'masterplot' using the following description:

> '[Masterplots] are stories that we tell over and over in myriad forms and that connect vitally with our deepest values wishes and fears...To the extent that our values and identity are linked to a masterplot, that master plot can have strong rhetorical impact. We tend to give credibility to narratives that are structured by it...There are some masterplots, very loosely conceived, that would appear to be universal...the more culturally specific the masterplot, the greater its practical force...All national cultures have their masterplots, some of which are local variations on universal masterplots.'[12]

The potential parallels between the status of conventionally defined musical forms and the 'masterplots' of narrative theory are also suggested in the writings of the composer Arnold Schoenberg. For Schoenberg, the terms used to describe such forms could refer to 'the number of parts [sections or subdivisions]' (binary, ternary), 'the size of the parts and the complexity of their interrelationships' (sonata form) or the 'metre, tempo and rhythmic characteristics' of a dance form (minuet, scherzo, sarabande etc.).[13] The generic characteristics of such formal models can be understood as being analogous to 'masterplots' in that they occur 'over and over in myriad forms...can have strong rhetorical impact...[and]...give credibility'[14] to music that engages with them. This idea can be observed in Schoenberg's writings on form. As well as referring to conventional formal models,

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[12] Abbott, *The Cambridge Introduction to Narrative*, pp.42-43
[13] Arnold Schoenberg, *Fundamentals of Musical Composition* (London: Faber and Faber, 1970), p.1
[14] Abbott, *The Cambridge Introduction to Narrative*, pp.42-43

the composer states that 'in the aesthetic sense, form means that a piece is *organised*'[15], and that:

> 'Without organisation music would be an amorphous mass, as unintelligible as an essay without punctuation, or as disconnected as a conversation which leaps purposelessly from one subject to another. The chief requirements for the creation of a comprehensible form are logic and coherence. The presentation, development and interconnection of ideas must be based on relationship. Ideas must be differentiated according to their importance and function.'[16]

As in MacPherson's discussion of form, for this definition to be successful, there must be some kind of standard model against which to measure comprehensibility, which might explain why Schoenberg felt conventionally defined, traditional forms to be of such importance, giving 'credibility' to musical narratives. He conceived of these 'masterplot' forms as sectional, stating that 'appropriate subdivision facilitates understanding and determines the form.'[17] Repetition is described as equally important: 'Intelligibility in music seems to be impossible without repetition.'[18] For Schoenberg, repetition 'satisfies the desire to hear again what was pleasing at first hearing and simultaneously aids comprehension', yet contrast is also deemed necessary as it 'presupposes coherence' and is 'useful to avoid the possibility of monotony.'[19]

These principles also applied to the motive, which Schoenberg thought 'should produce unity, relationship, coherence, logic,

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[15] Schoenberg, *Fundamentals of Musical Composition*, p.1
[16] Ibid.
[17] Ibid.
[18] Ibid., p.20
[19] Ibid., p.119

comprehensibility and fluency.'[20] In his formulation, the motive was the 'germ'[21] of a piece, the characteristic figure from which all other figures in a given work derived. Unity in a piece was determined by repetition of the primary motive, but monotony is avoided through variation of the motive. To vary a motive but to preserve coherence, Schoenberg suggests that 'variation requires changing some of the less important features and preserving some of the more important ones' but concludes that 'determining which features are more important depends on the compositional objective' and that 'a variety of *motive-forms*, adapted to every formal function, can be produced.'[22] It seems that the 'compositional objective' referred to is a conventional 'masterplot' form whose sections each have a 'formal function' with the 'constituent events' that define it involving the repetition and variation of a motive or motives.

Schoenberg's discussion of the motive raises an interesting issue when looked at in terms of narrative as, although the forms themselves might be understood as operating in the manner of 'masterplots', the idea that the underlying coherence of a piece is created through the systematic development of one fundamental motif creates a possible tension between the sectionally, pre-conceived 'masterplot' form (ternary, sonata etc.) and its content (the 'organic' development of a 'germ' motive). This means that the fundamental, underlying 'story' might not be the 'masterplot' formal model itself but the developmental journey of the primary motive that is revealed through it; the possibility of tension arises as the two might not necessarily be congruent. Kofi Agawu touches on this matter when discussing Carl Dahlhaus's writing on the issue of musical form. Agawu states that:

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[20] Schoenberg, *Fundamentals of Musical Composition*, p.8
[21] Ibid.
[22] Ibid.

'[Dahlhaus] draws a distinction between architectural form and logical form. Form as architecture, complete with plans and designs, is enshrined in the music of the Viennese masters of the late eighteenth and early nineteenth centuries. Their outer forms (like sonata form) are subject to a prescribed pre-compositional plan. Logical form, by contrast, dispenses with the outer design of architects and assumes a form prescribed by the nature, will and destination of the musical ideas themselves. The result is a fluid discourse in sound that may or may not satisfy the prescriptions of architectural form.'[23]

This description contrasts a pre-defined model-based approach to form with a more 'organic' conception of structure, something that can also be observed in Schoenberg's suggestion that musical form should 'consist of elements functioning like a living organism'[24], a statement that might seem to be at odds with his high estimation of conventionally defined 'masterplot' forms. Yet he also suggests that composition itself is a process of revealing that which is already fully formed in a composer's imagination and illustrates this with an image from visual art:

'[A composer] proceeds, like *Michelangelo* who chiselled his Moses out of the marble without sketches, complete in every detail, thus directly *forming* his material.'[25]

Yet Schoenberg taught his students to begin composition by joining together 'musical blocks' which would 'provide the material for building larger units of various kinds according to the requirements of

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[23] Agawu, 'Formal perspectives on the symphonies', in *The Cambridge Companion to Brahms*, p.134
[24] Schoenberg, *Fundamentals of Musical Composition*, p.1
[25] Ibid., pp.1-2

the structure.'[26] It might be that he thought conventional 'masterplot' forms were, somehow, 'natural' and that, with practice, they could eventually be spontaneously conceived by a composer through the development of their 'germ' motives. The fact that he valued, above all else, eighteenth-century and nineteenth-century music from the Austro-German tradition suggests that he conceived of the conventional 'masterplot' forms as the logical, 'natural' result of correctly handled musical material. (Although his early 'atonal' music tends to eschew these forms, Schoenberg's later development of the twelve-note method was in part motivated by a desire to create a defined, systematic hierarchy that might enable him to compose once again using traditional musical forms).

The implication in Schoenberg's writing that conventional 'masterplot' forms are somehow, 'natural' and 'organic' is also found in MacPherson's discussion of form, such as when he states that 'consistent and logical design is...fundamental in the nature of things'[27]. The idea that form is both 'natural' and the 'story' in music is emphasised further by a quotation in which MacPherson makes an overt reference to narrative:

> 'Hence it is evident that if we are to be able to estimate, with any regard to correctness of judgment, any work we may be called upon to hear or study, we must take some account, at least, of these important elements of design and of structure, without which a work of art would be a shapeless mass of incoherence unable to tell its tale through neglect of one of the fundamental laws of Nature.'[28]

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[26] Schoenberg, *Fundamentals of Musical Composition*, p.2
[27] MacPherson, *Form in Music*, p.259
[28] Ibid., pp.4-5

This quote is interesting in that MacPherson describes the presence of definable form as allowing the music to tell 'its' tale, imbuing it with agency and conflating 'narrative discourse' with 'narrator'. Yet he also states that 'consistent and logical design' in music demonstrates a 'sense of conscious plan'[29], suggesting that the identification of (traditional, conventionally defined) form in music invokes an implied authorial 'voice' or, using the terms from the model of narrative theory, that the 'story' ('masterplot') revealed through the 'narrative discourse' also reveals the presence of the composer. This idea can be encountered in other examinations of conventional approaches to musical form. For example, in the introduction to *An Historical Approach to Musical Form* (1967) Ian Spink states that:

> 'Form is shape...musical shapes exist in time...the material of music is sound...The arrangement of this material...gives us the form, that is, the mode in which the composer's impulse is realised through the material.'[30]

Similarly, in *Form in Music* (1986), Wallace Berry attempts to answer the question 'What is form in music?' by proposing:

> 'It is the sum of those qualities in a piece of music that bind together its parts and animate the whole. It is the product of intellectual control over the musical ideas which bring a composition into existence.'[31]

Both of these quotations locate the presence of an implied composer in a piece of music through the perception of form. Like Stewart MacPherson, the authors in each book deal mainly with conventional

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[29] MacPherson, *Form in Music*, p.259
[30] Ian Spink, *An Historical Approach to Musical Form* (London: G. Bell and Sons Ltd, 1967), ix
[31] Wallace Berry, *Form in Music* (New Jersey: Prentice-Hall Inc., 1986), xiii

musical forms, although Spink highlights important theoretical concepts by looking at form in a relatively broad historical context (applying an evolutionary paradigm) whilst Berry draws on a more detailed analytical approach to a narrower range of examples. However, each author expands the traditional definitions of musical form in ways that have interesting implications when looked at in narrative terms.

Spink argues that 'structural principles and the forms which embody them...do not always coincide.'[32] An example of this is to be found in his discussion of composers' changing approaches towards structure in the second half of the nineteenth century and the beginning of the twentieth century. He outlines the generally accepted idea that, during this period, 'the thematic principle' gradually replaced tonality as the 'principal structural component'[33]. This suggests a possible tension between form and content in a 'masterplot' musical 'story' like sonata form as, prior to this historical period, it was the large-scale tonal patterning around a central tonic – dominant polarity that provided the form's 'constituent events'. Yet, as Spink demonstrates, sonata form can be still perceived as such despite the substitution of thematic principles for those of common practice tonality. In narrative terms, this implies that a sonata form 'masterplot' can be articulated through the relationships between 'constituent events' of different kinds. Berry also engages with this idea:

> 'A further sense in which form can be regarded has to do with certain basic processes...These processes may be summarized quite simply as to five fundamental formal contexts...The *process of introduction*...The *expository process*...The *process of transition*...The *developmental process*...the *process of*

[32] Spink, *An Historical Approach to Musical Form*, xii
[33] Ibid., xi

> *resolution*...it is primarily by these five processes that form may be defined...Such processes... may be manifest only limitedly or not at all in any given composition. Moreover, these processes overlap and coincide...within an *essential tendency conforming to a governing, fundamental condition of processive direction.*'[34]

In narrative terms, these processes could be analogous to 'constituent events' in that they involve musical 'entities' and because their presence, absence and relationships with one another are of fundamental importance to the 'story' delineated in a particular musical 'narrative discourse'. That Berry suggests such processes can overlap or occur simultaneously might also indicate that they can function as 'supplementary events' as well, depending on the 'story' that is (re)constructed through the 'narrative discourse'. The issue of what it is that is (re)constructed is touched upon by Berry when he writes that:

> '...[T]he comprehension of form is a challenge that engages the perceptual and cognitive powers of performer and listener in their interpretive roles in the musical experience.'[35]

In this sense, the performer could be understood as fulfilling the role of 'storyteller'. Yet in instrumental music, the relationship between the 'story' that the performer (re)constructs from the musical 'narrative discourse' (what they consider to be the 'constituent events' and how their performance articulates them) and that which is (re)constructed by a listener is potentially extremely complex. Berry highlights this:

> 'The coherence of syntactic order is of special consequence in an expressive medium whose *constituent units* [my emphasis] do not,

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[34] Berry, *Form in Music*, pp.403-404
[35] Ibid., p.422

as in literature and often in the graphic arts, achieve inner relationship by reference to objective experience.'[36]

For Berry, this coherence is derived from the recognition of conventional formal patterns analogous to 'masterplots' in narrative (such as binary forms, ternary forms, sonata forms etc.):

'...[A]ny plan which gives order and coherence to a musical structure must incorporate many of those principles which are at the roots of the traditional forms of music.'[37]

Yet he goes on to say that:

'The fascination of studying forms which depart from the norm in fundamental *plan* and *ordering* of events is the discovery and analysis of factors which are independent of standard methods'.[38]

This suggests that, in narrative terms, the 'story' revealed through a particular musical 'narrative discourse' will not necessarily conform to a 'masterplot' formal model, although it might be related in some way. Berry also discusses the idea that such unconventional approaches to form are more commonly found in connection with word-setting and programmatic music:

'Where a text or programme is important, the formal plan may rely in some degree on literary content as the determinant of major factors of structural continuity.'[39]

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[36] Berry, *Form in Music*, p.422
[37] Ibid., p.404
[38] Ibid., p.405
[39] Ibid.

This statement implies the interesting notion that the 'constituent events' of the 'story' in a musical 'narrative discourse' that uses a text might be a hybrid of both musical and non-musical elements. He then proposes another interesting idea when he suggests that:

> '...[P]rogrammatic and textural imagery and structure may be compatible with conventional formal procedures'.[40]

This means that a 'masterplot' 'story' revealed through a musical 'narrative discourse' can exist and be understood in parallel with a non-musical narrative discourse. Berry then actually employs the term narrative but only to describe programmatic, textual elements:

> 'Moreover, where narrative, extra-musical circumstances do influence and determine unconventional formal design, the procedures by which form is articulated...are relevant and basic.'[41]

This comment implies that there might exist fundamental types of musical 'constituent event' (more basic than 'masterplot' formal models) through the apprehension of which musical 'story' can be understood. Berry highlights one such type when discussing the presence of antecedent-consequent structures in music:

> 'This fundamentally significant relation has been seen to be of potential relevance to the organisation of conjoined motives, phrases and larger units...The formal property of antecedence-consequence is, indeed, pertinent wherever partitioning involves a second balancing unit which is in its active elements more decisive in content and in finality of arrival.'[42]

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[40] Berry, *Form in Music*, p.405
[41] Ibid.
[42] Ibid., p.402

The antecedent-consequent structure can be understood in narrative categories in that it might be considered an element of the underlying 'story' or the 'story' itself; in other words, it can occur at different levels in the 'narrative discourse' (for example, as a four-bar phrase and/or a whole movement). Such structures also allow for the creation of 'expectation' (something that can be either fulfilled or frustrated) and allow for the possibility of 'closure' (at different levels of the structure), both of which are important rhetorical devices in the construction of narrative.[43]

For Spink, the perception of musical form (in narrative terms, the designation of 'constituent events' that reveal the 'story') is shaped by another, even more basic principle of profound significance: repetition. He discusses how form is characterised by the structural use of repetition:

> '...[R]epetition is a unifying factor whatever scheme is employed. It is rather like the rhyme in poetry, which, while the poem moves onward, links up with what has gone before and outlines the architecture of the verse... [there are] two basic principles underlying musical repetition: that of immediate or direct repetition...and various types of alternate or indirect repetition...it is repetition which delineates the overall structure, and defines its proportions.'[44]

The importance of repetition in defining narrative is also highlighted by Abbott when he states that 'Repetition is one of the surest signs of the meaningful.'[45] This sentiment is echoed by Spink when he describes

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[43] Abbott, *The Cambridge Introduction to Narrative*, pp.51-61
[44] Spink, *An Historical Approach to Musical Form*, pp.14-15
[45] Abbott, *The Cambridge Introduction to Narrative*, p.195

the fundamental role of repetition in the comprehension of musical structure:

> '...[A]ll music consists of a succession of ideas more or less congruously relating to what has gone before. The more congruous the relationship, the more the element of repetition is apparent; the less congruous the relationship, the more the element of contrast is apparent. These twin tendencies are always present, balancing each other, and they apply not only to the melodic or thematic aspect of music, but to rhythm, tempo, dynamics and timbre as well. Separately and together these are areas in which repetition and contrast can operate. But in reality, repetition and contrast are not two but one, since each may be understood as the absence of the other.'[46]

Thus repetition can be understood as playing a fundamentally important role in articulating the 'story' in every kind of musical 'narrative discourse', from any culture or historical period; through repetition (and its absence) 'constituent events' and 'entities' can be emphasised to allow for the perception of the 'story', enabling the creation of 'expectation' (which can be frustrated or fulfilled) and the possibility of 'closure'. This is the case whether the 'story' revealed is a traditional, conventionally defined 'masterplot' formal model or something else altogether.

Narrative and 'post-tonal'[47] music

The nature of the relationship between musical 'story' and 'narrative discourse' is potentially even more problematic when such

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[46] Spink, *An Historical Approach to Musical Form*, x

[47] This is a potentially problematic term that refers generally to music that does not employ the principles of Western European common practice tonality as conventionally understood.

narratological ideas are applied to some 'post-tonal' repertoires. An important factor in this problem is the distorting or absence of the conventional hierarchical relationships of common practice tonality. Such a hierarchy provided a grammatical context within which a musical 'narrative discourse' could be both created and understood, allowing for a distinction to be made between 'constituent events' and 'supplementary events' and, as a result, the revelation of a 'story'. This might be formulated in a number of ways; for instance, a Schenkerian 'story' might involve a descent from a structural $\hat{5}$ to $\hat{1}$ whereas a sonata form 'story' might involve the return of a second subject in the tonic key. However, both formulations work in the context of a set of prior assumptions derived from a conventionally defined hierarchy and this context is fundamental to any decisions that might be made regarding the (re)construction of a musical 'story' in music that derives from/engages with common practice tonality.

In *Serial Composition and Atonality*, George Perle highlights this issue when he says:

> 'The composer working within the diatonic tonal system may take for granted the existence of specific properties of that system: a seven – tone scale, triadic harmonic structure, a key center, and so forth. The atonal composer, however, can take for granted nothing except the existence of a given limiting sound world, the semitonal scale. Aside from this assumption, it is impossible to state the fundamental conditions of atonality *in general*, except in a negative way, merely stipulating the absence of a priori functional connections between notes of the semitonal scale. Musical coherence requires additional limiting factors'.[48]

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[48] George Perle, *Serial Composition and Atonality* (London: Faber and Faber Limited, 1975), p.1

The lack of such an assumed background hierarchy in some 'post-tonal' music means that designating an aspect of a musical 'narrative discourse' a 'constituent event' or 'supplementary event' can present difficulties. Again, Perle touches on this when he states:

> 'The "rightness" of a particular note depends not upon its possible containment within a pre-established harmonic unit, as it does in tonality, but upon larger compositional factors whose meaning must be discovered within the work itself.'[49]

This seems analogous to the idea that 'story' is revealed through a given 'narrative discourse'. Therefore, in these terms, the status and function of a note in a 'post-tonal' musical work can only be fully comprehended through its relationship to the 'constituent events' that comprise the 'story' revealed through a given musical 'narrative discourse'.

It has already been noted that differentiating between 'constituent events' and 'supplementary events' in a 'post-tonal' context is potentially difficult; nevertheless, it is necessary if a 'story' is to be understood. Although the terminology used is different, Perle clearly engages with this issue:

> 'A central problem, that of defining the "thematic" material and differentiating it from secondary and transitional material without the benefit of the articulative procedures of tonality, is uniquely presented and solved in each atonal work...In general, the atonal "theme" emerges only in the course of the composition'.[50]

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[49] Perle, *Serial Composition and Atonality*, p.9
[50] Ibid.

If narrative terminology is employed, 'thematic material' might be understood as standing for 'constituent events' and 'secondary or transitional material' as standing for 'supplementary events'. Similarly, the idea that a 'theme' in some 'post-tonal' music 'emerges' during a piece resembles the process in which 'story' is revealed through a 'narrative discourse'. However, due to the lack of a pre-defined tonal hierarchy in some 'post-tonal' works, aspects of the music other than pitch hierarchy must be engaged with when defining and differentiating 'constituent events' and 'supplementary events'. One such aspect is intervallic patterning. For Perle:

> 'The integrative element [in 'post-tonal' music] is often a minute intervallic cell, which may be expanded through the permutation of its components, or through the free combination of its various transpositions, or through association with independent details. It may operate as a kind of microcosmic set of fixed intervallic content, statable either as a chord or as a melodic figure or as a combination of both.'[51]

In narrative terms, the 'intervallic cell' might be considered an 'entity'; the 'story' revealed through the musical 'narrative discourse' might relate to the identity of this fundamental intervallic idea with the different combinations and transformations of it operating as 'constituent events', whilst any material not related to it could be designated a 'supplementary event'.

The problem of differentiation between 'constituent' and 'supplementary' events in a musical narrative discourse is exacerbated in some 'post-tonal' music through the conscious avoidance of repetition. As mentioned previously, repetition is a

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[51] Perle, *Serial Composition and Atonality*, p.9

primary means of establishing and differentiating 'constituent events' in a musical 'narrative discourse', something that is potentially vital in music where the pitch relationships are obscure. Perle addresses this issue when discussing what he refers to as 'athematic' music:

> 'Certain so-called athematic works are governed by...[the principle] of nonrepetition...This procedure has sometimes been described as "perpetual variation"...a kind of musical stream of consciousness wherein the thread of continuity is generated by momentary associations. Microcosmic elements are transposed, internally reordered, temporally or spatially expanded or contracted, and otherwise revised, in a fluctuating context that constantly transforms the unifying motive itself.'[52]

In literature, the term 'stream of consciousness' is often associated with 'interior monologue', that is, the attempt to represent the freely associative thoughts of an individual (this could be a character or an implied or 'real' author)[53]; through such techniques, an underlying 'story' can be revealed (repetition is often employed to achieve this, for example, in the works of James Joyce and Samuel Beckett). In 'athematic' 'post-tonal' music that employs 'perpetual variation', the revelation of a 'story' could be problematic due to the lack of a clear pitch hierarchy and the absence of repetition. Perle mentions that although the procedures used in writing 'athematic' music resemble variation technique:

> 'In its usual sense, however, variation implies (1) the presence of some stable referential pattern, however temporary, which is identifiable as the subject and distinguishable from the modifications to which it is subjected, and (2) some delimitation of

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[52] Perle, *Serial Composition and Atonality*, pp.18-19
[53] Abbott, *The Cambridge Introduction to Narrative*, pp.71-79

> the range of variational possibilities. Neither of these conditions is characteristic of the athematic style'.[54]

This suggests that the 'story' revealed through an 'athematic' musical 'narrative discourse' is not defined by 'constituent events' related to the compositional procedures involved in its construction as these procedures are purposefully disguised or, at least, not emphasised. Therefore, in works of this kind, it is possible that the qualities that might be identified as differentiating 'constituent events' from 'supplementary events' will be found in aspects of the music other than its pitch content. For Perle:

> 'The use of highly individualized timbres, spatial relations, and rhythmic and dynamic details...operates in general...to formulate and delimit associations in an idiom wherein harmonic and melodic homogeneity tend to obliterate distinctions.'[55]

Yet, if such works are created using the principle of 'perpetual variation', this suggests that there is some kind of underlying unifying factor, no matter how disguised and obscure. Is it the case that we hear and understand this unity on some level? Might this be the 'story' that is revealed? Or is it the case that, even in apparently non-repetitive 'athematic' 'post-tonal' music, there will be reoccurrences of one kind or another and, in this context, such moments can have an important impact on a listener's perception of the musical 'narrative discourse'? Again, Perle recognises this issue when he says:

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[54] Perle, *Serial Composition and Atonality*, p.19
[55] Ibid., p.18

'In the perpetually changing tone weft of the "athematic" style, any recognizably consistent feature, regardless of its brevity, becomes a structural element.'[56]

Thus the appearance and reappearance of a certain melodic or harmonic interval or a durational, dynamic or timbral feature could assume the status of a 'constituent event' in a 'story' that might be revealed regardless of the composer's intentions.

Due to the absence of a prior hierarchy of harmonic relationships in some 'post-tonal' music, the horizontal dimension of the musical texture has to potentially bear the weight of structural articulation – in narrative terms, the 'constituent events' might be primarily linear. An important manifestation of this is the use of counterpoint in 'post-tonal' music. As Perle points out:

'The independence of the linear dimension in atonal music...has on occasion suggested the employment of a rigorous contrapuntal scheme as a means of organizing a total musical complex.'[57]

The use of procedures such as strict canonic imitation allows for the creation of 'constituent events' based on conventionally understood relationships between gestures of repetition, creating a hierarchy based upon the identity of a linear succession of pitches and or intervals. This, in turn allows for the revelation of a 'story' through the relationships between the 'constituent events' as defined by the imitative entries. In this way, 'post-tonal' music can refer convincingly to common practice tonal music and derive aspects of narrative definition from such references. Through the use of these procedures, 'masterplot' formal models such as fugue can provide the 'story' that

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[56] Perle, *Serial Composition and Atonality*, p.21
[57] Ibid., p.31

is revealed in a 'post-tonal' musical 'narrative discourse'. In narrative terms, the 'constituent events' that reveal the 'story' of a fugue are the characteristic structural repetitions within (the imitative textures of fugal exposition and entries) and between the sections (the large-scale reoccurrence of exposition material in fugal entries differentiated from the 'supplementary events' in the episodes). As with the idea that sonata form can be defined through something other than tonal relations (the thematic principle), the 'post-tonal' fugue demonstrates that a formal model associated with the conventions and assumptions of common practice tonality can, nevertheless, operate outside of those conventions and assumptions. Such contrapuntal procedures can, however, be employed in 'post-tonal' music to create musical structures that do not conform to 'masterplot' formal models. For example, canonic imitation can be used create underlying constructional frameworks that are not necessarily intended to be heard or understood as 'constituent events' or 'supplementary events' in the musical 'narrative discourse'. Of course, the idea that a linear succession of pitches can provide an underlying unity analogous to tonality from which a hierarchy of relationships (in narrative terms, 'constituent events' and 'supplementary events') can be developed is of central importance to the concept of serialism. For Perle:

> '[Serialism affirms] the availability of twelve notes while denying a priori functional precedence to any one of them...all the tone relations that govern a given musical context are referable to a specific linear ordering of the twelve notes of the semitonal scale...the premise of an ordered arrangement of the twelve notes, if it is to have any meaning, must somehow govern the essential

musical events in a consistent and logical manner, in spite of ambiguities and licenses.'[58]

Thus the identity of a series provides a fixed point against which material in a 'post-tonal' musical 'narrative discourse' can be differentiated (for example, material that is clearly related to the original form of the row might be understood as a 'constituent event' and material based on an inversion or a retrograde a 'supplementary event').

The principles of serialism were primarily developed by Schoenberg and his pupils and, despite being early pioneers of non-repetitive 'post-tonal' music these composers used the hierarchy provided by serialism to re-explore the use of conventional 'masterplot' formal models. Perle acknowledges this, stating that:

'Schoenberg and many of his followers...often depended upon the traditional forms to provide models for the overall organization of their twelve-tone works.'[59]

However, he also highlights a problematic aspect with regard to this approach: the non-thematic nature of the series. As a series is background assumption relating to the order of pitches, its pitch-classes can occur in any octave and/or as simultaneous vertical structures; therefore, it does not necessarily have a recognisable shape that can operate thematically. Unlike themes in a common practice tonal context which operate against the background of a pre-determined set of grammatical conventions, the series must, to some extent, establish its own conventions. In Perle's words:

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[58] Perle, *Serial Composition and Atonality*, pp.1-2
[59] Ibid., p.118

'The thematic operations that characterize the traditional formal structures in the major-minor system occur within a functional context that they do not determine. Among the distinctive features of the tonal theme the most important is its ordering of melodic intervals, an ordering that retains its individual character in spite of changes in mode, harmony, and tonality. The ordering of pitch relations in the set, however, establishes the frame of reference within which the theme must move. The theme of a twelve-tone work, therefore, is not in general characterized by its intervallic structure but by attributes that formerly performed a subsidiary, though essential, role: rhythm, texture, dynamics, color, shape'.[60]

One approach to formal articulation attempted by serial composers was to allow transpositions of the series to delineate important structural junctures in conventional 'masterplot' forms (for example, the second subject area in a sonata form would be marked by material based on a transposed version of the row that would later be recapitulated at the pitch-level of the material from the first subject area and would thus be analogous to a recapitulation in the tonic key in a conventional, diatonic tonal structure). According to Perle, another solution involved:

'The axiomatic transformation procedures of the twelve-tone system...employed as the basis of overall structure, of thematic operations or of contrasting formal elements.'[61]

In this formulation, structural divisions might be articulated through the use of material based on the inversion, the retrograde or the retrograde inversion of the series.

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[60] Perle, *Serial Composition and Atonality*, p.122
[61] Ibid., p.125

Perle draws a parallel between the compositional procedures at work in serial music and the processes involved in variation form, as he did when discussing non-repetitive (and non-serial) 'post-tonal' works. He seems to perceive a tension between the compositional processes of serialism and the formal structures in serial works when he says:

> 'In a sense, every twelve-tone work is in variation form, and the formal problem in each consists of the comprehensive organization of a series of variations through the superimposition of a special structural scheme, whether that scheme is externally analogous to the traditional forms or is a novel arrangement.'[62]

This calls into question the model of narrative when applied to some 'post-tonal' serial music. Although such works might demonstrate features that could be described as 'constituent events' and reveal a 'story' (such as a conventional 'masterplot' formal model), the underlying variation procedures involved in creating serial music potentially reveal another simultaneous 'story': the permutational logic of the series. This might be at odds with, or, at least, distort, the 'story' that the composer is intending to reveal through the musical 'narrative discourse' as what can be understood as a 'constituent event' in terms of the serial grammar – that is, any note within a clearly defined linear order – might be part of a 'supplementary event' in terms of the overall structural 'story' of the form.

This, in turn, suggests that serial music might require a different approach to form, an approach that is developed from the principles of the series rather than being imposed upon it, so that, in narrative terms, the 'story' revealed would relate directly to the material through which it is expressed. This idea was explored by Pierre Boulez

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[62] Perle, *Serial Composition and Atonality*, p.122

and other composers of his generation in an exploration of the principles of serialism that became known as 'total serialism'. In *Stocktakings from an Apprenticeship*, Boulez describes this new conception of serialism as:

> '...[T]he abolition of the horizontal–vertical opposition in favour of a view of the series as simply a way of giving structure, or *texture*, to musical space'.[63]

Total serialism sought a new synthesis and unity amongst the elements of music based on an extension of serial thinking. For Boulez:

> '...[T]he Viennese School considered the series exclusively as a matter of pitch and, as regards pitch, exclusively within the world of tempered chromaticism. Subsequent developments have shown that to see the series only from this point of view can easily produce distortions in the way it is used, since the other musical elements (acoustically speaking) are not governed by the same kind of organization as pitch. It was necessary, therefore, to generalize the principle for all the elements of the sound phenomenon, that is to unify and universalize the theoretical principle of the series. We know that, in order of importance, the attributes of sound include pitch, duration, dynamics and timbre. It is to these four constituents that the operation of the series has now been extended, by giving them numerical relations which can apply equally well to the interval of frequency, the interval of duration, the interval of dynamics, or the interval of timbre.'[64]

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[63] Pierre Boulez, *Stocktakings from an Apprenticeship*, trans. Stephen Walsh (Oxford: Oxford University Press, 1991), p.173
[64] Ibid., p.235

Whilst Boulez acknowledges that early exponents of total serialism tried to 'use the same hierarchy for the four elements, which sometimes involved a total absurdity'[65], he describes how composers employing these principles soon realised that:

> '...[T]hese phenomena need to be organized by different criteria...So, having generalized the principle of the series, composers started giving it a specific form for each of its musical constituents, a form in which the number twelve no longer has a preponderant role.'[66]

The emphasis on unity in this conception of musical material required a new approach to the concept of musical structure in the larger sense, and music based upon the principles of total serialism eschewed conventional 'masterplot' formal models. In Boulez's words:

> 'Modern serial thought insists that the series must not only generate the actual vocabulary, but must expand into the very structure of the work. It is thus a complete reaction against classical thought, which wishes form to be, practically, something pre-existent...[in total serial music] there are no preconceived scales, no longer preconceived forms – general structures into which thought is fitted. On the contrary, the composer's thought, using a predetermined methodology, creates the objects it needs and the form to organize them, whenever it has the urge to express itself. Classical tonal thought is based on a universe defined by gravity and attraction; serial thought on a universe in continuous expansion.'[67]

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[65] Boulez, *Stocktakings from an Apprenticeship*, pp.235-236
[66] Ibid., p.236
[67] Ibid.

This has implications for our understanding of the model of narrative theory when applied to music composed using the principles of total serialism. If this kind of music aims at a complete unity of all its elements, then, in narrative terms, all events in the musical 'narrative discourse' might be considered 'constituent events'. Therefore, the 'story' is not so much revealed as permanently present in all aspects of the music at all times. Also, the notional process through which 'story' is reconstructed from events in a given 'narrative discourse' is reliant on a sense of linearity ('constituent events', no matter how they are presented, are re-ordered in a logical linear chain of cause and effect). However, in the case of totally serial music, although the music necessarily 'unfolds' in time, the conception of form as 'a universe in continuous expansion' actually seems to suggest, paradoxically, something that will be perceived as static and potentially at odds with the unfolding of the music as it is heard. Perhaps this is how the model of narrative can be applied to 'total serial' music: the unfolding in time of a musical 'narrative discourse' that reveals through the uniformity of its 'constituent events' an underlying 'story' that is effectively in stasis.

In 1958, the composer György Ligeti published an analysis of Boulez's *Structures 1a* for Two Pianos (1952), an article that also served as a critique of total serialism; this analysis was published in the music journal *Die Reihe*[68]. In his book *György Ligeti*, Richard Steinitz discusses how, in another article in a later issue of the same periodical, Ligeti developed his arguments about total serialism, saying that the composer felt:

> 'The expansion of the serial principle so as to govern global categories, like register and density, led to the sacrifice of the very pitch systemisation that had initiated the process...Concentration

[68] Richard Steinitz, *György Ligeti* (London: Faber and Faber Limited, 2003), pp.84-90

> on textural density resulted in a decreased sensitivity to internal pitch relationships'.[69]

Ligeti called this 'an erosion of intervallic profile' and felt that when applying the unifying methods of total serialism 'it becomes increasingly difficult to achieve contrast. A flattening-out process has begun to absorb the whole musical form.'[70] He suggested that:

> 'This flattening – out process cannot be reversed...the finer the network of operations with pre-ordered material, the higher degree of levelling – out in the result.'[71]

He also likened the processes of total serialism to playing with different colours of plasticine, in that the more the separate colours are mixed together, the more the resulting mixture becomes a homogenous grey blob. As the revelation of 'story' through 'narrative discourse' relies upon contrast (so that the 'constituent events' that comprise the 'story' can be distinguished form the 'supplementary events') this 'flattening-out' creates potential difficulties when applying the paradigm of narrative to totally serial music. However, it might also be the case that a different approach to narrative is needed when thinking about the type of music produced using the techniques of total serialism.

As a composer, Ligeti was interested in the organizing principles of serialism, but more as a means to an end than an end in themselves, employing, for example, serial-related procedures to create fields of differing pitch densities in some of his music from the late 1950s and early 1960s. Steinitz discusses how, for Ligeti:

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[69] Steinitz, *György Ligeti*, p.93
[70] György Ligeti quoted in Steinitz, *György Ligeti*, p.93
[71] Ibid.

> '...[C]ontrasts of texture evoke visual and tactile sensations, pointing to similarities with the plastic arts, especially painting. This is less relevant to the narrative manner of tonal music, in which the present is experienced in relation to what has been heard, and to a conditioned expectation of the future.'[72]

Thus Steinitz directly engages with the idea of narrative in music and how it might be re-configured 'once form becomes dependant upon texture, colour and surface'.[73] This implies that the linear model of narrative has to be re-imagined when dealing with music of this sort, something that Ligeti acknowledged:

> '...[T]he succession of events is a mere exposition of something that is in its nature simultaneous...as one's glance wanders over the surface of a painting...These tendencies do not paralyse the flow of time itself but do succeed in completely dissociating it. In the literary or pictorial field they can be seen to correspond with the manipulation and interpolation of events (and thoughts) in Joyce's *Ulysses*, or with the 'temporalization' of space in Picasso's 'simultanistic' paintings.'[74]

In this conception, there is the potential for contrast (a 'succession of events') and, thus, a distinction between 'constituent' and 'supplementary' events. However, an underlying, linear, cause-and-effect 'story' is not necessarily revealed. In Steinitz's words:

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[72] Steinitz, *György Ligeti*, p.94
[73] Ibid.
[74] György Ligeti quoted in Steinitz, *György Ligeti*, p.94

'Temporal relations become spatial relations; interest arises from the way phenomena melt into each other; functions are superimposed at different levels of perception.'[75]

Ligeti thought the stasis that could be created through applying techniques of serial organization might be used to purposefully disrupt the sense of linear musical time. For example, his micropolyphonic music employs large chromatically saturated clusters spread over many octaves and strictly worked out contrapuntal patterns of pitch and duration that, when distributed amongst a large body of orchestral string players playing independent parts, are not heard as individual musical lines but instead create a macroscopic 'cloud' or 'swarm' of sound; this means that, in narrative terms, there is something underlying the musical 'narrative discourse' as we experience it. However, the underlying constructional aspects that generate the 'surface' musical material – the individual parts and lines – are not intended to be heard in themselves. In other words, they do not function as 'constituent events' in the 'story' that is revealed as the music is, at the pitch-level, an undifferentiated mass texture that is effectively static; instead, contrast is achieved through different textural densities and timbral transformations. The effect of stasis is what creates the sense of 'something that is in its nature simultaneous'; the contrasts in texture and timbre become analogous to 'one's glance wander[ing] over the surface of a painting'.

Steinitz suggests that for Ligeti a 'new feeling for musical form seemed to be emerging'[76] and the composer himself wrote that he wanted 'to try and achieve a compositional design for the process of change'.[77] Such a 'compositional design' would involve the use of textural density

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[75] Steinitz, *György Ligeti*, p.94
[76] Ibid.
[77] György Ligeti quoted in Steinitz, *György Ligeti*, p.94

and instrumental tone-colour as major structural factors. The resulting large-scale textural contrasts could be understood as comprising the 'constituent events' in the musical 'narrative discourse', revealing a 'story' involving the impression of movement around a musical object that seems to be always present and that, like the concept of 'story' in Abbott's model of narrative theory, 'appears both to precede *and* to come after [the musical] narrative discourse.'[78]

Narrative, musical form and time

As music is a time-based medium, the idea that 'narrative time' is shaped by events that can distort our sense of real or clock time is relevant when thinking about the relationship between music and narrative theory. It is also an idea that can be interestingly engaged when considering the music of the composer Harrison Birtwistle. For Jonathan Cross, Birtwistle's music is concerned with 'constructing new kinds of temporality'[79] and 'the construction of new kinds of musical time'[80]. Of fundamental importance to Birtwistle's music is a concept that is also fundamental to an understanding of narrative: repetition. The relationship between time, repetition and narrative is touched upon in a quotation from the composer:

> *'My attitude to time, if time is the right word, is concerned with repetition – about how repetition changes our perception of how things happen.'*[81]

Cross states that:

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[78] Abbott, *The Cambridge Introduction to Narrative*, p.18
[79] Jonathan Cross, *Harrison Birtwistle* (London: Faber and Faber Limited, 2000), p.14
[80] Ibid., p.36
[81] Harrison Birtwistle quoted in Cross, *Harrison Birtwistle*, p.158

'Birtwistle's music depends on repetition...repetition is employed at all levels of structure, from the repetition of the smallest units to form a regular pulse, through repeating devices or 'mechanisms' to the large-scale repetition of whole passages...On a much larger scale, too, repetition generates entire structures.'[82]

Cross identifies verse-refrain structures as a central formal category in Birtwistle's work. This kind of compositional procedure can be thought of as a kind of fundamental 'masterplot' 'story' in that it can be made manifest in many different ways in many different kinds of musical 'narrative discourse' and is identifiable in music from quite different musical cultures historically and geographically. This is because the 'constituent events' that comprise the revealed 'story' in verse-refrain structures are not defined by a prior set of musically specific conventions in the manner of common practice tonality or serialism, but through the act of repetition, through the statement and re-statement of material to assert identity. Thus structure is defined by extents of similarity and difference, a type of patterning that seems to operate at a deeper level than more culturally specific musical conventions.

However, Cross emphasises that exact formal repetition is rare in Birtwistle's music and quotes an illuminating analogy by the composer:

'There are things that keep repeating, but if you listen to them or look at them closely, they're not repeating. It's like the leaves of a tree. You know what an oak leaf looks like, but if you take one, then look at the next one, they're all different.'[83]

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[82] Cross, *Harrison Birtwistle*, pp.24-26
[83] Harrison Birtwistle quoted in Cross, *Harrison Birtwistle*, p.150

This indicates the importance of variation in Birtwistle's music, although Cross is keen to stress that it is variation of a particular kind:

> 'Birtwistle's procedures clearly owe far more to a...model of repetition/variation and associated forms (especially verse-refrain structures) than they do to a progressive...model of *developing* variation...The result is a non-developmental, non-directed music in which notions of ritual are central.'[84]

Birtwistle's verse-refrain structures tend to employ variation to create irregularity both in terms of individual sections and in terms of the large-scale structural patterning, or, as the composer himself says:

> 'There's one element that repeats, but when it repeats, it's never the same – it's always got an element missing. And then there's another one which is always the same, but it's never quite in the place you think it is...So there's this wild repetition going on, which is never what you think it is.'[85]

Therefore, a verse or a refrain can be represented by a small or large bit of music with greater or lesser amounts of variation as long as it is, in some way, identifiable. Yet there is also often a lack of a clear hierarchy between elements in Birtwistle's verse-refrain structures, something that Cross highlights by quoting another useful metaphor in which the composer discusses his music as a sandwich in which *'there's an ambiguity about what the bread is and what the filling is.'*[86] In other words, although a verse-refrain pattern can be understood as being present due to the presence of alternately repeating but

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[84] Cross, *Harrison Birtwistle*, p.24
[85] Harrison Birtwistle quoted in Cross, *Harrison Birtwistle*, p.170
[86] Ibid., p.156

differentiated material, there is not necessarily any clear indication of which material is the verse and which is the refrain.

For repetition/variation procedures of this kind to be apparent, there has to be some measure of similarity between elements, some means of identification through relative differentiation. Cross describes Birtwistle's music as 'highly ritualized...the same actions...are constantly being repeated yet are never quite the same'.[87] He also suggests that:

> 'There is not necessarily a direction or development through these different versions, reinforcing the...sense of timelessness in [Birtwistle's] work...he often talks of his musical materials as 'objects', and the listener 'views' them from different angles.'[88]

When discussing his work, Birtwistle identifies '*blocks of sound that are repeated from different angles but are never the same.*'[89] This idea is developed in another quotation by the composer:

> 'I have often alluded to my music...presenting musical ideas through the juxtaposition of "static blocks" or...objects...subjected to a vigorous invented logic via modes of juxtaposition, modes of repetition, modes of change.'[90]

For Birtwistle, it is through such processes that the nature of the material is revealed: '*By repetition, you can assimilate the total object.*'[91] This implies that the musical 'object' exists in an ideal form and that a listener is only 'viewing' particular facets of it from particular viewpoints. Birtwistle explores this concept when he says:

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[87] Cross, *Harrison Birtwistle*, p.19
[88] Ibid., p.17
[89] Harrison Birtwistle quoted in Cross, *Harrison Birtwistle*, p.172
[90] Ibid., p.18
[91] Ibid., p.165

> '[I] was interested in the notion that you could have a piece of music which only existed in the abstract. It's like looking at an object: every view is unique but the object exists irrespective of the way it's viewed. So it's the notion that this piece of music exists, just like an object, and what you can do is perform certain facets of it, examine it in different ways.'[92]

This indicates a potentially paradoxical atemporality in Birtwistle's music, the 'timelessness' identified by Cross, who, interestingly, also describes this quality as 'anti-narrative'.[93] Yet this conception strongly resembles the idea of 'story' in the model of narrative theory in that the musical object is revealed but, as we only hear particular instances of it from different angles, the listener constructs/re-constructs the object in their own minds. In this sense, the musical object has its own temporal/spatial logic that seems to exist outside of (or, in Abbott's words 'appears both to precede *and* to come after'[94]) the musical 'narrative discourse' in the same way that 'story' seems to pre-exist its manifestation in a 'narrative discourse'.

This paradoxical temporal logic is highlighted by Cross when he describes the composer's music as embodying 'stasis in progress'[95] and when he states that 'the notion of progress does not necessarily carry with it the sense of a linear development'.[96] In other words, the musical object revealed through Birtwistle's music is, theoretically, static, but the process of revelation is progressive or, at least, dynamic. Cross describes this as:

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92 Harrison Birtwistle quoted in Cross, *Harrison Birtwistle*, p.17
93 Ibid., p.14
94 Abbott, *The Cambridge Introduction to Narrative*, p.18
95 Cross, *Harrison Birtwistle*, p.32
96 Ibid., pp.202-203

'...[A] balancing of opposites without one collapsing into the other – thesis and antithesis without the unifying synthesis, that is, negative dialectics...The negation of traditional kinds of synthesis while preserving aspects of connectedness'.[97]

This suggests that there is a tension generated by the fact that the musical object is never actually heard in its idealised form but nonetheless creates an implied connection between often seemingly disparate material, the object being both present and absent. Cross indicates that this might be related to Birtwistle's compositional methods when he says that: 'It is the tension between model and realization that, in part, gives the work its dynamism'[98] and refers to a comment made by the composer:

'I do make "form schemes" (for pitches, rhythms...everything), but once started, the piece seems to establish a life of its own, which is more interesting than the original sketches.'[99]

This quotation indicates that there is literally some kind of musical object that pre-exists its realization in a finished piece, what is sometimes termed a 'pre-compositional' stage of working. For Cross, Birtwistle 'generates situations within which and against which he can operate'[100] an idea that the composer highlights in an interview from March 2011 for the BBC Radio 3 programme *Music Matters*. When speaking about the process of composition, Birtwistle says:

'There's the idea of a journey through – I use the metaphor of – a landscape...if you are in a landscape which is full of objects...you can then traverse through this landscape anywhere you like. I never

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[97] Cross, *Harrison Birtwistle*, p.32
[98] Ibid.
[99] Harrison Birtwistle quoted in Cross, *Harrison Birtwistle*, p.33
[100] Cross, *Harrison Birtwistle*, p.158

> start a piece and end up in a different terrain...it is one journey, and I could start again and write another piece doing that.'[101]

Here, the composer suggests a difference between the 'pre-compositional' stage ('landscape') and the piece ('journey'), that the initial sketches and concept create a world and that the piece is the result of engaging with that world; it also suggests that the final piece is only one of many potential pieces that could result from 'journeying' around a particular compositional 'landscape'. In narrative terms, the 'landscape' might function as another kind of 'story' that is capable of generating a variety of different 'stories', each with their own set of 'constituent events' and separate musical 'narrative discourses'. This engages with an important concept in narrative theory: diegesis. Abbott states that:

> 'Frequently, "the diegesis" is used to refer to the world created by the narration. Narratologists also speak of levels of diegesis. The "diegetic level" consists of all those characters, things, and events that are in the world of the primary narrative (i.e., having to do with the main story). There can be, then, other events and characters in the text that are not in the primary narrative at all but outside it in the extradiegetic level.'[102]

If this formulation is applied to Birtwistle's compositional practice, the 'diegetic level' could refer to the finished piece (the 'journey') whilst the pre-compositional 'landscape' could be understood as representing the 'extradiegetic level'. That the dynamic tension between the stasis of the 'extradiegetic level' and the progress of the 'diegetic level' is paralleled by a related tension between the piece

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[101] Harrison Birtwistle interviewed by Tom Service for *Music Matters* on BBC Radio 3 (First broadcast on Saturday, 19th March 2011), at 16 minutes 22 seconds

[102] Abbott, *The Cambridge Introduction to Narrative*, p.189

as composed and the piece as performed is also alluded to by Birtwistle:

> 'The problem with music is, as a composer, you're dealing with silence in some respects, and one thing that you can't calculate is how the piece speaks, you know, how it unfolds, how time works within the piece. And I've never been surprised by the moment, a chord or, you know, a relationship, or a rhythmic device maybe, which is in the detail of the piece. But I am surprised by how the piece speaks in time and how it makes sense or doesn't make sense or...it doesn't do what you want it to do, or it does what you want it to do...In the end, what is it that you're controlling, because you can't control everything. There is something within the nature of writing music...there are certain things you can't control.'[103]

This quotation suggests that, although a composer might intend to shape a musical 'narrative discourse' in a certain way and, through specific 'constituent events', reveal a particular 'story', the embodiment of the musical idea as performed physical sound can potentially reveal aspects not previously envisaged, shaping the perception of the 'story' (re)constructed from the musical 'narrative discourse' in ways and to extents that can never be entirely anticipated in the act of composition.

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[103] Harrison Birtwistle, *Music Matters* interview, at 13 minutes 49 seconds

Part 2: Discussion of pieces in portfolio of compositions

Introduction: Compositional methodology, context and narrative

The rest of the written section of my submission will focus on the music in my portfolio. I have decided against including in my submission all of the music written during the course of my PhD as some of the omitted pieces are quite short whilst others demonstrate shared approaches or explore ideas similar to those found in the pieces that are included. This is not to say that I believe the music not discussed in this manner does not work (three of the pieces that will not be looked at have been successfully performed). However, the pieces I have chosen to examine closely are those that I think most successfully embody musical and conceptual areas important to my work (there is a full chronological list of all completed pieces in the appendices).

For the purposes of this discussion, I have divided my portfolio into two broad categories: pieces with an extra-musical conceptual dimension and pieces in which the frame of reference could be described as meta-musical. In the first section, I have included pieces that employ a text or involve an overt reference to a non-musical aspect whilst the pieces discussed in the second section explore concepts that involve musical tropes and conventions of different kinds and in various ways. Of course, this distinction is fairly crude and it is arguably the case that all of the music in my portfolio could really be placed in a borderline category. Yet dividing my work up in this fashion has allowed me to highlight connections and contrasts between individual pieces and groups of pieces across the portfolio whilst also demonstrating why this distinction cannot really be definitively drawn.

Each piece will be analysed in terms of its constructional aspects and compositional processes but will also be looked at with regard to ideas found in my foregoing discussion of the relationship between narrative theory and music; I hope that this will indicate ways in which musical narrative can be understood not as something necessarily extra-musical but as a concept that embraces both musical and extra-musical aspects.

In the following discussion, octave designations are assigned a superscript number with middle C to the B above it being represented as C-natural^{4} to B-natural^{4}. All of the other pitches within the same octave carry the same superscript number and all of the other octaves described are numbered in relation to this (for example, the C three octaves below middle C to the B above is represented as C-natural^{1} to B-natural^{1} with the C three octaves above middle C to the B above represented as C-natural^{7} to B-natural^{7}).

Music that engages with extra-musical concepts:

Holmewood Study (Refrain 2) for Cello and Piano (2006-07)

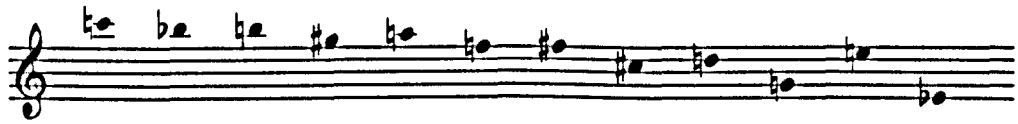
Much of the music in my portfolio has what might be termed an overt extra-musical aspect: a literary text that is set to music or non-musical objects and/or concepts that are important to an understanding of the work in question. In the case of *Holmewood Study (Refrain 2)*, the extra-musical aspect was an idea for a film for which I had been asked to provide music. The writers and director involved me from the earliest stages of the project so that the music might be more fully integrated with the conceptual world of the film. The idea was that I should create a piece of concert music based on the ideas, plot and script for the project (prior to it being filmed). This piece would exist as a standalone work but would also be used (in edited form) as a score for the film (a copy of the film is enclosed – see Appendix III). I had been eager to compose some music for cello and piano duo and thought that the potential sound-world of these two instruments would be appropriate for the project. The film, *Holmewood*, deals with a young man who returns to his family home upon the death of a parent and, alone in the house (called 'Holmewood'), experiences a series of disturbing incidents and dreams that may or may not be supernatural in nature. As the action intensifies, the events become evermore violent. Finally, a point of rupture is reached, reality merges with dream and the protagonist is overwhelmed.

After extensive conversations with the creative team behind the project and having received a copy of the script, I produced *Holmewood Study (Refrain 2)* a work of about eighteen minutes in length. The piece falls into thirteen sections and these sections define a loose and varied verse-refrain structure. Although there are no exact

sectional repeats, certain sections are related to one another through the use of characteristic musical material. The relationships and correspondences between the thirteen sections can be clearly illustrated by assigning a letter to each: bars 1-18=**A**; b.19-30=**A1**; b.31-52=**B**; b.53-64=**A2**; b.65-71=**C**; b.72-90=**A3**; b.91-99**D**; b.100-106=**C1**; b.107-134=**B1**; b.135-141=**A4**; b.142-160=**B2**; b.161-170=**A5/C2**; b.171-187=**C2/A6**. The **A** sections are, to some extent, the primary feature of the form as they recur most often, although the material within them is subject to the greatest amount of variation and as a result the correspondences between the **A** sections are not always as clearly apparent as those between the next most commonly occurring sections, **B** and **C** (although the material in these sections is subject to variation as well). The music in the **D** section acts as a central point in the structure and is only heard once. Therefore, although I have described the form as a verse-refrain structure, due to the use of variation this structure could be understood as, to some extent, underlying, or at least not immediately apparent. There is also no clear hierarchy established that would allow one type of material to be absolutely identified as the verse and another type of material to be identified as the refrain.

The sections are, to a large extent, defined and differentiated by their pitch content. The **A** sections all employ a twelve-note idea that descends in expanding intervals:

Ex.1:



This musical idea underpins most of the pitch content in the work. Although I would not call myself a serial composer, I have certainly

been influenced by aspects of serial technique in my music, particularly the creation of a kind of chromatic equilibrium in which no one note should sound as a kind of pseudo localised or long-range tonic. To further this aim, avoidance of the octave is part of the grammar of my music, although I do not eschew it entirely. Instead, I like to reserve its special and distinctive qualities for certain effects at important moments in my work (I have been particularly influenced in this respect by similar treatment of the octave in the music of György Ligeti and Harrison Birtwistle). I adopt the same approach to other elements associated with diatonic tonality, such as major and minor triad-based sonorities (although I do tend to use such sonorities less than the octave, reserving them for very specific pieces or effects).

In *Holmewood Study (Refrain 2)*, each section aims for a kind of twelve note equilibrium with forward motion generated by gradual revelation of the twelve-note idea and/or through durational and rhythmic means. The twelve-note idea is present in all of the sections except the **C** sections (this will be explained in due course); there is also a long-range chromatic ascent in the pitch-class level at which the idea is heard during the course of the piece. Thus section **A** begins with the idea starting on C-natural, **A1** with the idea in counterpoint starting on C-natural and C-sharp, **B** on D-natural, **A2** on E-flat and E-natural, **A3** on F-natural, **D** on F-sharp and G-natural, **B1** on G-sharp **A4** on A-natural, **B2** on B-flat and **A5/C2** on B-natural. However, although the twelve-note idea underlies the **B** and **D** sections, it is only in the **A** sections that it has a clear melodic/thematic identity and, as such, operates as a defining element in the formal sectional structure. This is another way in which I feel my compositional technique differs from that of conventional serialism: I want the twelve-note idea to be heard as a thematic, structurally defining unit instead of it being a potentially arbitrary ordering of the total chromatic. To this end, the intervallic

contour of my idea is a primary characteristic in this piece and other works.

In the initial **A** section, the twelve-note idea is presented as a kind of 'crab' canon between the cellist playing muted artificial harmonics and the pianist plucking the strings inside the body of the piano. The idea begins on C-natural^{6} in the cello and descends in two-note melodic units interspersed with the piano playing the twelve-note idea backwards, also in two-note units, but with both notes played simultaneously. The durational units in the cello lengthen incrementally by a crotchet upon each appearance, creating the effect of a gradual slowing-down. In contrast, the bars in the piano interpolations are the same length each time, although the entire duration is not filled until its sixth and final appearance and, when it is, it reveals a six-event durational pattern that begins with a quaver and lengthens by the same amount in each subsequent rhythmic event (also creating a sense that the music is getting slower). As in the cello part, the twelve-note idea in the piano is revealed gradually, but unlike the cello line, the piano starts at the end of the idea and works backwards, reiterating the two-note units already heard with the 'new' dyad always occurring as the final unit in the bar. Therefore, the initial **A** section itself operates as a small-scale verse-refrain structure between the instruments. The use of durational patterns in increasing values aims to dislocate a sense of regular metre, as if the events in the cello and piano were almost free floating and not governed by a shared pulse.

The relationship between the two instruments is developed in section **A1**, beginning in bar 19. The cello continues to present the twelve-note idea melodically in harmonics, starting once again on C-natural^{6}. However, this time the incremental revelation of the idea is different as

in every second bar of the section two new pitches are added to the line at the same time as an extra already sounded pitch is reiterated. This means that there are an increasing number of rhythmic events every two bars. These events are of progressively shorter durations relative to those in the bar preceding it but get longer incrementally within each of the bars in question; the bars themselves lengthen each time to accommodate the increased number of events (except the final bar which is increased in length but only has two events). Against this material, the piano once again plays the twelve-note idea in dyads on the strings inside of the instrument and again has a canonic pitch relationship to the cello part. This time it is a canon at the minor second as it starts on C-sharp^{6} and works to the end, revealing the idea in two-note units without recursions. The rhythmic events within the piano part are also of shorter values relative to the preceding bar in which it plays but they also get longer incrementally within the bars. There is also a verse-refrain structure at work in this section as the first note and, subsequently, the last note of the preceding section of the twelve-note idea in the cello part is heard as an accented five-crotchet duration interleaved between the gradually revealed idea in the cello and piano. Therefore, section **A1** retains the canonic pitch relationship, verse-refrain structure and lengthening durational patterns of section **A** but they are developed and reconfigured. Although the cello and piano play together for the first time, the sense of dislocated metre is maintained through the avoidance of rhythmic synchronicity between the instruments.

This relationship is developed further in section **A2**, which starts in bar 53. The twelve-note idea is once more presented canonically with the piano starting on E-flat^{3} and the cello on E-natural^{3}. However, the starting pitch for the cello part is actually transposed down an octave to accommodate a double stop, something that happens to other

pitches in the cello part during this section. The idea is that, for the first time, the cello should present the idea in two-note chords whilst the piano presents the idea linearly. Durationally, this section is the same as section **A1**: it lasts for the same number of bars and the events within the bars behave in the same way. However, this time the piano has the rhythmic material (including the refrain) that was previously in the cello whilst the cello has rhythmic material that was previously in the piano. A further point of development is provided by the inversion of the intervals from the twelve-note idea in the piano and also by the fact that, despite presenting the idea as a line, the presence of the sustaining pedal allows the material to be prolonged as harmony. Although the pianist is once again instructed to play inside the body of the piano, an extra edge is added to the sound through the use of plectra; the use of *marcato* articulation at a loud dynamic level in the cello also creates a sense of increased intensity.

There is an increased level of development in section **A3**, beginning in bar 72. This time, the twelve-note idea begins on F-natural and is shared between both instruments, undergoing inversion of its intervals and octave displacement in the cello part. There is also a important thematic development as the minor third interval between notes three and four of the twelve-note idea (in this case, C-sharp and E-natural) is inverted to become a major 6th and is repeated in the piano part, providing an accompaniment to the high cello line; this intervallic motif then passes into the cello part as the piano finishes off the idea. Therefore, although the idea is certainly present, it has been significantly transformed, a contrast to the other **A** sections that is underlined by the use of decreasing durational values in both parts and a more unbroken, overtly melodic cello line. Although the pianist plays inside of the instrument again, the alternation between plectra and fingertips creates a subtle timbral contrast to the other sections.

Section **A4** (bar 135) is significantly shorter than the preceding **A** sections and has a barer texture. The twelve-note idea is presented in the piano starting on A-natural[1] but with octave displacement of the pitch-classes so that the idea is presented as a rising then descending line, prolonged harmonically by the sustaining pedal. As with section **A3**, the durational values get progressively shorter and the interval of a major 6th between E-natural[4] and C-sharp[5] (the tenth and eleventh notes of the idea starting on pitch-class A) is emphasised, only this time the cello presents this motif. The use of plectra to scrape and strum the strings inside the piano in this section creates a brittle sound and the intended effect is that section **A4** should sound like a shorter, desiccated, sparser version of **A3**. Section **A5** (bar 161) is shorter and sparser again, presenting the twelve-note idea beginning on B-natural[6] and descending in displaced octaves, strummed inside of the piano with no use of the cello. Although the section is short (as the basic durational unit is a semiquaver), the durational values once again increase incrementally, as in sections **A-A2**.

It should be noted that the **A** sections generally get shorter in length, creating a kind of uneven telescoping effect across the piece. This is actually part of a general trend that works with the long-range rising of the pitch-class level at which the idea is heard (although not as systematically) to generate a sense of increasing intensity and tension. This creation of momentum through transformation is also employed in the different appearances of the **A** section material: there should be a sufficient amount of features in common (pitch-material, incrementally increasing or decreasing durational values, small-scale verse-refrain structures, use of canonic relationships, use of artificial harmonics and high-lying cello lines, use of internal piano sounds) enabling the **A** sections to be clearly and identifiably related to one another, but

there should also be a sufficient amount of development of these aspects so that a sense of teleological change is created.

The three **B** sections are intended to create a contrast with the **A** sections. Although they are based on the same twelve-note pitch-idea as the **A** sections, it is not really identifiable in the same way as, instead of being revealed as a linear thematic unit, it is split up to create distinct musical objects. The first **B** section, beginning in bar 31, is marked by the first moment of synchronicity between the two instruments as the pianist strums a D^4 with a plectrum inside the piano whilst the cellist plays the same note in double stopped unison natural harmonics. This represents the first event and also the first note of the twelve-note idea. Notes two and three of the idea constitute the second musical object: five C-sharp^3 – C-natural^4 dyads percussed inside the piano using brass glockenspiel mallets. After two more iterations of these objects, the third is introduced in bar 39: an unfolded chromatic cluster between both hands of the piano using notes four to ten of the twelve-note idea, the first time in the piece that any music has been played using the piano keyboard. These three objects are then each heard twice more in alternation before another musical object appears in bar 52: an F^1-F-sharp^2 dyad sounded by scraping the strings of the piano with a plectrum.

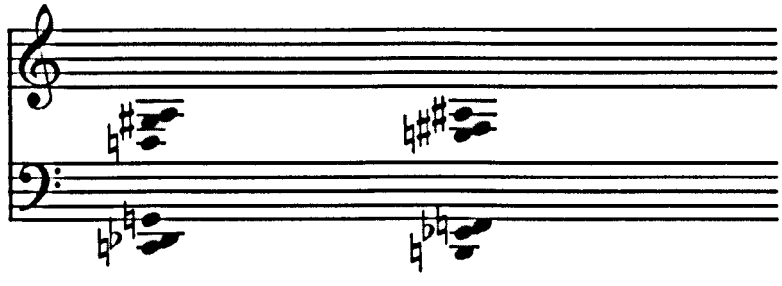
This alternation of distinct musical objects creates a kind of verse-refrain structure that is overtly static and ritualised; yet there is an aspect that changes during this section and that creates coherence with the **A** sections, namely, the use of progressively lengthening durations within and between the appearances of the second kind of musical object and between the three appearances of the third musical object (these lengthening durations contrasted with the regular duration of the reoccurrences of the first object). However, the

contrast provided by the **B** sections is perhaps even more striking. For example, the cello is used to sonically prolong and dynamically transform the notes from the piano part, whilst the violent, percussive effect of the section as a whole differs markedly from the preceding **A** sections. The more static, violent and ritualised verse-refrain structure within the first **B** section is manifested on the large-scale structural level by sections **B1** (bar 107) and **B2** (bar 142). These sections are more obviously related to one another through their use of the same alternating gestures (piano note sustained by the cello; percussed major 7th inside the piano; unfolded cluster on the keyboard) and thus function as somewhat static points of reference in the piece as a whole.

Yet there are some differences between the sections. For example, where **B** was based on units of five (the first object is a note held for five crotchet beats; the second event has five percussed chords; the third event happens in the time of five beats and is held for the same amount), **B1** is based on units of four and **B2** on units of three. Thus there is a progressive concentration between these sections that works within the intensification scheme of the whole work. **B1** and **B2** each have a new event added (a loud F^7 and a loud C-sharp^1-D-natural^1 respectively) and, although the durations in **B2** lengthen (as in **B**) those in **B1** get shorter whilst **B1** and **B2** do not follow the same note order as section **B**. Yet this latter point is something that actually unites the **B** sections (in contrast to the **A** sections) as they are not defined by the twelve-note idea itself but by the musical objects initially formed from the twelve-note idea. In this sense, as long as the musical objects are recognisable at each appearance, there is coherence between the **B** sections.

The only **D** section is designed as a central episode that contrasts with all of the other sections. It presents a homophonic chorale-like texture using plucked strings on both instruments. It is based on two transpositions of the twelve-note idea beginning on F-sharp and G-natural, but this is not intended to be at all apparent to the listener as the shape and order of the twelve-note idea does not feature. This section does not use expanding or contracting durational patterns either, and should stand in stark relief to the surrounding material. The **C** sections are, likewise, meant to create a total contrast to the **A** and **B** sections. The main feature of the **C** sections is a two-chord cadential figure, each chord containing six different notes which, until the final section, always appear in the same voicing and register:

Ex.2:



Sections **C** (bar 65) and **C1** (bar 100) both contain two appearances of this cadential figure with rapid open-string arpeggiations on the cello separating these appearances on each occasion (the four open strings of the cello conforming in register to the equivalent notes in the cadential figure); the initial chord in each section is also always prefigured with a rapid iterations of one of the notes of the chord whilst the last chord in each section is followed by rapid iterations of one its notes in a written-out *accelerando*. These repeated notes act as pivots from the section preceding the **C** section and into the section following; therefore, they are always the last pitch-class or the first pitch-class in the preceding or following sections, according to the

large-scale chromatically ascending pattern. Apart from this pivoting function, the **C** sections purposefully do not engage with the twelve-note idea that underpins the rest of the work as they are intended to embody a different conceptual world. However, there is a degree of coherence with the ongoing durational processes in the work as, on each consecutive appearance, the second of the two cadential chords is shortened in length, as is the cello interpolation. Also, the distinct identity and reoccurrences of the **C** sections mean that it functions like a refrain within the overall structure.

In fact, the cadential figure is actually an inversion of the main idea from a pre-existing piano piece (called *Refrain* – hence this piece is called *Holmewood Study (Refrain 2)*). I chose this because I felt that, if the material had an existence in another work, it would help it to embody a sense of 'otherness' I wanted it to evoke in this piece. Section **C2** (beginning in bar 167), does not behave like the other **C** sections in that the final section (bar 171) is actually a continuation of it. However, in this final section, the cadential figure is repeated, descending through the registers of the piano in durations of increasing length. Against this, the cello plays dissonant minor 9th dyads, each time employing notes from the cadential figure that have been purposefully omitted. Including the G-natural[2] in bar 170 that acts as a pivot note, the cello has all twelve notes of the chromatic scale and, although not using the main twelve-note idea as such, the expanding intervals of the cello part refer to this material. It is in this final section that octaves occur for the first time in the work, linearly in the cello part (as it rises up through its registers to a stratospherically high final C[7]) and amongst the sustained cadential chords descending through the registers of the piano in contrary motion to the cello part. The transparent quality of the resulting octaves lends an empty quality to the sound, the final peroration representing a

merging of the contour and grammar of the twelve-note idea with the 'otherness' of the cadential idea.

Having looked at what might be termed the intra-musical features of *Holmewood Study (Refrain 2)* (that is, features that can be understood as internally referential) I would now like to discuss how these features relate to the extra-musical aspects of the work. As mentioned earlier, the initial impetus to write the piece was generated by the film project *Holmewood*. It became clear during early conversations with the film makers that the sound design in the project would be central not only to the creation of atmosphere, but also to the plot as all of the potentially supernatural occurrences were to be associated with very specific sounds. As this sonic landscape was to involve obscure scraping, scratching and banging, I decided that I would like to employ extended playing techniques on the inside of the piano as this afforded me a variety of interesting timbres. The decision to write for cello was also suggested by its broad timbral possibilities: the range of possible harmonics, the more conventionally lyrical aspects of its sound, the aggressive lower register and double stops and the strong *pizzicato* that can be produced.

Once I had read the script for the project, I decided that the structure of the concert piece (that would later be used as the film score) should roughly parallel that of the film, that the episodes involving the main character, the disturbing incidents that happen to him and the dream sequences should be re-imagined as equivalent episodes in the musical form. Thus the **A** sections in the work relate to the main character, the **B** sections the disturbing 'haunting' incidents, the **C** sections the dreams of the main character and the **D** section the only time the protagonist leaves the house ('Holmewood'). The overall structure broadly equates to the three days over which the film is set:

day 1= **A**, **A1**, **B**, **A2** and **C**; day 2 = **A3**, **D**, **C1**and **B1**; day 3 = **A4**, **B2**, **A5/C2** and **C2/A6**. Although I had been sketching ideas for music based on a twelve-note idea in expanding intervals, the descending contour of the idea used in this piece was suggested by the fact that, in the film script, the disturbances in the house emanate from the basement and beneath the house, the character often shown descending a staircase. I wanted to encapsulate this important physical/metaphorical motif in my music and so embodied this descent in the main musical material.

As in the opening scene of the film, my initial **A** section establishes the main character: the twelve-note idea. All of the other **A** sections tend to relate to more reflective 'daytime' moments in the film whilst the major 6th motif that is picked out in some **A** sections relates to the phone calls the protagonist receives from his partner, the 'calling' character of this interval and its 'distant' presentation directly inspired by these instances. All of the **A** sections are characterised by the use of the twelve-note idea and, although there is some variety in the presentation of the material, there is always a process of revelation involved; the use of canonic pitch structures, plucked piano sounds, generally high-lying cello parts and dialogue between the instruments also characterises these sections. As the **B** sections are equivalent to the 'haunting' sequences in the film, their more violent nature sets them apart from the generally more reflective **A** sections. The ritualised, repetitive character of the **B** sections was suggested both by the recurring nature and pattern of these incidents (the main character 'locked' in a choreographic kind of violence) but also by the notion of being 'frozen' with fear. These sections are characterised a distinctive use of piano strings percussed by glockenspiel mallets and scraped by plectra and by the use of unison double stops and *crescendi* on the cello.

The **C** sections, being equivalent to the main character's dream sequences, are intentionally quite different to the surrounding music. As mentioned earlier, these sections do not relate to the twelve-note idea and derive from a pre-existing piece of music to help to emphasise their separate nature. They are also the only parts of the work in which the pianist plays entirely on the keyboard. The one **D** section is meant to parallel the moment in the middle of the film when the main character leaves the house and visits and childhood friend who is now a vicar of a local church. This action and setting suggested to me not only the regular pulse of this section (the only time in the piece that this happens), but also the hymn-like nature of the material; it is also the only section of the work played *pizzicato* by both players simultaneously. The final section of the work is equivalent to the final scene in the film in which the dream/nightmare of the main character merges with reality in a final, shattering climax. And, in the piece, the 'dream' music of the **C** sections is heard against an expanding pitch-sequence in the cello, the twelve-note idea merging into the 'dream'. The descending contour of the twelve-note idea is transferred to the descending presentation of the cadential 'dream' idea, suggesting the main character's descent into a state of mental breakdown; the extreme register and dissonance of the minor 9th double stops are intended to suggest the hysterical, terrified point of rupture between the 'real' world and the nightmare into which it collapses.

It is clear then that the conceptual world of the film and the script had a direct bearing on some of my decision making in the compositional process when writing *Holmewood Study (Refrain 2)*. As a result, it is possible to imagine that these extra-musical aspects might function as narrative in the piece, that they might be revealed through the musical 'narrative discourse'. However, I do not believe that this is possible on the basis of the work alone without any accompanying

information. The title does not in itself aid this as it does not indicate what 'Holmewood' is or how it relates to the music. The programme note that I have included with the score and that was available for the audience to read at the work's premiere will definitely provide some context, but although it gives a general outline of the action in the film and how the piece relates to it, it is not (and cannot be) specific enough to allow the details of the relationship between the music and the extra-musical aspects to be revealed. How, then, might narrative be understood as operating in this piece? It could be the case that the patterns of pitch and durational organisation function as the 'constituent events' that are revealed though the musical 'narrative discourse'. Yet I also think that this is improbable as the strict linear pitch-ordering present in the **A** sections is occluded (through the use of vertical structures and changing emphasis) or absent in the **B** and **D** sections and isn't likely to be revealed through listening alone; the durational dimension of the work is, likewise, written in such as way as to dislocate a sense of metre and, as a result, cannot really be followed.

However, I believe it is possible that the verse-refrain structures used in the work might well function as a kind of 'masterplot' story that is revealed through the musical 'narrative discourse'. The similarities and differences between the sections detailed above are rendered through pitch organisation, musical events, timbral and dynamic characteristics and durational patterns. As a result, I feel that the large -scale formal repetitions and correspondences between the contrasting sectional types will be apparent and that the 'story' of a varied verse-refrain structure could be revealed. I also feel that, although the long-range chromatic pitch ascent that is employed in the overall tonal planning might not be apparent to the listener, there could be a teleological dimension that is 'revealed' through the

musical 'narrative discourse'. This is because, although the similarities between the different types of section will reveal a verse-refrain structure, the fact that the sections are varied when they return could suggest movement away from a point of relative stability towards a different state, something that engages the rhetoric of expectation (this music has been heard before but it has been changed – will it return or not and, if it does, will it be as it was, as it now is or different again?). This sense of teleology might also be underlined by the general tendency for the sections in the work to become progressively shorter and the movement towards the extremes of dynamic and range in the final section. This sense of climactic arrival could also be emphasised by the inclusion in the final section of a hitherto excluded musical element: the octave.

Therefore, although I think that the extra-musical aspects and detailed musical patterning discussed above are central to the process of composition in *Holmewood Study (Refrain 2)*, I feel that they are, essentially, constructional, part of the fundamental material from which the piece is made and, as such, an integral part of it, but not necessarily operational on the level of musical narrative. That is to say, it does not matter whether they are apprehended in themselves or not as they are only what I am using to build the 'constituent events' in my musical 'narrative discourse'. In this sense, it is the larger gestures of the piece, those features (characteristic motifs, timbres, dynamics, internal structural patterns) that differentiate one section from another, and create a sense of identification between sections of the same kind, that are the 'constituent events' in the musical 'narrative discourse'; it is through this use of varied repetition, the creation of similarity and difference, that the 'story' might be revealed.

Sycamore for Counter-tenor and Symphony Orchestra (2007)

The next piece under discussion employs an intrinsic extra-musical component: the setting of an original text (a poem called *Sycamore*). This piece is actually intended to be the first of five movements from a planned larger work for solo counter-tenor and orchestra, a work that is itself conceived as a 'satellite'/study work for an operatic project. This project is still ongoing, although I decided to abandon work on it whilst I finished my PhD submission. The opera is to be based on the facts surrounding the murders committed by Jean-Claude Romand who, in 1993, killed his wife, children and parents. Romand, his family and his close friends all came from and lived in the Gex region of France, close to the Jura Mountains, bordering Switzerland. Prior to his crimes, Romand was thought to be an honest, upstanding citizen and family man, a doctor who worked on research at the headquarters of the World Health Organisation in Geneva. Only after the events of 9th of January 1993 was it discovered that his career and qualifications had been a total fabrication, a façade maintained for eighteen years and kept hidden from his family and friends. This deception was funded through the embezzlement of money entrusted to him for investment by his relatives and by his mistress. It was the prospect of imminent exposure that led Romand to the killing of his close family, the attempted murder of his mistress and an unsuccessful attempt at suicide.

I was attracted to this story and felt that it had potential for operatic treatment for a number of reasons, but particularly by the questions it raises concerning the nature of identity. It is apparent that Romand's life was based upon playing different roles, acting out the parts that he felt people expected him to play. These parts seemed to become so entwined with his personality that it became impossible to separate

the 'real' Romand from the many faces he outwardly exhibited. It seems that it was partly the fear of the nothingness, the void that would be revealed once the façade came crashing down that helped provoke him to commit murder. This fear was enmeshed with deep rooted feelings of guilt and shame that were present from childhood (and linked to his mother's suffering with cancer) and fed an underlying depression that manifested itself at key points in his life. The different roles that Romand felt beholden to play became further augmented by the identities he displayed during the trial, the perception of him in the mind of the public as seen through the eyes of the media and by the role of the good, penitential Catholic prisoner that he assumed once convicted. For me, the notion of identity that is present in this story has wider implications and resonances, touching on fundamental ideas of identity that affect us all: how we project different aspects of ourselves, either purposefully or unconsciously, depending on who it is we are trying to communicate with and what we feel or imagine their expectations are; how our lives are, to some extent, based on these projected identities and how fragile and ambiguous these projections are; how our imagining of the world around us can actually shape that world; how fantasy and reality, when entwined as one, can be ripped apart with cataclysmic consequences. Such issues seemed to me to allow opportunities for interesting musico-dramatic treatment.

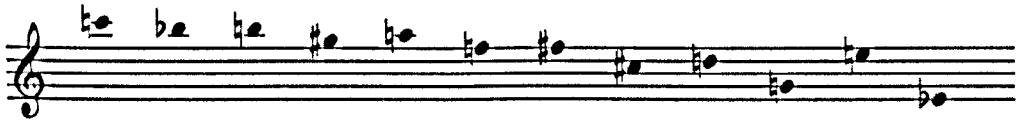
To produce this work, I am collaborating with a writer called David Hering, who is creating the libretto for the project. However, before I embarked on the opera itself, I wanted to explore some of the potential musical and extra-musical ideas that might be involved. To this end, I decided to write the 'satellite' work mentioned above, comprising four vocal settings surrounding a central instrumental interlude. The texts for this work have been created by David Hering

and are written from the perspective of the opera's central protagonist, Jean-Claude Romand. Each poem explores a different stage in this character's life and a different aspect of his personality, *Sycamore* being concerned with Romand's childhood and adolescence. Each poem has a specific and relevant setting and in *Sycamore*, this setting is the Jura Mountains (where Romand grew up) amongst the sycamore trees (the type most commonly found in the region and felled by local foresters like Romand's father); the protagonist is also accompanied by his dog (the only creature the young Romand felt he could talk to). The text explores Romand's taciturn character and refusal to show his emotions (influenced by his father), the contradiction between being taught not to lie but also not to betray his true feelings, his fear of shame, his guilt about feeling unhappy and the secret of his mother's depression, his guilt about being an only child (a younger sibling was conceived but did not survive) and a premonition of the horror that will ultimately unfold.

I decided that, as the text was written from Romand's point of view, the piece should use a solo voice and that it should be the same voice-type to be used in the planned opera, namely, a counter-tenor (I want the main Romand character to be sung by a male alto as this kind of voice has in it an inherent ambiguity that accords well with the subject-matter's central theme of ambivalent identity). As I wasn't sure what size of instrumental ensemble I wanted to use in the opera, I chose to try out some of my musical material in a large orchestral setting for this 'satellite' work. The standard symphony orchestra used in the piece is augmented by a solo concertino group of instruments that play with the vocal soloist and that are sympathetic to the sound and range of a counter-tenor.

I envisage that each movement in the whole multi-movement work will explore a different type of musical motion related to a central image in the poem being set. In the case of *Sycamore*, the image is the gradual descent of a sycamore seed falling from a tree, an idea that encapsulates the literal setting of the poem, the seemingly unstoppable sequence of events precipitated by Romand's actions and the notion that it was in his childhood that the seeds of the later tragedy were planted. The musical idea that corresponds to this image is the same twelve-note figure found in *Holmewood Study (Refrain 2)*:

Ex.3:



I chose to use this idea again as I was working on *Sycamore* just after *Holmewood Study* and I was interested in exploring some of the other compositional possibilities that this material might yield. I also felt that the nature of its intervalically expanding contour provided a good analogue for the image of a falling, spiralling sycamore seed and the falling of a felled tree. As the subtitle 'Passacaglia' is meant to suggest, this twelve-note idea runs like a thread in the orchestra throughout the piece. It begins on C-natural[8] in Violin I in bar 16 and descends through six octaves, finishing in bar 106. This version of the idea is heard eleven times (twice in each octave except the last) although each time it starts again, it loses a note from the beginning. Thus in bar 22 (Violin I), it begins on B-flat[7]; in bar 31 (Violin II) on B-natural[6]; in bar 42 (Violin II) on G-sharp[6]; in bar 53 (Viola) on A-natural[5]; in bar 62 (Viola) on F-natural[5]; in bar 72 (Cello) on F-sharp[4]; in bar 82 (Cello) on C-sharp[4]; in bar 89 (Cello) on D-natural[3]; in bar 94 (Double bass) on G-natural[2]; in

bar 101 (Cello and Double bass) on E-natural[2]. From bar 117, the idea is heard in full in a series of rhythmically augmented canonic entries throughout the orchestra across all six octaves; it is at this moment that simultaneous octaves are used for the first time as, until this moment, I have employed the same kind of twelve-note equilibrium heard in *Holmewood Study*. During the course of *Sycamore*, all of the surrounding contrapuntal material in the main orchestra is derived from this twelve-note line and the increasing complexity of the texture is related to the poetic idea of spiralling sycamore seeds falling onto the young Romand, proliferating until he is lost amid the resulting cloud.

It is intended that the steady descent of the fundamental line and the accumulation of orchestral complexity should create a sense of directed momentum and teleology; as a result, it might be best to describe the large-scale form of this piece as through-composed. Against this material is heard the music of the vocalist and concertino group. The fundamental orchestral line does not interact with the action of the text but provides the poetic/musical context/backdrop against which the poem is revealed through the music sung by the vocal soloist. This music is also based on the twelve-note idea, but in inversion:

Ex.4:

This presentation of the material fulfils two broad functions: it creates an overall contrary motion counterpoint to the descending orchestral line and embodies the poetic idea of the young Romand looking up

at the sycamore tree as the seeds fall down on him. This material is presented in a long-range chromatic ascent of pitch-class levels starting in bar 10 on B-natural[3] as in the example above. It then rises progressively during the course of the work, beginning on C-natural[5] in bar 32, C-sharp[4] in bar 44, D-natural[4] in bar 52, E-flat[4] in bar 73, E-natural[4] in bar 78, F-natural[5] in bar 84, F-sharp[3] in bar 90, G-natural[3] in bar 101, A-flat[4] in bar 107, A-natural[3] in bar 114 and B-flat[4] in bar 118. Thus during the course of the piece, the rising twelve-note idea begins on all twelve pitch-classes of the chromatic scale. This is similar to the use of the descending idea in *Holmewood Study* and the music for the vocalist and concertino group in Sycamore also shares with the former piece a tendency for utterances of increasingly shorter duration and increasing intensity.

The occurrence of the rising idea on a new pitch-class level coincides with the beginning of a new line of text in all but the setting of the penultimate line, a point of tension underlined by the temporary absence of the orchestral part. This gesture is meant to emphasise the fatal sense of isolation felt by Romand and is one of the few moments that the orchestral texture engages in expressing the text (although it does this through its absence). Direct engagement with the substance of the poem is otherwise almost always limited to the vocal line. This line is intended to sound somewhat erratic, exploring the extremes of the counter-tenor range. The large leaps often force the vocalist to sing across the 'break' between the vocal registers, creating an unpredictable, unstable sound that is meant to suggest the young Romand's teenage years as well as his inherent instability. To allow for this kind of vocal line and to aid the creation of some of the more traditional tropes of word-painting (for example, the large leaps on the word 'mountain' in bar 85), the rising twelve-note idea is subject to much octave displacement and unsystematic repetition, a flexibility

that runs also runs counter to the fundamental descending line in the main orchestral texture.

The singer is supported throughout by the concertino group which serves to double, prolong and blur the singer's line. This group does interact with the action of the text (for example, the sounding of the open strings of a violin on the harmonium in bar 23) but it also serves to suggest the psychology of Romand, creating an insulating 'bubble' in which the character exists. The only time that the orchestra in any way directly interacts with the words is when the two 'real' objects (the sycamore tree and his dog) are addressed by Romand. When this happens, the orchestra responds with two different presentations of the overall line. In bar 53, after the dog is mentioned, the twelve-note descending idea is presented as a texture in which the idea is broken up into two-note units and presented simultaneously in a rhythmic lattice texture; this happens again in expanded orchestral textures between bars 67 and 72 and in bars 98-101. In bars 86, 93 and 95, when the tree is referred to, the twelve-note descending idea is presented as a simultaneous vertical sonority. It should also be noted that the short prelude in the work presents this idea as both a lattice texture and a vertical sonority simultaneously, suggesting the presence of the two main objects in the poem aside from Romand, setting the scene for the action in the poem (although this can only be understood retrospectively as the associations between the text images and this music do not occur until later in the song).

The overall intentional separation between the orchestral material and the vocal and concertino group music is meant to embody the dislocation between Romand's interior existence and the outside world. In this way, the extra-musical narrative dimension might be understood as being revealed through the musical 'narrative

discourse'. The musical 'narrative discourse' itself might be said to reveal a 'masterplot' type of musical form in its employment of a constantly present, passacaglia-like musical line ('constituent event'). The sense of a goal-directed motion created by the systematic presentation of the pitch-material and the gradual accumulation of orchestral complexity also conforms to a type of teleology common in much Western European music, and the recurring presence of the 'dog' and 'tree' music might also function as 'constituent events' in a kind of verse-refrain structure.

However, the presence of the text allows for the revelation of the specific 'story' within the poem through the poetic 'narrative discourse' and the association of the music with this text might imply the generation of a 'musico-poetic' narrative discourse in which the 'constituent events' of the 'story' in both poem and music are revealed by and through each other (in a kind of interpretative feedback loop). Yet it is also the case that, without some kind of accompanying material describing the relationship of this piece (and the other planned movements) to the main idea in the opera, the full significance of the 'story' revealed in the poem and the music cannot be grasped. In this sense, without an explicit reference to the project of which this work is a satellite, the larger 'story' of the operatic 'narrative discourse' (for which this piece might itself be considered a 'constituent event') is not clearly revealed.

***Equivalents for the Megaliths*:**

Equivalents for the Megaliths IB: Swinside Study (Sunkenkirk) for Symphony Orchestra (2008)

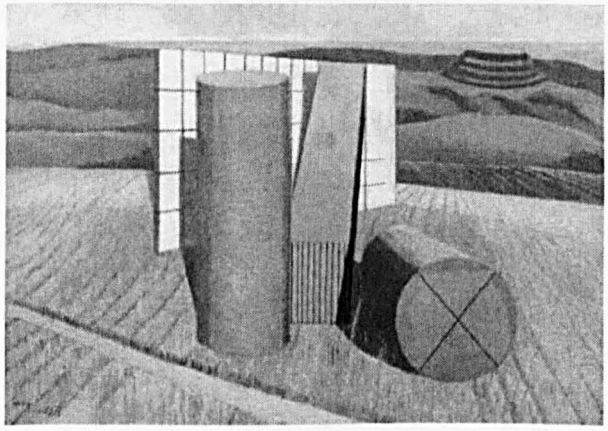
Equivalents for the Megaliths II: Tombeau/Explosion for Piano (2009)

Equivalents for the Megaliths III: Duloe Quartz for String Quartet (2009)

Equivalents for the Megaliths IV: Unquiet Noctume: The Whispering Knights for Wind Ensemble and Piano (2010)

I would now like to look at a group of works related to each other by a number of extra-musical and musical ideas. I conceive of these pieces as parts of an ongoing series, exploring different aspects of a shared conceptual world, musical material and compositional approach; as such, they can be performed separately or together in any combination, as circumstances allow. Each piece represents a musical response to a specific Neolithic monument: its physical and structural characteristics, the stories and myths that have attached to it over time as well as other aspects of its history and impressions gained from my engagement with it (I have visited all of the monuments in question). Whilst each piece has a title that refers to a particular monument, the title of the overall series, *Equivalents for the Megaliths*, is taken from 1935 a painting of the same name by the British artist Paul Nash:

Fig.1:



Equivalents for the Megaliths (1935) by Paul Nash (1889-1946)

This painting, and my desire to respond to it musically, was a generative factor in the creation of this series of works. It can, therefore, be understood as another aspect of the overarching extra-musical concept, linking the individual pieces together. I also wished to refer to this painting explicitly in connection with these pieces as I feel that it encapsulates my understanding of the relationship between the music and the monuments themselves, in that the musical structures are equivalent to aspects of the monuments and their existence. As in the painting, there is a potential incongruity between the equivalent (musical) objects and the reality of the megalithic objects themselves, a physical simultaneity re-imagined as a stylised analogue unfolding in time. Yet the passage of time, its effects upon the monuments and the violent disjunction between the ancient past and the perception of this past in the present (another idea suggested by Nash's painting) are ideas that present interesting possibilities for analogous musical realisations.

All of the pieces in the *Equivalents for the Megaliths* series are based upon the same fundamental pitch-material: the twelve-note idea descending and ascending in expanding intervals used in *Holmewood Study (Refrain 2)* and *Sycamore*. I chose to use this idea again as I felt that it still contained as yet unexplored compositional possibilities and that it could be used to embody different aspects of the conceptual world in the *Equivalents for the Megaliths* series. I also feel it is important that all of the pieces in this series should share the same fundamental musical material so that they are united in a manner analogous to the monuments themselves: as they are all made of stone, so they are all based on the same twelve-note idea. Yet as the type of stone varies between different monuments depending on the geographical location, so the treatment of the fundamental pitch-idea varies in different aspects of its presentation from piece to piece.

There are other fundamental similarities in approach between the pieces, particularly the manipulation of the twelve-note idea to create vertical sonorities, block-like musical structures that are meant to suggest the stones from which the monuments are made. However, the number of pitches within these structures relates to factors specific to the different monuments and so again there is both variation and coherence between the pieces in the series.

The pitch-idea is, fundamentally, intervallic and as such, the pitch-classes on which it occurs vary in (and within) each piece in the series depending on factors specific to the piece in question (such as instrumental resources and other aspects of the extra-musical context). It can be described in its descending form as follows: major 2nd down, min 2nd up, minor 3rd down, minor 2nd up, major 3rd down, minor 2nd up, perfect 4th down, minor 2nd up, perfect 5th down, major 6th up, minor 9th down; the ascending form simply inverts the direction of motion so that the same intervals occur in the opposite direction. From this shared pitch-idea a characteristic durational pattern is derived that occurs in all of the pieces in the *Equivalents for the Megaliths* series: 1 2 1 3 1 4 1 5 1 7 9 13. This pattern is developed from the intervallic contour of the twelve-note idea (in its descending and ascending forms), 1 being equivalent to the starting note and then subsequently to the step of a semitone, so that each number in the durational pattern is equivalent to the number of semitones in the corresponding interval in the pitch-idea. Like the pitch-idea, this characteristic durational pattern has multiple manifestations within and between the pieces in the series depending on the specific nature and requirements of the particular work. It can employ different note-values (sometimes in simultaneous asynchronous layers) and define the temporal distances between different kinds of musical event (from individual notes or chords in presentations of the

fundamental pitch-idea to the temporal distances between more complex and extended events).

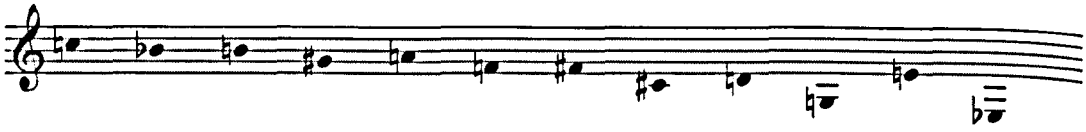
The musical events created form this material are themselves involved in processes of progressive revelation within and between sections in each of the pieces and the number of sections within each piece relates to the extra-musical context as well as to the nature of the musical material. These larger sections are clearly defined and then juxtaposed with one another so that the stratification and hard-edged nature of the linear and vertical musical events on the smaller scale is made manifest on the level of the overall structure. Timbre, register and texture are also employed structurally in these pieces, being used to help define and differentiate musical events and sections as well as having a crucial role in the overall shaping of the structure. Although timbral, registral and textural choices always involve, to greater and lesser extents, considerations relating to the particular instrumental resources used, in the case of this series of pieces such choices are also related to the extra-musical context in each work.

The first piece in the series, ***Equivalents for the Megaliths I: Swinside Study (Sunkenkirk)***, actually exists in three versions, although, it is the second version, ***IB*** for Symphony Orchestra (2008), which will be focused on in this discussion. I had initially written the piece for chamber ensemble but having finished it, I felt that some aspects might have been more effectively realised. I began a new version of the piece for an even smaller ensemble but, before I had completed this, an opportunity arose to write a work for the BBC Philharmonic Orchestra and it occurred to me that a large-scale instrumental realisation would serve the piece better. Although the main pitch-idea and broad outline of the work remained more or less the same as in the original version, there are durational expansions; the greater range

of colours meant that the textures could be reconfigured whilst the end of the work is significantly different (this orchestral version was premiered by the BBC Philharmonic Orchestra conducted by James Macmillan in October 2008).

The title of the piece refers to a stone circle on Swinside Fell near the village of Millom in Cumbria; structurally, the music falls into ten sections. As the work uses a varied verse-refrain pattern, I will label the sections to illustrate the relationships and connections between them: bars 1-24=**A**; b.25-32=**B**; b.33-56=**A1**; b.57-67=**B1**; b.68-91=**A2**; b.92-94=**B2**; b.95-107=**C**; b.108-131=**A3**; b.132-143=**B3**; b.144-164=**A4**. The idea that provides the pitch basis for the work is shown below:

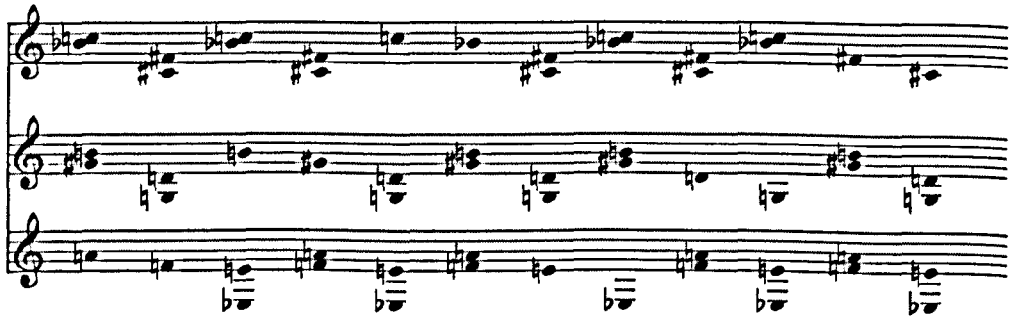
Ex.5:



Only the descending version of this intervallic idea is used in the piece as I wanted to engage with a Christian myth that became attached to the site. In the myth, the stones are the remains of a church pulled under the earth at night by the Devil, hence the circle is also known as *Sunkenkirk*. As a result, the descending contour of the pitch-idea is emphasised as a central feature of the whole piece.

In the initial **A** section, the pitch-idea (in the register shown above) is presented as a series of five-note chords

Ex.6:



The idea is presented in a homophonic texture as I felt that the dissonant vertical structures were analogous to the stones in the circle at Swinside. The decision to use five notes in each chord relates to the number of stones in the circle: fifty-five of an original sixty. Due to this, I wanted my chords to contain a number of notes that would divide into twelve, fifty-five and sixty. As there are five **A** sections in the piece in total and each of these sections contains a presentation of the pitch-idea as a series of twelve five-note chords, there are sixty 'stone' chords in the work as a whole, as there were sixty stones in the circle (although the final **A** section actually contains five different overlapping statements of the twelve chords).

Each **A** section reveals the twelve chords in sequence and employs the same 1 2 1 3 1 4 1 5 1 7 9 13 durational pattern. However, there are significant variations in each section. The initial **A** section uses the minim as the basic durational note-value as do sections **A1**, **A2** and **A3**. This first section presents the chords in close formation (in the register of the original linear version of the pitch-idea – see example above) with the starting note of the idea C-natural^{5}; the chords are always attacked by percussion and harp and sustained by wind and strings. In section **A1** the chords are presented in an open spacing and in different octaves (the top pitch of the first chord is C-natural^{6} and the lowest pitch of the final chord is E-flat^{2}); they are sustained whilst being simultaneously attacked at the onset of each chord with groups of five demisemiquavers. The harmonies are also unfolded as linear figures across three octaves (in the register of the chord in question and in both octaves above) in the woodwind and percussion; this layer is based on quintuplets against the groups of four in the main chordal presentation, so the relationship becomes canonic (as the upper layer moves more quickly than the lower, anticipating the harmonies). Section **A2** also presents the twelve chords in different

octaves, only this time they are in close formation and the sequence falls from the uppermost C-natural^{7} of the first chord to the E-flat^{1} of the final chord; the percussion, then cellos and double basses (employing 'Bartók' *pizzicato*), play the same chords but based on triplet groupings, sometimes coinciding with and sometimes anticipating the main chordal presentation.

In section **A3**, the chords are heard in fixed registers but with the twelve-note idea spread across almost eight octaves (from C-natural^{8} to E-flat^{1}); as well as making prominent use of harmonics, the notes of each chord are articulated in the percussion and harp based on the linear ordering of the pitch-idea. The final **A** section, **A4**, actually begins by presenting the pitch-idea as three four-note chords in increasing durations (three, four and five crotchets) and descending through four octaves (from C-natural^{6} to E-flat^{2}), before three overlapping statements of the twelve chords are heard. These statements (beginning in bar 147) are based on the note-values of quaver, semiquaver and quintuplet quaver and are heard in percussion, strings and brass (with *pizzicato* string doubling) respectively, spread in open voicings across five octaves (from C-natural^{6} to E-flat^{1}). The final two presentations of the twelve chords (bar 157 on percussion and strings, then on strings alone) are not based on the durational pattern but incrementally speed up and employ octave displacement across the registers. Another feature of this final section is the presence of the twelve-note idea heard as one simultaneous chord in the wind. This is most prominent from bar 160 when the chord is heard three times spread over six octaves; as the final chord sounds, the strings present the twelve note idea as a line descending from C-natural^{8} to E-flat^{1}. The fact that this section contains within it five presentations of the twelve chords (sixty in total) and a descent from the highest pitch in the piece to the lowest,

means that it acts as a concentrated version of the piece as a whole, as if the stone circle is seen as a totality for the first time, whilst also suggesting the image of the structure being dragged beneath the earth.

In contrast to the predominantly chordal presentations of the pitch-idea in the **A** sections, the interleaved **B** sections are essentially linear and always employ two versions of the descending pitch-idea, one beginning on C-natural and one beginning on B-natural; they all also use the characteristic durational pattern (1 2 1 3 1 4 1 5 1 7 9 13). The first **B** section presents the pitch-idea beginning on C-natural^{4} whilst the durational pattern uses the triplet crotchet as its basic note-value; beneath this, another version of the pitch-idea starting on B-natural^{2} and using crotchets is heard as a counterpoint, the resulting temporal disjunction creating a canonic relationship between the two parts. In bar 28, the same canonic material begins again in rhythmic diminution based on triplet quavers against semiquavers, resulting in a four-part texture; the material in this section is divided up amongst the low woodwinds, tuba and low strings playing *pizzicato*.

Section **B1** begins with two linear versions of the pitch-idea (beginning on C-natural^{8} and B-natural^{6}) heard simultaneously in the glockenspiel using the durational pattern based on semiquavers; this part actually prolongs a single-line heard in the piccolo created from a combination of both transpositions of the pitch-idea. In bar 59, this material overlaps with a new presentation of the pitch-material in a version of the idea starting on C-natural^{5} and based on quaver units. This upper line is harmonised by a version of the pitch-idea starting on B-natural^{3} but broken up into six dyads; it does not employ the characteristic durational pattern but its irregularly increasing durations do create a disjunction as they are based on quintuplet quaver

groupings. This material (heard on clarinets, lower strings and harp) overlaps with another presentation in bar 64 as the oboe plays the pitch-idea beginning on C-natural^{6} using the durational pattern based on triplet quavers whilst the cor anglais provides a lower canonic counterpoint beginning on B-natural^{4}; this latter line uses semiquavers but does not employ the characteristic durational pattern and both lines are doubled in the percussion.

In section **B2**, the relationship between the two versions of the pitch-idea heard in **B1** is reversed as a line beginning on C-flat^{4} and using the durational pattern based on quintuplet quavers is heard in the harp with a lower harmonisation on solo cello and double bass played *pizzicato*; this lower part divides the pitch-idea starting on C-natural^{3} into six dyads and uses increasing durations based on triplet quavers. The final **B** section, **B3**, explores the extremes of the orchestral register as a version of the pitch-idea starting on C-natural^{8} and based on crotchet units appears in the piccolo, glockenspiel and solo violin harmonics; this is heard against a version of the pitch-idea in canonic lower counterpoint beginning on B-natural^{2} and using the durational pattern based on triplet minims in solo double bass, contrabassoon and harp.

The only **C** section in the piece is also the only section that does not use the pitch-idea in its chordal or linear form, or the characteristic durational pattern. Instead, the material in this section is developed from the main idea but arranges notes one to seven and note ten to create an interlocking semitonal turn-like pattern of quintuplet semiquavers against sextuplet semiquavers. This gesture (beginning on C-natural^{6}) is presented as a refrain in the upper register of the orchestral texture in alternation with notes eight and nine of the pitch-idea arranged as a minor 9th dyad in the lower registers. The durations

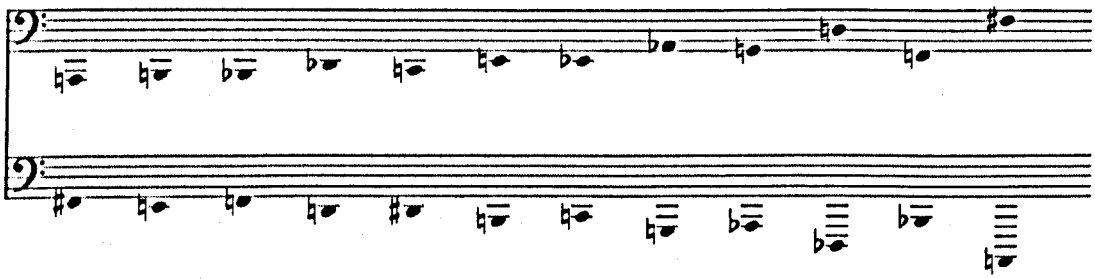
of these chords (and as a result, the gaps between appearances of the upper motif) get progressively longer, so that the effect is of a gradual slowing-down, as if these static musical objects were moving further and further apart. The scoring is almost *tutti* throughout this section with a full, twelve-note chord achieved in bar 105 (when the lower brass and double basses enter with notes eleven and twelve of the pitch-idea arranged as a major 7th dyad). The recurring, circular motion of this section is meant to function as a contrasting centre of the work; the fact that it uses ostensibly different material is analogous in some ways to the empty centre of the stone circle at Swinside, a space that might have been filled by the actions of human ritual.

The notion of ritual is central to the work as a whole and my aim was to create a piece in which the patterns of static, block-like musical objects could be imagined as stylised monoliths engaged in some kind of obscure ritual dance. The often aggressive articulations, the violent dynamics and the extremes of contrast used in the piece are a musical response to the hardness of the material used in the circle and the stark setting in which it exists. Yet they are also a response to what I feel is the violent interpolation of the ancient into my perception of the present, something that I was very aware of when visiting the site. This sense of temporal dislocation is also realised through the use of simultaneous durational layers employing different note-values, particularly in the **B** sections of the work. These ideas are, of course, not specific to the circle at Swinside but are amongst the larger themes explored in the *Equivalents for the Megaliths* series as a whole.

The second work in the series, ***Equivalents for the Megaliths II: Tombeau/Explosion*** for Piano (2009), is, so far, the only piece in the group to have been written for a single instrument. It is also the only multi-movement piece in the series, having six self-contained sections.

The number of movements relates to the number of stones in the monument that the piece is a response to: The Calderstones, the remnants of the oldest known human structure within the city boundary of Liverpool. Although arranged in a circle, this group of six sandstone megaliths is actually the remains of a Neolithic chambered tomb that was destroyed in the nineteenth century after years of neglect; the stones were placed in a circle outside of a local park until 1954 when they were moved into a greenhouse within the park, still in their circular formation. The title of the work refers not only to the destruction of the tomb but also to the tradition of memorial pieces associated particularly with French composers. Although each has its own title, the individual movements in the piece are linked together (and this piece linked to the other pieces in the series) through the use of the twelve-note intervallic idea (in ascending and descending form) and the characteristic durational pattern (1 2 1 3 1 4 1 5 1 7 9 13) used in *Swinside Study (Sunkenkirk)*. The two primary versions of the twelve-note idea are shown below:

Ex.7:



Although both versions of the idea appear in different registers during the piece, the descending version begins on F-sharp specifically so that it would finish on the lowest note of the piano when featured in the octave shown in the example above; the ascending version of the idea begins on A-natural so that the final note of one version is the first note of the other, allowing for the possibility of dovetailing between

both versions. I wanted to use both the descending and ascending contours in this piece as it is suggestive of both the sepulchral depths of the original tomb and the upward, outward force by which the stones were disinterred.

Despite the decision to write six movements being suggested by the number of stones in the monument (and the number six playing an important constructional role in the piece), it is not the case that each movement relates to a specific stone. What they do relate to are aspects of the monument's existence, operating as musical responses to both its imagined history and physical reality. The title of the first movement, 'Chamber', indicates the monument's function as a Neolithic tomb; to suggest depth, the descending version of the pitch-idea begins on F-sharp^2, the lowest starting point that is possible on the piano given the intervallic contour of the music. The idea is revealed incrementally in its linear form in the left hand, always within a crotchet beat, until all twelve notes are heard within this durational space; the occurrences of the revealed portions of the idea mark out the characteristic durational pattern in terms of whole bars: bar 1 =**1**; b.2=**2**; b.4=**1**; b.5=**3**; b.8=**1**; b.9= **4**; b.13=**1**; b.14=**5**; b.19=**1**; b.20=**7**; b.27=**9**; b.36=**13**). Although there are twelve notes in the final version of the pitch-idea, the thirteen iterations of the first pitch are related to the final part of the durational pattern.

This characteristic durational pattern is also operational in the right hand's music in the first movement; this uses the ascending version of the pitch-idea. This idea is heard five times in total (beginning in bars 10, 22, 31, 36 and 48); it is an octave higher in each successive appearance, is presented in chords of increased density (two notes, three notes, four notes five notes and six notes respectively) and uses note-values of decreasing length (triplet semibreve, minim, triplet

minim, crotchet and triplet crotchet respectively). Due to this process, the durational pattern is only heard in full in the fourth statement of the ascending material as this is the only statement to contain twelve chords. The rising version of the pitch-idea is a response to the image of the stones being pulled up and out of the tomb; the fact that the sequence of five-note chords beginning in bar 36 presents an ascending version of the twelve 'stone' chords heard in *Swinside Study (Sunkenkirk)* suggests (through association) the rearrangement of the tomb as a stone circle. The arrangement of the ascending version of the pitch-idea as the two six-note chords that end this movement takes the music to the upper reaches of the piano, whilst the number of notes in each of these two chords is also an oblique reference to the number of stones in the circle.

The second movement, 'Ritual', engages with the potentially spiritual significance that the tomb held for the prehistoric communities it served (there is no archaeological evidence for any local settlement in the area suggesting the tomb was part of a site specially defined by, and designated for, ceremony and burial). This movement has a verse-refrain structure and uses the ascending and descending versions of the pitch-idea. The ascending version of the pitch-idea is always heard as a recurring, twelve-note, arpeggio-like figure beginning on A-natural^{0}, rising through six octaves to E-flat^{6} before falling to end on F-sharp^{2} (in bars 4, 10, 17, 26, 37 and 53). The first and last pitches of this recurring figure are always heard as thirteen-note iterations (this gesture functions as a motif linking different movements together); as A-natural^{0} and F-sharp^{2} are, respectively, the last and first notes of the descending version of the pitch-idea, these two pitches also function as pivots between the different sections within the movement.

The descending version of the pitch-idea provides the basis for the sections in bars 1-2, 6-8, 12-15, 19-24, 28-35 and 39-51. The first of these sections presents the linear version of the descending pitch-idea in its lowest register, beginning on F-sharp^{2} and using the characteristic durational pattern based on demisemiquaver note-values. The subsequent sections present this idea in textures of increasing contrapuntal density with the durational pattern in note-values of increasing length: bars 6-8 have the pitch-idea in two parts beginning on F-sharp^{2} and E-natural^{3} with the durational pattern in semiquavers; bars 12-15 have the pitch-idea in three parts beginning on F-sharp^{2}, E-natural^{3}, F-natural^{4} with the durational pattern in triplet quavers; bars 19-24 have the pitch-idea in four parts beginning on F-sharp^{2}, E-natural^{3}, F-natural^{4}, D-natural^{5} with the durational pattern in quavers; bars 28-35 have the pitch-idea in five parts beginning on F-sharp^{2}, E-natural^{3}, F-natural^{4}, D-natural^{5}, E-flat^{6} with the durational pattern in triplet crotchets.

It should be noted that the durational pattern is not marked out by each line individually; instead, the durational pattern governs the whole texture and the pitch entries associated with a particular durational event will happen at some point within the space of that event (entries can sometimes coincide or happen separately). It should also be noted that the beginning pitches of the five parts so far discussed are the first five notes of the descending version of the pitch-idea, but with the intervals inverted or displaced by an octave, creating a kind of acrostic pattern. The final large section, in bars 39-51 begins by presenting these starting pitches before, from bar 40, presenting the descending pitch-idea in seven parts beginning on B-natural^{7}, C-natural^{7}, G-natural^{6}, A-flat^{5}, C-sharp^{5}, B-flat^{3} and A-natural^{2}, thus completing the acrostic pattern so that every note in the original version of the descending pitch-idea is represented as the starting

pitch of a new transposition of the same idea; this section also uses the durational pattern based on crotchets. I feel that the strictness of the contrapuntal patterning in these episodes as well as the almost obsessive repetition of the other recurring gestures in this movement suggest a kind of ritual behaviour whose exact meaning is obscure and, as such, relates to the original uses of the monument.

The title of the third movement, 'Marks', refers to the various shapes and patterns found carved upon the surface of the stones themselves: arcs, concentric circles, cupmarks, footprints, lines and single or conjoined spirals. As in the first movement, the durational pattern in 'Marks' is realised in terms of whole bars: bar 1 =**1**; b.2= **2**; b.4=**1**; b.5=**3**; b.8=**1**; b.9= **4**; b.13=**1**; b.14=**5**; b.19=**1**; b.20=**7**; b.27=**9**; b.36=**13**. Within this overall pattern, musical events occur that are meant to be analogous to the different kinds of marks on the stones; the fact that the musical events do not always occur at the beginning of a durational event is related to the separate, seemingly unconnected positioning of the actual carvings. All of these events use the descending and ascending versions of the pitch-idea with their original pitch-classes, but over a range of different octaves in different registers.

The events in bars 1, 4, 8 and 13 are all meant to be analogous to footprint marks and, as such, present the two versions of the pitch-idea as a series of five-note chords (note=toe). Bars 1 and 4 use the ascending version of the pitch-idea (beginning on A-natural) whilst bars 8 and 13 use the descending version (beginning on F-sharp); although the use of the pitch-idea to create five-note chords bears some similarity to the 'stone' chords in the first movement, the use of octave displacement and substantial re-voicing of the harmonies means this material sounds quite different. The event in bar 19 also

represents a footprint; that the chords in this bar all contain six notes refers to the fact that a carved footprint on one of the stones actually has six toes. The first two chords in this bar are based on the ascending version of the pitch-idea and the second two on the descending version; it should also be noted that all of these 'footprint' events occur on the **1** units of the durational pattern.

The event in bar 2 represents an arc, notes one to twelve of this figure presenting the ascending version of the pitch-idea (using octave displacement, starting on A-natural^{0} and finishing on F-sharp^{7}) whilst notes twelve to twenty-three present the descending version (starting on F-sharp^{7} and finishing on A-natural^{0}). The event in bar 6 is meant to represent a cupmark, a type of almost circular indentation commonly found on Neolithic monuments. To suggest this circularity, the ascending and descending versions of the pitch-idea are presented in note-against-note contrary motion counterpoint (the right hand has the ascending idea starting on A-natural^{4} dovetailing with the descending version starting on F-sharp^{7} whilst the left hand has the descending version starting on F-sharp^{3} dovetailing with the ascending version starting on A-natural^{0}). Contrary motion counterpoint is also used in the event in bar 11, a presentation of the pitch-idea as two-note chords moving in contrary motion that is meant to be analogous to the concentric circle markings in the stones. The first six triplet quavers present the ascending version of the pitch-idea beginning on A-natural^{5} but as dyads with the intervals inverted in the right hand against the descending version of the pitch-idea beginning on F-sharp^{2} also in dyads with the intervals inverted; the second half of the bar inverts this figure with the descending version (beginning on F-sharp^{6} and inverted) appearing in the right hand and the ascending version (beginning on A-natural^{1} and inverted) in the left.

The event in bar 17 relates to the straight lines carved on the stones and, as such, presents the descending and ascending versions of the pitch-idea in lines that cross each other in displaced octaves across the range of the piano (the descending version beginning on F-sharp^{7} in the right hand and ending on A-natural^{0} in the left whilst the ascending version begins on A-natural^{0} in the left hand and ends on F-sharp^{7} in the right, a pattern that is immediately repeated by dovetailing the last and first notes). The events beginning in bars 20 and 27 employ the descending version of the pitch-idea (starting on F-sharp^{4}) and the ascending version (starting on A-natural^{4}) respectively and are meant to be analogous to spirals. Each presents the pitch-idea incrementally but also recursively so that every time a new pitch is introduced the sequence moves back on itself and begins again, the pattern spiralling out and back in. The final event, starting in bar 36, is meant to represent conjoined spiral markings and so presents the same incremental and recursive presentations of both pitch-ideas heard previously, only this time as part of one musical gesture, alternating between right hand (ascending from A-natural^{4}) and left hand (descending from F-sharp^{4}); it should be noted that the musical events occurring on the **2**, **3**, **4**, **5**, **7**, **9** and **13** units of the overall durational pattern are all analogous to markings that are circular and/or linear in nature, and as such are related through essentially linear presentations of the pitch-idea. This movement ends with a sounding of the thirteen-note iterative motif using the highest and lowest starting and finishing pitches of both versions of the pitch-idea.

As the extra-musical context in the first three movements of *Tombeau/Explosion* engaged with an imagined prehistoric existence of the monument, so the final three movements relate to the monument's destruction and subsequent history. The music in these movements is starker and predominantly chordal, suggesting a

contrast between the potentially richer prehistoric life of the tomb and its more reduced circumstances as an 'artificial' stone circle.

The fourth movement, 'Exposure' is short and violent, depicting the stylised, violent disinterring of the stones. It uses the descending and ascending versions of the pitch-idea arranged as five-note chords in their most dissonant, clustered voicing (the five-note arrangement also suggesting the five-note 'stone' chords heard earlier). The full twelve-chord-sequence is not fully revealed until the final beat of bar 9, the descending version of the idea being heard in the right hand (top two staves) starting on G-flat^{6} and falling through nearly five octaves in total, crossing into the left hand on beat four of bar10. The ascending version of the idea is heard in the left hand (bottom two staves), also beginning on the final beat of bar nine and performing the opposite journey, crossing into the right hand on the final beat of bar 10; it is on this beat that both versions of the idea share notes in the same register and as a result, the right hand only has a three-note chord. The chords are presented as an incrementally revealed recursive sequence in crotchets up until the final beat of bar 9: 1/1 2/1/1 2 3/1/1 2 3 4/1/1 2 3 4 5/1/1 2 3 4 5 6 7/1 2 3 4 5 6 7 8 9. It is in this sequence that the characteristic durational pattern appears, but in the event-rhythm rather than the durational rhythm. To complete the pattern, the final full sequence from the final beat of bar 9 has thirteen events as the final chord is repeated.

The fifth movement is called 'Patina'. This refers to the film of pollution that slowly built up on the exposed stones during the years that they were displayed outdoors. To suggest the idea of something hidden under a surface layer, the pianist is asked to silently depress and hold the pitches of the linear version of the descending pitch-idea in the lowest register possible (starting on F-sharp^{2} and ending on A-natural^{0});

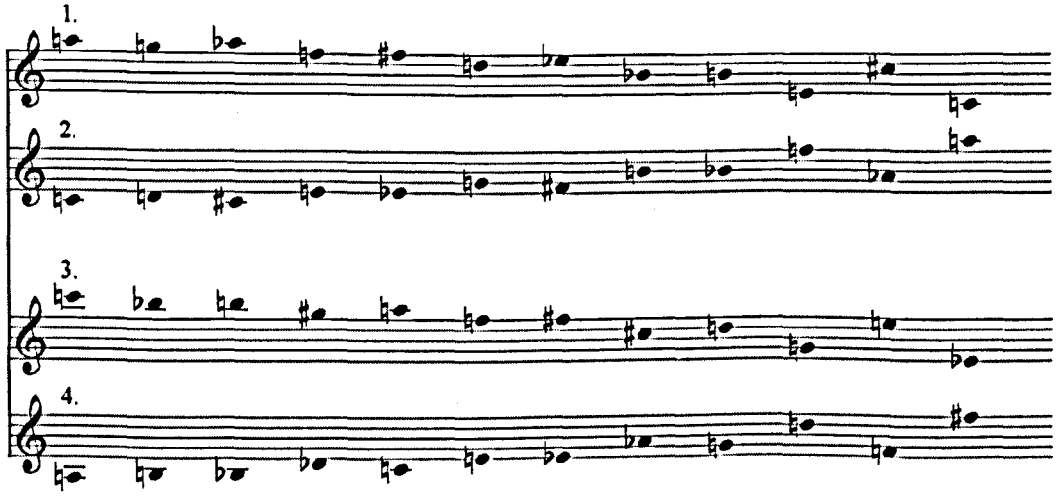
this line employs the characteristic durational pattern based on crotchets and runs throughout the movement. These notes are made to sound by the loud, percussive upper layer of the music. This presents the ascending version of the pitch-idea but arranged as two six-note chords (once again obliquely suggesting the number of stones in the circle); this begins with A-natural^{2} as the first note but moves into the lower octaves of the piano during the course of the piece. The chords in this upper layer of the music always occur after the notes in the lower line have been depressed; they reveal the durational pattern in quavers, although the final duration is cut off on the first beat instead of being held for thirteen quavers.

The title of the final movement, 'Vestibule', refers to the current location of the stones: the vestibule of Harthill Greenhouse in Calderstones Park, Liverpool. In this movement, the music is stripped down to its bare minimum, suggesting the fragmented state of what was presumably once a revered monument. The pianist is asked to knock against the body of the instrument to create a skeletal refrain. The thirteen iterations in this gesture are related to the other thirteen-note motifs heard in the first three movements (the prehistoric existence), as if this was a ghostly echo of the monument's past; unlike the other thirteen-note gestures, this version slows down and gets quieter as well as being unpitched. Between the appearances of this gesture, both versions of the pitch-idea are heard arranged in a sequence of three-note, four-note and five-note chords in close spacing, with the resulting six chords representing the six stones in the circle. The ascending version of the idea begins in bar 2 starting on A-natural^{3} but moves into a higher octave with each chord so that the highest note is F-sharp^{7}; the descending version of the idea begins in bar 14 starting on F-sharp^{3} but falls into a lower octave with each chord so that the lowest note is A-natural^{0}. The alternation between

the percussive gestures and the chords creates a verse-refrain structure that outlines the durational pattern in terms of whole bars: percussive gestures = **1**; chords = **2, 3, 4, 5, 7, 9**. However, the last unit of thirteen bars is not heard as such due to a final return of the percussive gesture. This final echo of the past indicates that this particular *Tombeau* is a memorial not to another composer, but to the monument itself.

The third work in the *Equivalents for the Megaliths* series, ***Duloe Quartz*** (2009) was written for, and given its first performance by, The Elysian String Quartet. The title refers to Duloe Stone Circle, the smallest stone circle in Cornwall, which consists of eight irregular white quartz blocks set in a pattern of alternating bigger and smaller stones. To reflect this, the structure of the piece falls into eight sections of unequal lengths: bars 1-12; b.13-20; b.21-32; b.33-36; b.37-60; b.61-68; b.69-80; b.81-96(a longer section is always followed by a shorter one until the final section, reflecting the relative difference in size between the stones). The work employs four versions of the intervallic pitch-idea used in the other pieces in the series which for ease of identification I will label **1-4** and write in a similar register (I will refer to the actual octaves used in the discussion that follows):

Ex.8:



The different versions of each idea are conceived of as pairs: **1**, **2** and **3**, **4**. It will be noticed that the relationship between the first pair, **1** and **2**, is the same as that between the two versions of the pitch-idea heard in *Tombeau/Explosion* in that the starting pitch of the descending form is the final pitch of the ascending form and vice-versa. The second pair, **3** and **4**, has the same starting pitch-classes as the first pair but each version in the pair moves in the opposite direction; due to the nature of the intervallic pattern in the pitch-idea, the final pitches in each version in the second pair do not correspond to the starting pitches of its partner. My idea was that the piece would perform a shift in pitch content analogous to a modulation, in that the first half of the work would use versions **1** and **2** of the pitch-idea whilst the second half would use versions **3** and **4**. The transition between the pairs happens in the fifth section (bars 37-60), the longest single section in the work and equivalent to the largest stone in the circle. The use of different versions of the pitch-ideas in the latter half of the piece was suggested by the notion that the work should be like a journey around the circle, that the second half of that journey is different than the first and, despite being circular, that the end of the journey is not the same as the beginning (the last stone, although next to the first, is distinct, different).

The first section of the piece (bars 1-12) begins by presenting version **1** of the pitch-idea as four loud three-note chords in the viola and cello, based on the linear ordering of the idea with A-natural^{4} as the starting pitch. The pitch-classes for this version of the idea were specifically chosen as they could utilise effective double stops on the viola and cello (especially featuring the C string of each instrument as the lower note in the minor 9th double stop produced by the last two pitch-classes in the idea). These four chords are then immediately repeated in retrograde before the violins enter with a re-voiced version of the

first three chords played quietly. Taken altogether, the first three bars also present the characteristic durational pattern used in the other *Equivalents for the Megaliths* pieces (1 2 1 3 1 4 1 5 1 7 9 13) in semiquavers. The points at which the lower and upper string instruments coincide in this opening section are marked by the use of octave doubling, a 'translucent' effect that is developed into the muted *non vib* material in the violins; this is a 'glassy' sound that is meant to be suggestive of the crystalline quartz from which the stones at Duloe are made (this image is also suggested more generally in the angular nature of much of the music). The final chord of the violins' four-chord phrase coincides with the viola and cello playing their opening sequence but in retrograde (from the last chord to the first then back to the last) and using octave displacement; the violins then take over with their phrase in retrograde but at in the same register as previously heard. Once again, both phrases together present the characteristic durational pattern in semiquavers. Bars 7-12 of this section then reverse the order of entries with the violins aggressively stating version **2** of the pitch-idea in four three-note chords but differently voiced with displaced octaves; this gesture is answered quietly by the viola and cello before the pitch-material is heard in retrograde as in the first six bars. In all, this opening section presents eight call and response gestures, a reference to the eight stones in the circle.

The second section (bars 13-20) is shorter than the first and only features version **1** of the pitch-idea, starting on A-natural[4]. This time, the twelve-note idea is presented as three eight-note chords (1 2 3 4 5 6 7 8; 9 10 11 12 1 2 3 4; 5 6 7 8 9 10 11 12). These chords are effectively a harmonic prolongation of the linear version of the idea in groups of eight; although employing double stops, the individual pitches enter separately and twice mark out the durational pattern based on triplet

quavers. The end of this section elides with the beginning of the third (bars 21-32), a longer section that presents versions **1** and **2** of the pitch-idea in two textural layers. Violin I and the cello play version **1** of the pitch-idea starting on A-natural^{6} and version **2** of the pitch-idea starting on C-natural^{2} respectively in contrary motion note-against-note counterpoint using the durational pattern based on quavers (the first note of the cello part is moved up by an octave to pivot from the previous section); this is the outer texture. The inner part of the texture is provided by violin II and the viola who between them present versions **1** and **2** of the pitch-idea as a series of four-note, double stopped chords in groups of eight demisemiquavers. Violin II begins with the first two pitches of version **2** starting on C-natural^{4} whilst the viola has the first two pitches of version **1** starting on A-natural^{3}; the versions of the pitch-idea are then swapped so that for the next entry, violin II has the third and fourth pitches of version **1** whilst the viola has the third and fourth pitches of version **2**. The versions of the pitch-idea continue to swap around in the same alternating pattern between the two instruments, creating another contrary motion relationship inside of that in the outer texture. The use of both versions of the pitch-idea in the outer and inner parts and the delayed entry of the latter means that there is a canonic relationship at the pitch-level between the violin and cello lines and the violin II and viola parts; although the characteristic durational pattern is not featured in the violin II and viola music, the durational space between their entries increases by a crotchet each time, thus embodying the overall principal of expansion present in the pattern.

The fourth section (bars 33-36) is the shortest of the eight and is also the only one to feature use of *pizzicato*. As the second section only featured version **1** of the pitch-idea (whereas the first and third sections featured versions **1** and **2**), the fourth section only presents

version **2** (starting on C-natural^{2}). Also related to the second section is the arrangement of the pitch-idea into three groups of eight notes. However, this time the pitch-idea is subject to octave displacement and, as double stops are not always used, the eight-note groups are not presented as eight-note chords. Instead, the texture is comprised of a rhythmic lattice with groups of six, five, four and three notes heard against each other. The characteristic durational pattern is present in the alternation between pitches in the cello part (in bar 33 and beginning again in bar 35) and, at first, in the other parts, although the entire pattern is never fully completed; the unfolding of the pitch-idea is repeated in bars 35-36 with a slightly altered voicing.

The next section, the fifth (bars 37-60), follows on directly and is, as previously stated, the longest section in the work. The first four bars present version **1** of the pitch-idea as three four-note harmonies; the pitches enter one after the other in their original linear order, so that the harmonies can be understood as prolongations of the pitch-idea that blur into each other (note into note and chord into chord). This version of the pitch-idea begins on A-natural^{5} in violin I but the viola and cello displace their pitches into the octave below, a separation of register that remains consistent throughout this section. Bars 39-42 present version **2** of the pitch-idea, however, this time the order is changed so that the ordering of the pitches in the four-note groups (beginning in violin I on E-natural^{4}) is: 4 3 2 1; 8 7 6 5; 12 11 10 9. Bar 43 marks the point of transition (or modulation) to the other versions of the pitch-idea as the music from this bar to halfway through bar 46 presents version **3** of the idea in its original order, beginning on C-natural^{6} in violin I. Version 4 of the pitch-idea is heard for the first time from the third beat of bar 46 in violin I. Starting on D-flat^{5}, the pitches are once again introduced in the altered linear arrangement 4 3 2 1; 8 7 6 5; 12 11 10 9.

The characteristic durational pattern is present in this section in all of the string parts. Violin I has it most obviously, with the minim as the basic note-value. Yet it is also present in the durational gaps between the sounding of the pitches in each instrument: violin II enters one semiquaver after the initial entry by violin I with its second entry two semiquavers after violin I and its third one semiquaver after. Thus the durational pattern is marked out in the number of semiquavers between violin I playing the first note of a new four-note harmony and violin II playing the next note until, in bar 55, the durational gap is thirteen semiquavers and the pattern is complete. The viola and cello enter in consistent multiples of the same durational gap but following the entry before them, not violin I. Thus the viola has a durational gap twice that of violin II, entering two semiquavers after violin II in bar 37, then four (2 x 2 semiquavers) on its second entry then two again until, in bar 56, it enters twenty-six semiquavers after violin II (2 x 13 semiquavers) and its pattern is complete. The cello has a durational gap three times that of violin II, so it enters three semiquavers after the viola in bar 37 until, in bar 59, it finishes its durational pattern by entering 39 semiquavers after the viola (3 x 13 semiquavers).

The sixth section is significantly shorter than the previous section, lasting from bar 61 to bar 68. Violin II and the viola present, respectively, version **4** of the pitch-idea starting on A-natural[4] and version **3** of the pitch-idea starting on C-natural[4] in contrary motion note-against-note counterpoint; both versions of the pitch-idea present the intervals in inversion and both use the characteristic durational pattern based on triplet crotchets. The only alteration in the pitch-idea occurs in bar 64 when the players hold the pitches they've reached as, at this point, the two versions of the idea have both pitches in common. This inner part of the texture is surrounded by violin I and the cello playing, respectively, versions **4** and **3** of the pitch-idea in contrary motion

double stops. This texture represents a reversal of that found in the third section and here, as there, the pitch relationship between the outer and inner parts is canonic, with violin I and the cello presenting the pitch-material in the same register as violin II and the viola, but after a delay. As in section three, the whole pitch-idea is not heard in all of the parts (violin I and the cello stopping on a bare fifth dyad in octaves) but unlike in the earlier section, the durational gap in the canon always remains the same. The seventh section (bars 69-80) follows straight on from the sixth. Like the second section, it presents only one version of the pitch-idea, in this case, version **3**; this begins on C-natural[3] and is arranged as three eight-note chords (1 2 3 4 5 6 7 8; 9 10 11 12 1 2 3 4; 5 6 7 8 9 10 11 12) that enter one pitch at a time, marking out the durational pattern in quavers. Unlike the second section, this passage begins at the bottom of the texture and moves upwards as well as employing octave displacement to give the harmonies an open spacing; this is also the only section to use *tremolo* effects.

The final section (bars 81-96) begins with all of the instruments playing version **3** of the pitch-idea in double stopped, inverted intervals in four different octaves; they also present the durational pattern in rhythmic unison based on triplet minims. This lasts for four bars until, in bar 85, version **4** of the pitch-idea is heard, also with the intervals inverted, in double stops and in four different octaves. However, it is in this bar that the parts start to move out of rhythmic synchronicity as the viola has the durational pattern in crotchets whilst the other instruments continue with the pattern in triplet minims that started in bar 81. In bar 89, violin II restarts the pitch-idea using the durational pattern in triplet crotchets, then in bar 91, violin I restarts the pitch-idea with the durational pattern in quavers. Only the cello continues the pattern in

triplet minims from bar 81 until the end and its last two pitches form part of the final, eight-note chord.

The number of pitches in the final chord is another reference to the number of stones in the circle, but there are also references to the monument in terms of correspondences between the different sections. It has been mentioned that the second and seventh sections present only one version of the pitch-material and in a similar manner whilst the use of two versions of the pitch-idea simultaneously in contrary motion, canonic textures is apparent in both the third and sixth sections. There are also links between the first and eighth sections in that both employ aggressive double stops and present two versions of the pitch-idea separately (**1** then **2** and **3** then **4** respectively). In this pattern of large-scale structural links, the fourth and fifth sections are the only two left and are also the only two directly adjacent. Although they seem to be quite different, it is in this extreme difference that they are united, being the shortest and longest sections respectively; they also display the only use of *pizzicato* and harmonics, distinguishing them from all of the other sections. These large-scale structural correspondences create a sense of circularity in the overall shape of the work. Yet at the same time, these correspondences are undercut by not being exact and by the fact that all of the sections are distinguished from one another (to greater and lesser extents) by the use of contrasting textures and playing techniques. This creates a paradoxical sense of uneven symmetry related to the nature of the circle itself and the experience of walking around it.

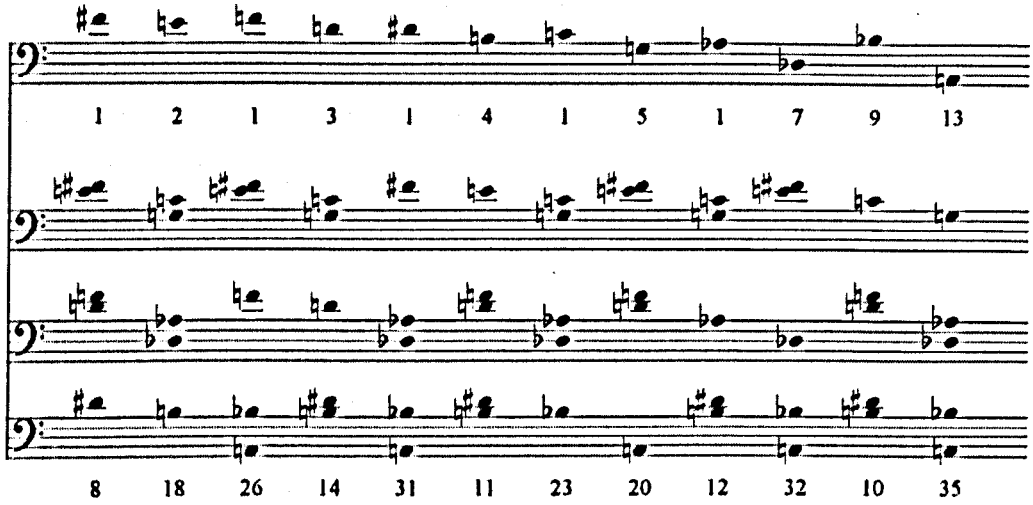
The final work so far in the *Equivalents for the Megaliths* series is ***Unquiet Nocturne: The Whispering Knights*** (2010), written for an ensemble of two flutes, two oboes, three clarinets, three saxophones (ATB), two trumpets, two trombones, tuba and piano (it was composed as an

entry for a wind orchestra composition competition). The monument referred to in the title ('The Whispering Knights') is the name given to the ruin of a Neolithic chamber tomb in Oxfordshire. This monument is, with an adjacent stone circle ('The King's Men') and a nearby monolith ('The King's Stone'), part of a megalithic group known as 'The Rollright Stones'. The myth that became associated with the site says that the monolith is a king who was turned to stone by a witch along with his soldiers (the stone circle) and his knights (the remains of the chamber tomb). A later tale became associated specifically with 'The Whispering Knights' in which a farmer tried to move one of the stones to use as a bridge over a stream on his land. It is said that it took several horses to drag the slab downhill; it is also said that this task had to be repeated every day as the stone had mysteriously returned to its original position during the previous night. One day, the farmer is meant to have changed his mind after having dragged the stone to the stream again and decided to return it to where it came from; unusually, this uphill journey was found to be surprisingly easy and the task only required one horse.

Although *Unquiet Nocturne: The Whispering Knights* is a response to the monument as a whole, it is this particular story that is engaged with in the overall structural idea of the work. As the monument is made of five stone slabs and was once a tomb, the piece is based on the descending version of the twelve-note intervallic idea used in the other *Equivalents for the Megaliths* pieces, arranged into twelve five-note chords (like the 'stone' chords heard in *Swinside Study* and *Tombeau/Explosion*). The characteristic durational pattern is also present, but in a different form than the previous pieces. As stated earlier, this durational pattern (1 2 1 3 1 4 1 5 1 7 9 13) is developed from the intervallic contour of the twelve note idea, 1 being equivalent to the starting note and then subsequently to the step of a

semitone, so that each number in the durational pattern is equivalent to the number of semitones in the corresponding interval in the pitch-idea. In *Unquiet Nocturne: The Whispering Knights*, the durational value of each five-note chord is the sum of all of the individual durational values of the notes within it if each individual note in the pitch-idea has a fixed value equivalent to its corresponding number in the durational pattern. For example, as the first five notes of the pitch-idea equate to 1 2 1 3 1 in the durational pattern, the first five-note chord will have a total durational value of 8. The example below shows the pitch-idea with the equivalent values from the durational pattern written below; it also shows all twelve five-note chords created from this, each with its total durational value underneath:

Ex.9:



The durational pattern used in the piece is based on quavers until bar 385 (for reasons that will be explained in due course). Until this point, the piece is based entirely on the patterning described, with each chord held for exactly the durational values shown in the example above, no matter what register they occur in. The work is based on a number of compositional principles:

- The sequence of twelve chords has a quasi-canonic presentation in two layers two octaves apart.
- The first two chords of each layer are always heard separately.
- Each new musical event comprises the next chord in the twelve-chord-sequence sounded against the chord that precedes it in the sequence.
- The musical events are presented incrementally and recursively so that each time a new harmony is heard, the piece travels back to the beginning of the pattern then starts again.
- Whichever chord out of the two has the longer durational value begins first and the chord with the shorter length occurs directly in the middle of the longer chord's duration.
- The durational values alternate between the layers so that two longer values never occur in adjacent positions in the same octave layer.
- Each time the sequence starts again, it alternates between the octave layers so that no two adjacent portions of the sequence begin in the same octave.
- The vertical order of the two harmonies in each musical event alternates between the two octave layers each time the sequence begins again.

The work begins with the first chord in the piano based on the pitch-idea starting on G-flat^4 (F-sharp^4 re-spelled enharmonically for the sake of notational clarity) and held for eight quavers; this is followed by the same chord two octaves lower (G-flat^2), thus establishing the two octave layers described above (the piano only presents the chordal material in these registers until bar 274). In bar 3, the first new musical event occurs as the second chord in the sequence occurs in the upper octave held for eighteen quavers whilst the first chord (eight quavers in length) occurs in the lower octave directly in the middle of

this duration. In bar 5, the sequence starts again but this time with the first chord occurring in the lower octave first, followed by the upper, each time being held for eight quavers. It is in this portion of the sequence that a new sonic element is added as in bar 5 the lower chord is sounded and prolonged an octave higher in the lower brass instruments. This effect is answered in bar 6 when the upper chord is sustained in the woodwinds, also an octave higher than in the piano. This new element now becomes a consistent feature of the piece as every chord in the piano sequence is double an octave higher in the wind instruments. The pattern continues in bar 7 as the second chord (eighteen quavers long) occurs in the lower octave whilst the first chord is sounded in the middle of this duration in the upper octave, the reverse of the previous appearance. The next new musical event in the pattern happens in bar 9 as the third chord in the sequence is heard in the upper octave, held for twenty-six quavers whilst the lower octave sounds the second chord again, only this time its eighteen-quaver duration occurs directly in the middle of the twenty-six quaver long chord above.

After the third chord from the sequence has been heard in bars 9-11 (with the second chord), the music tracks back through the second musical event (the second and first chords together) in bars12-13 before the sequence begins again in bar 14, only this time with the upper octave chord first. The rest of the piece continues to unfold and re-fold the pattern in this manner, the sequence starting again in bars 29, 51, 81, 118, 163, 217, 275 and 340. Each portion of the sequence is longer than the last as each contains a new musical event involving the next, previously unheard chord in the sequence heard with the chord that precedes it. In the new vertical formations that result, it is always the chord with the longest duration that is heard first and the chord with the shortest length that occurs during it; because of this,

the new musical events sometimes begin with a chord already heard as the new five-note chord has a shorter duration. After bars 9-11, the new events in the sequence occur in bars 21-23, 39-42, 65-68, 99-101, 139-143, 190-191, 245-247, 306-310 and 380-384.

The presentation of the material is entirely chordal until the pattern starts again in bar 118. At this point, the five-note chord in the piano is heard as a linear pattern in the baritone saxophone; this moves forwards and backwards through the sequence of notes an octave lower than the equivalent piano chord and in a pattern of decreasing durational values (a written-out *rallentando*). Alternating chords are then picked out in this fashion by different instruments, delineating the chord-sequence with a new timbral element. When, at bar 144, this particular portion of the chord-sequence starts to track back on itself, the linear articulation does likewise, unfolding the chord as a linear sequence moving backwards in relation to the original ordering of the pitch-idea whilst also performing a durational reversal as it speeds up instead of getting slower. When the sequence begins again in bar 163, the linear elaboration moves forwards once again, performing another reversal in bar 192 (when the chord-sequence tracks back once more). The start of the next portion of the sequence in bar 217 is marked by a development of the elaborative scheme as both chords in each musical event are now given a linear figuration in the manner heard previously in conjunction with only one chord. In bar 275, this idea is further developed as the linear elaborations are heard in six different octaves, although once again only on alternating chords, whilst the linear order and speed is reversed again in bar 312, the point at which the chord-sequence moves backwards. From bar 275 until bar 339, the chords are only heard in the wind instruments and in the two octaves above the original chordal presentations in the piano.

The extremes of texture are suddenly cut off by the beginning of the final presentation of the chord-sequence in bar 340. The dynamic suddenly drops and the chords are heard as displaced octave arpeggios falling through the registers of the piano. The same harmonies are sustained in the wind, the brass using the pitch-idea starting on F-sharp^{4}, the woodwind on F-sharp^{5}. This is the only full presentation of the chord-sequence and is meant to act as a quiet epilogue. Once the twelfth and final chord of the sequence has been sounded, a short coda begins in bar 385. This consists of the pitch-idea (starting on F-sharp^{4}) being presented as a series of overlapping ten-note wind chords until all twelve pitches are sustained in bar 390-391. Underneath this texture, from bar 388, the piano enters playing the sequence of five-note chords in retrograde. The chords are closely spaced and octave displacement is used so that the sequence rises from the lowest note of the piano to near the top of its range; the characteristic durational pattern is employed in its original form based on semiquavers, but it is also in retrograde.

The introduction of the linear figures in bar 118, the developments of these in bars 217 and 275 and the change in dynamic and texture in bar 340 divide the main body of *Unquiet Nocturne: The Whispering Knights* into five sections; this, like the use of the five-note 'stone' chords is a reference to the five stones in the monument. The use of flutter tongue effects in the coda is also a colouristic allusion to the 'Whispering' of the figures, whilst the violent, monolithic sonorities and the use of surging, crescendo dynamics relate to the terrifying transformation of the knights in the main folk tale associated with 'The Rollright Stones' (as well as being generally characteristic of the works in the *Equivalents for the Megaliths* series). However, the main extra-musical aspect explored in the piece is the story in which the farmer tried to take away one of the stones only for it to be dragged back at

night. This is expressed through the progressive but recursive presentation of the chord-sequence, the descending material tracking back on itself relentlessly, struggling to move forward in sections that get incrementally longer and more intense. The sudden, final change of texture in the coda is meant to suggest the mysterious ease with which the stone was returned once the farmer finally relented, an idea embodied in the ascending, retrograde, chordal progression in the final bars of the piano part.

This is an example of an extra-musical context having a direct bearing on the compositional processes and choices made in the creation of a piece, something that can be said (to greater and lesser extents and sometimes in different ways) of all of the piece in the *Equivalents for the Megaliths* series that have been written so far. It is difficult to believe that the specific extra-musical narrative dimension could be fully apprehended by an audience on the basis of the music devoid of any accompanying explanatory material, such as a programme note or a pre or post-performance verbal discussion. Yet I do think it possible that aspects of the musical 'narrative discourse' are accessible and comprehensible. In this sense, the patterns of repetition (in terms of individual musical objects and large-scale structure), the use of recurring pitch and durational patterns and the creation of structural distinction and correspondence through timbre, register and dynamics, might function as 'constituent events', generating 'expectation' and revealing musical 'stories' that involve verse-refrain structures, variation procedures and teleological tendencies. Some musical aspects and compositional processes, such as the specific permutations of the pitch-idea and durational pattern and the fundamental relationship between these two musical parameters, might be, to some extent, hidden, or, at least, only comprehensible upon close study of the music. These aspects might

be considered constructional, something that might also be said of the relationship between the extra-musical ideas and the music that they helped to generate (in that a general extra-musical context informed the creation of the basic musical material shared by all of the pieces in the series, and that specific extra-musical ideas informed the composition of each piece individually).

However, if the music is listened to with some kind of accompanying explanation, the combination of the musical 'narrative discourse' and the extra-musical 'narrative discourse' could be understood as generating another layer of 'narrative discourse' in which the musical and extra-musical 'constituent events' inform and elucidate each other in the revelation of some kind of musical/extra-musical 'story'. If the series of *Equivalents for the Megaliths* pieces are understood as a whole group, united not only by a general extra-musical concept but by intertextual musical features (that is, musical material that is shared amongst the various pieces), these features and the overall concept might function as 'constituent' events in a collective musical/extra-musical narrative discourse, the relationships between the individual works and the group operating in a feedback loop, each informing an understanding of the other.

It is possible that the combination of a general extra-musical context (megalithic monuments) and the musical features shared by all of the pieces in the series (the pitch-idea, the durational pattern, the presentation of both as sequences of 'stone' chords) might reveal a 'story' of 'entities' without specific events, or that the 'constituent events' are the 'entities' themselves. In this way, the shared features (the general extra-musical idea and common musical material) could be understood as objects that are, fundamentally similar, but that are presented in different contexts and differently imagined from piece to

piece. This is, to some extent, analogous to the way megalithic monuments themselves are experienced and how the relationships between them are understood. As with the monuments, the specific motivations (musical and extra-musical) that generated the creation of the musical structures might be obscure, and might remain as such. However, the fundamental similarities between the forms of the individual musical objects and the overall musical structures within and between the pieces combined with the presence of a general, extra-musical context, might allow for these shared features to operate as 'constituent events' in a musical/extra -musical 'narrative discourse' that unites the pieces, revealing a collective 'story' that is, potentially, non-specific, and that can, within these parameters, be projected (that is, (re)constructed) by the listener.

Wayland's Lament (Long Barrow Ground 2) for Alto Flute, Percussion and Piano (2009-10)
West Kennet Fragment (Long Barrow Ground 3) for Solo Guitar (2010)

As well as the music from the *Equivalents for the Megaliths* series, my portfolio contains two examples from a different set of works also linked to each other by an overarching extra-musical concept and shared musical material. This group of *Long Barrow Ground* pieces is actually related to *Equivalents for the Megaliths* in terms of its conceptual aspect (the title referring to the British term for a kind of Neolithic chamber tomb commonly found in the British Isles and parts of mainland Europe) and its musical elements. Yet in the *Long Barrow Ground* collection, a slightly different approach is taken to the material and there are gestures particular to the pieces in the group that help to define its identity. Nevertheless, I intend both the extra-musical and musical links between both series of works to be clear, conceiving of them as complementary collections exploring my interest in the cultural meanings of prehistoric human monuments.

I have included only two of the three *Long Barrow Ground* pieces that have so far been written as I feel that they more successfully realise the ideas initially explored in *Long Barrow Ground 1* (a work for chamber ensemble). ***Wayland's Lament (Long Barrow Ground 2)*** (2009-10) was written for a project involving the Italian trio *Ensemble Spazio Musica* and, as a result, is scored for instruments played by the group: Alto Flute, Percussion and Piano (it was premiered by this ensemble at the University of Cagliari, Sardinia, in February 2010). The title refers to 'Wayland's Smithy', the name traditionally associated with a Neolithic long barrow found in Oxfordshire near to another, more famous prehistoric site, the White Horse of Uffington. The name 'Wayland' is an Anglicization of 'Wieland', the name of the

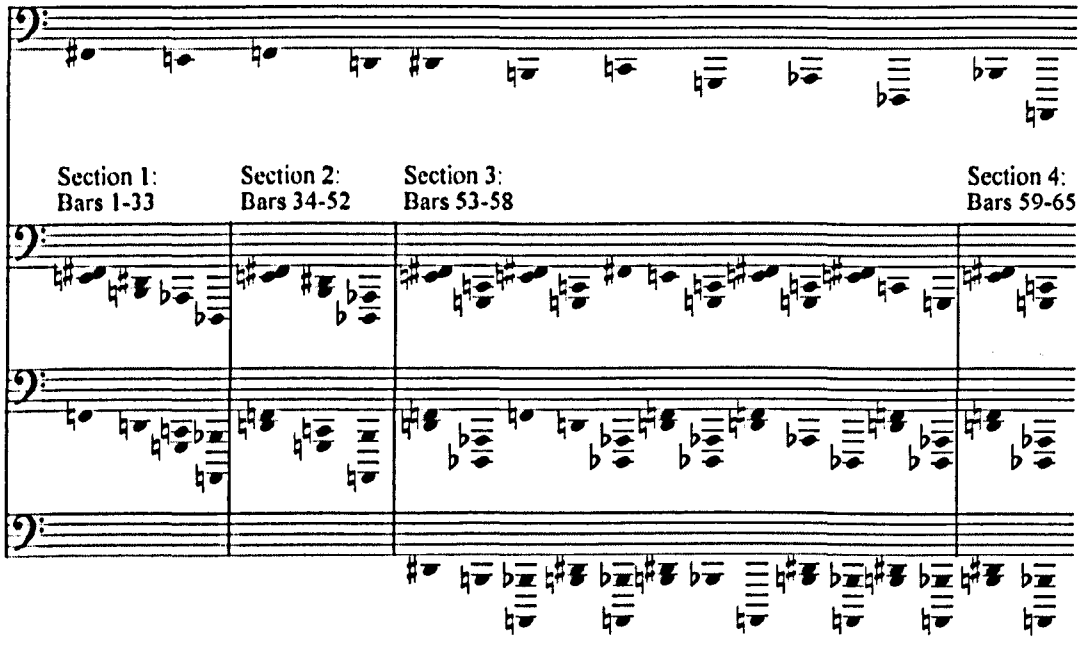
mythological Germanic smith-god and is thought to have been attached to the site by Saxon settlers thousands of years after the tomb was actually built. The later legend associated with this site says that if a person left their horse there during the night (with a coin) the smith-god would appear and fix the horse's shoes.

Unlike the works in the *Equivalents for the Megaliths* series, the *Long Barrow Ground* pieces have no numerical relationships to physical elements of the monuments referred to in the titles. However, although *Wayland's Lament (Long Barrow Ground 2)* does engage with the legend associated with the site, the idea that links the music in the *Long Barrow Ground* collection to the actual monuments is the pun on the word 'ground' in the title. In this context, this word has two meanings: firstly, it relates to the compositional device known as a 'ground bass' (a repeating bass line over which variations of progressively increasing complexity are heard); secondly, as the monuments in the series are all tombs, 'ground' refers the process of digging under and building upon the physical ground through which the structures have been formed.

The ground bass in *Wayland's Lament* (and in the other *Long Barrow Ground* pieces) uses the descending version of the twelve-note intervallic pitch-idea used in *Equivalents for the Megaliths*; the material that is developed from this idea is both related to the music in the larger series and different (just as long barrows are made from stones but differently arranged and covered in earth). Specifically, the pitch-idea is presented in a sequence of chords of accumulating density. In *Wayland's Lament*, this process of accumulation helps to delineate the structure of the work as each of its four sections contains the ground arranged in increasingly dense vertical formations: section **1**=bars 1-33; **2**=b.34-52; **3**=b.53-58; **4**=59-65 (the beginning of each

section is marked by a stroke on the tam-tam). The descending version of the pitch-idea beginning on F-sharp[2] is employed to utilise the lower register of the piano; the example below shows the original pitch-material, the chordal presentations of this material and how it relates to the structural divisions in the piece:

Ex.10:



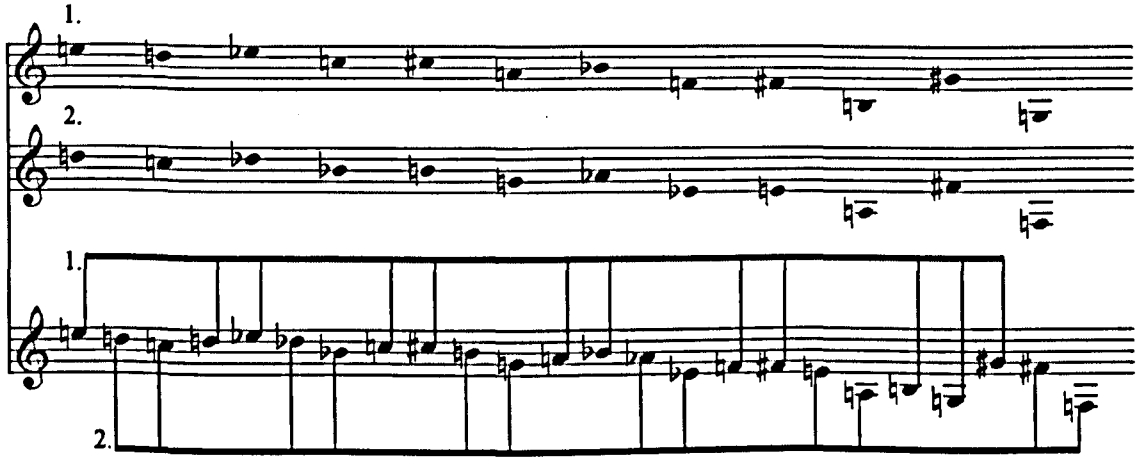
The material in the example above is the ground for this piece, a bass line heard as chords of increasing complexity; it only appears in the piano part and remains in the octave shown.

In section **1**, the ground occurs in two ways: as a repeating, four-chord refrain (as each chord has three notes) in an expanding durational pattern based on crotchets (1 2 3 4) and as four separate three-note chords, the first of which is held for eight crochet beats in bar 13 with the subsequent chords always held two beats longer than the previous chord in the sequence (bars 18-19, 24-26 and 31-33); the ground is always played *pianissimo* in this section. The four-chord refrain is first heard in bars 1-2 using the expanding durational pattern.

On its next two appearances, the final chord is held for an extra five beats whilst the percussionist plays a new refrain on claves (bars 5 and 8); this percussion refrain begins with quintuplet semiquavers but plays progressively longer note-values in a written-out *rallentando* figure. Although it always lasts for five crotchet beats, the four subsequent appearances of this new refrain happen directly in the middle of a durational frame that expands by two crotchet beats each time (bars 12, 16-17, 22-23, and 29-30).

After the second percussion refrain, another new musical gesture is introduced in the alto flute, vibraphone and right hand of the piano. This is a melodic line made from a combination of two transpositions of the descending pitch-idea (the contour of which is related to the 'lament' of the title). Both of the transpositions are shown above the melodic line produced from their combination in the example below, the beams and stems indicating which pitches in the melody derive from which transposition of the idea; both transpositions were chosen to utilise the lowest registers of both the alto flute and vibraphone:

Ex.11:



This melodic line contains twenty-four pitches and is revealed in portions of four, six, four, six and four notes in bars 9, 13, 19, 25 and 32 respectively; each portion is heard first in crotchets in the alto flute then fractionally afterwards in shorter note-values in the vibraphone followed by fractionally shorter note-values again in the right hand of the piano, a canonic blurring of the melodic line that creates a delayed echo-like effect. The first part of the melody is heard directly in the middle of a durational frame of six crotchets beats; this frame expands by two crotchet beats in each subsequent appearance (like the percussion refrain, with which it also shares a swelling then diminishing dynamic profile) and the final four portions of the melody are harmonised by the separate occurrences of the ground bass chords. This pattern of alternating material (piano refrain, percussion refrain, melody) gives this opening section an internal verse-refrain structure.

This verse-refrain pattern continues in section **2**, but the musical events within it are subject to a degree of variation. The piano refrain begins the section in bar 34, but the ground is now presented as three four-note chords; as it still uses an expanding durational pattern based on crotchets (1 2 3), it is now shorter than the refrain in section **1**. The ground also occurs as three separate four-note chords, the first of which happens in bars 41-42; this lasts for thirteen crotchets with the two subsequent chords in the sequence (bars 44-47 and 49-52) lasting for four beats longer than the previous chord. After the second appearance of the piano refrain, another refrain figure enters in bar 36. This is based on the percussion refrain from section **1** in that it is a written-out *rallentando* figure, but it is a beat shorter (beginning with four semiquavers and lasting four beats) and is heard on alto flute in unison with the right hand of the piano. This refrain is always four beats in length, but, like the percussion figure, after its second appearance,

the durational frame within which it occurs expands by two beats (in bars 41, 44-45 and 49-50). The choice of timbres in this gesture is related to the earlier percussion refrain as the un-pedalled piano has a similar attack to the claves, but it now has definite pitch content; it is also marked each time by a stroke on a suspended cymbal.

The pitches in the alto flute and piano refrain always belong to the portions of the melodic line that follow this gesture after its second appearance. This line is based on the same twenty-four-pitch melody used in section **1** and, similarly, each portion of it occurs in the middle a durational frame (bar 39, within five beats) that expands by two crotchet beats with each subsequent appearance (bar 42, bars 46-47 and 51-52). As with its previous presentation, the melodic line is heard in alto flute, vibraphone and the right hand of the piano, in a canonically blurred texture; unlike its previous presentation, it is now divided up into portions of four, eleven, four and four pitches; the 'missing' pitch is a G-sharp[4] from the final group in bar 52 as this pitch-class is present in the chord from the ground providing the harmonic context in this bar (the final three appearances of the melodic material and the written-out *rallentando* refrain are underpinned by the separate ground chords in the piano). The separate chords are always played loudly in this section, as are the rallentando refrains, whilst the melodic material always begins loudly and gets quieter; the piano refrain retains its *pianissimo* marking.

Section **3** is the shortest in the whole piece and is not structured as an alternating verse-refrain structure. Instead, the ground is presented as a sequence on twelve five-note chords played *fortissimo* in the piano; as with the other versions of the ground, it has an expanding durational pattern (1 2 3 4 5 6 7 8 9 10 11 12), only this time it is based on semiquavers instead of crotchets. These chords are the same as

the 'stone' chords used in *Equivalents for the Megaliths I, II* and *IV* and the sequence is accompanied by the suspended cymbal playing an expanding durational pattern based on triplet quavers. This presentation of the ground is then followed in bar 57 by a rapid presentation, at a very loud dynamic, of the twenty-four-note melodic line using octave displacement; this occurs in the alto flute, vibraphone and piano as a rhythmic lattice, the alto flute playing in semiquavers, the vibraphone in quintuplet semiquavers in canonic imitation with the alto flute and the piano beginning with the alto flute but in sextuplet semiquavers that slow down incrementally to triplet quavers. In the final bar of this section there is a general pause in which the resonance of this outburst is allowed to linger via the use of the sustaining pedals on the piano and vibraphone.

Section **4** follows this pause and acts as a *pianissimo* coda to the whole work. Once again, the ground is presented in the piano, only this time it is heard as two six-note chords. This follows the same expanding durational principal as the previous sections and is based on crotchets (1 2); as a result, the sequence is short and becomes a repeating ostinato figure that lasts for the rest of the section. Above this, the twenty-four-note melodic line is heard, although octave displacement is employed so that it occurs within the span of a major 7th (E-natural^{4} to F-natural^{3}). It begins in the vibraphone and is presented as a written-out rallentando, starting in triplet crotchets and, through the use of incrementally longer note-values, finishing in triplet minims. This line is imitated canonically by the alto flute, beginning in bar 60 in septuplet crotchets and finishing in minims, although neither instrument actually plays all twenty-four notes of the melody. This is because the alto flute cannot play the final two pitches in this octave; instead, it ends on the twenty-first pitch (G-natural^{3}) and holds it whilst the vibraphone misses out this pitch.

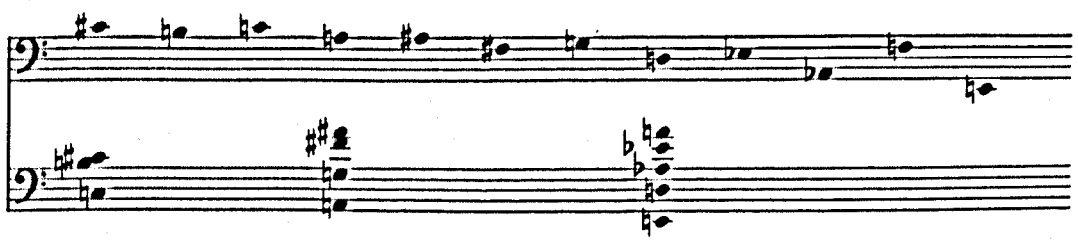
The fact that the final two sections of *Wayland's Lament* are shorter than the first two (and that the second is shorter than the first) means that an overall durational compression occurs during the course of the piece. However, within each section there is a process of internal durational expansion, an idea that was meant to be analogous to the paradoxical visual images of the influential Dutch graphic artist M. C. Escher (1898-1972). The overall durational compression is complemented by the progressive accumulation of vertical pitch density in the ground and the linear compression of the melodic idea, first presented in separate portions then twice as an unbroken line; there is also another kind of compression at work as the written-out *rallentandi* and canonic imitation of the separate gestures in the first two sections are merged in the presentation of the melodic line in the final two sections. The sudden dynamic explosion in the third section relates to an extra-musical aspect of the work, namely, the legend that Wieland the smith-god will manifest at night and shoe any horse that is left there, although, as stated earlier, the extra-musical element has affected the composition of the music less directly in this work than in the *Equivalents for the Megaliths* pieces. However the use of the lowest registers of the instruments (apart from in the structurally significant gesture in bar 57) in *Wayland's Lament* is meant to evoke a sense of sepulchral depth and relates to the monument's former function as a tomb. That the long barrow was a site of ritual burial is also referred to in the presence of ritualised verse-refrain structures and through the use of a conventional musical *topos* of mourning: the lament. This *topos* is manifested in the predominately descending contour of the musical gestures, both in the melodic material and the ground.

Similar extra-musical ideas and musical material are explored in ***West Kennet Fragment (Long Barrow Ground 3)*** (2010), a solo guitar piece

written for and performed by the Swedish guitarist Stefan Östersjö. The title of this work refers to West Kennet Long Barrow, a Neolithic chamber tomb near to another famous prehistoric site in south west England called Silbury Hill. The work has a verse-refrain structure in which a percussive gesture is interspersed between events of developing pitch-material that vary in length. The percussive refrain is the same written-out rallentando figure heard on the claves in *Wayland's Lament (Long Barrow Ground 2)* but, although it always lasts five crochet beats, it is always framed by two crotchet rests (instead of occurring within an expanding durational frame); the sound in this gesture is produced by tapping against the body of the guitar with the fingernails whilst dampening the strings with the other hand.

The pitch-material in the piece is based on two versions of the twelve-note intervallic pitch-idea used in *Equivalents for the Megaliths* and *Wayland's Lament*. The first is a descending version of the idea beginning on C-sharp[4] so that the final pitch is the lowest string of the guitar in standard tuning. This constitutes the ground and, as in *Wayland's Lament*, it employs the principal of accumulating pitch density, being presented as a sequence of increasingly dense chords (three notes, four notes and five notes). The example below shows the original pitch-idea and the ground chords derived from it; octave displacement of the pitch-idea has been employed to create expanding chord voicings that are appropriate and effective on the guitar:

Ex.12:

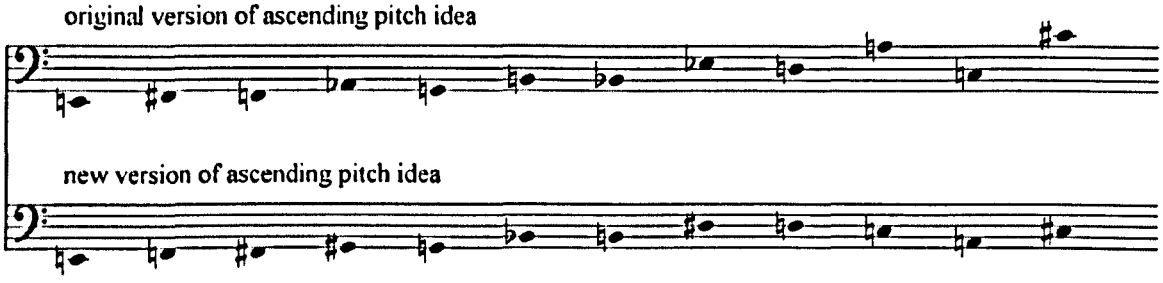


The ground is first introduced as three separate chords each lasting six crotchet beats and each occurring after an appearance of the percussive refrain (in bars 2, 4 and 6); they are sounded very quietly and employ written arpeggiations that follow the linear order of the original pitch-idea. In bar 11, the original sequence seems as if it might start again only for the first and second chords to begin an expanding durational pattern based on crotchets in bar 17, a pattern that is fully realised with all three chords in bars 25-26 (2 4 6). At bar 28, the first chord of the ground is reconfigured (using octave displacement) as a two-part texture; this dynamically contrasted version of the ground always occurs within six beats and is progressively revealed in bars 30 and 32, using rhythmic diminution to fill up the durational space. This two-part version then becomes a single line in bars 34-35; further octave displacement and harmonics are employed but this time, the characteristic durational sequence found in the *Equivalents for the Megaliths* series(1 2 1 3 1 4 1 5 1 7 9 13) is used, based on semiquavers. The use of this durational pattern is intended to indicate a link between this piece and the larger series as well as relating to the megalithic entrance of West Kennet Long Barrow. The final appearance of the ground is in bar 41; this time, the original three-chord arpeggiated gesture returns using a shorter expanding durational pattern based on crotchets (1 2 3).

The other version of the pitch-idea used in the piece ascends, starting on E-natural[2]. The decision to use descending and ascending versions of the pitch-idea was influenced (as it was in *Equivalents for the Megaliths II: Tombeau/Explosion*) by the nature of the monument that the work relates to in that, although West Kennet Long Barrow is a tomb with subterranean chambers, it is found on top of a steep hill that overlooks the surrounding landscape. This ascending version of the pitch-idea does not appear in the original form on which it is

based. Instead, it is subject to a re-ordering of its pitches and octave displacement (as well as enharmonic re-spelling) to create a new linear gesture:

Ex.13:



At first, this new ascending pitch-idea is presented in a three-part texture with parallel upper harmonies a major 7th and minor 14th above. The fortissimo dynamic at which this material is played (along with its accented articulation) creates a strong contrast to the ground material and it uses a durational pattern based on crotchets different to that used for the ground, although it does employ the principle of expansion (1 1 1 2 1 3 1 4 1 2 3 4). This pattern is fully revealed in bars 19-23, although the first two then three bars are heard separately in bars 8-9 and 13-15 respectively. In bar 29 the ascending pitch-idea is heard with only the major 7th harmonisation in even semiquavers; like the percussive refrain, this version of the idea occurs in the middle of a durational frame, surrounded at each extreme by a silent crotchet rest. The dynamic level in this gesture drops dramatically from its loud starting point due to the use of a slurred *glissando* articulation, the acoustic energy quickly lost as the strings are not re-attacked by the plucking hand. This version of the pitch-idea returns in bar 31 (only this time it is just harmonised a minor 7th higher) and in bar 40 (only this time as a single line and with no use of the *glissando* effect).

This last appearance of the ascending linear idea represents the beginning of what could be considered the piece's coda as in the previous bar (39), a climax is marked by the performer being asked to strike the guitar with their knuckles. This gesture is related to the percussive refrain but it also punctuates the passage between bars 36 and 38 in which the ascending linear idea is arranged for the one and only time as a sequence of three chords. Like the ground, these three chords accumulate progressively more pitches (three notes, four notes and five notes); however, they become progressively closer in spacing and follow a durational pattern in crotchets that contracts (5 4 3) rather than expands, culminating in the two-beat percussive strike.

Although the passage from bar 40 to 42 might be considered coda-like, *West Kennet Fragment* does not really have sectional divisions as such, the piece ending with the percussive gesture that really defines the overall form as a varied verse-refrain structure. The presence of this gesture provides an explicit musical link to the other *Long Barrow Ground* works (I also plan to use it in other pieces in the series) as does the employment of the twelve-note intervallic pitch-idea as a ground bass arranged as progressively more complex harmonies (this material also links it to the *Equivalents for the Megaliths* series). This relates to the fact that, like Wayland's Smithy, West Kennet Long Barrow is a Neolithic tomb and the descending chords embody the same double-meaning of the word 'ground'. Yet the use of an ascending linear idea in *West Kennet Fragment* is specific to this piece due to the physical characteristics of the monument. That the pitch-material in the work is presented as fragments that are gradually put together (and then tried in different combinations) to form phrases and gestures relates to the identity of the monument as a site of archaeological interest, the processes and presentations analogous to the discovery, collation and reconstruction of ancient artefacts.

In this way, a combination of extra-musical ideas has had a major bearing on the compositional approach taken in the work, the structure and location of the monument informing the shape of the pitch-events and the idea of archaeological fragments informing the decision to arrange these events as a series of fragmented musical gestures. If a listener is informed of the title and has read the accompanying programme note, the musical and extra-musical material might combine to create 'constituent events' in the musical/extra-musical 'narrative discourse', although the 'story' revealed is perhaps less conventionally narratological. This could be due to the relatively static nature of the extra-musical concept, in that, because it involves the general physical identity of the site and a related but non-specific idea (archaeological fragments are found at many sites), this extra-musical concept does not itself display many features of conventional narrative. The extra-musical elements in *West Kennet Fragment (Long Barrow Ground 3)* might, in this sense, be considered constructional, important to the creation of the piece but not essential to an understanding of a performance.

What, then, might be revealed through the musical 'narrative discourse'? The percussive refrains used in the work are intended to act as structural signals, allowing for points of orientation in what might otherwise seem like a series of more or less disconnected musical gestures. These refrains are meant to bind the structure together and, in combination with the use of repetition, varied repetition and revelation in the pitch-material, are meant to act as 'constituent events' in the musical 'narrative discourse', revealing the 'story' of an overall verse-refrain structure, something which itself might function as a type of 'masterplot' musical 'story'. The fact that the compositional choices taken in creating this musical 'narrative discourse' were informed by specific extra-musical ideas is, arguably, unimportant in

the revelation of this particular musical 'story'. However, enabling a listener to engage with the extra-musical ideas that were an integral part of the work's construction (through the title and programme note) could provide a useful context for apprehending the different characteristics of the musical material and appreciating the fragmentary, seemingly metre-less nature of the piece as a whole.

The title and programme note for *West Kennet Fragment (Long Barrow Ground 3)* link this piece to the other *Long barrow Ground* pieces, as does the use of shared musical material (as some of this characteristic musical material links the *Long Barrow Ground* series to the *Equivalents for the Megaliths* series, it could be understood as operating in a large-scale, intertextual musical 'narrative discourse'). For example, the percussive, written-out *rallentando* refrain is a gesture that is intended to be characteristic of the *Long Barrow Ground* music, and its use as a structural signal in *West Kennet Fragment* is related to its use in *Wayland's Lament (Long Barrow Ground 2)*.

This percussive gesture, the piano refrain and the portions of the melodic line can all be considered 'constituent events' in the musical 'narrative discourse' of the first two sections of *Wayland's Lament*, revealing the verse-refrain structure at work. However, this 'masterplot' type of musical 'story' is not the overall 'story' of the piece, operating only within the musical 'narrative discourse' in these two sections. These sections can be understood as containing 'constituent events' and revealing a verse-refrain 'masterplot' 'story' within themselves, but they are also contained as embedded musical 'stories' within the large-scale musical 'story' of the whole piece, of which each of the sections is itself a 'constituent event'. This overall musical 'story' is more teleological in nature, its 'constituent events' being the processes of harmonic accumulation in the ground, linear revelation in the upper

melodic line and the recursive patterns of durational expansion within sections of decreasing length. In this sense, the percussion refrain in the first section could be understood as a 'supplementary event' as it does not materially contribute to any of these large-scale 'constituent events'. Nevertheless, this gesture outlines within itself a durationally-expanding pattern and, in the second section, becomes integrated into the process of melodic revelation (it also acts as a 'constituent event' in the larger, intertextual musical 'narrative discourse' of the *Long Barrow Ground* series).

That the teleological musical 'story' in *Wayland's Lament* occurs across a form that divides into four sections is highlighted by another kind of percussive structural signal: the strokes of the tam-tam. The repetition of this gesture allows for it to be understood as a 'constituent event', as it not only makes clear the structural divisions of the work but also that the sections are getting shorter. Yet the final two sections of the work engage with different aspects of the rhetoric of musical narrative. In the fourth, coda-like section, the use of an expanding durational pattern in the melodic material becomes a conventional gesture of closure and the fact that this material is heard for the first time against the ground refrain in the piano can be understood as culminatory, another way of signalling an end point. Due to the long-range durational process in the piano refrain, in this final section, the ground is very short and is presented as a repeating, ostinato figure; this also contributes to the sense of ending as, in much Western music, repetition is typically associated with closure in a musical 'narrative discourse'. In this way, the fourth section can be understood as fulfilling some of the conventional meta-musical narrative expectations of closure.

However, the section that precedes the coda-like closing passage is suddenly very loud, is based on faster durational units (semiquavers instead of crotchets) and presents the linear material descending across different registers in each part. This intentionally surprises the intra-musical narrative expectations established by the first two sections as, until this point, the dynamic level has been predominantly soft, the events spaced widely apart and slowly, progressively expanding, and the instruments have all tended towards their lowest register. Nevertheless, although the third section of the work might act against narrative expectations at the musical level, it does engage with the extra-musical aspect of the piece, relating to the sudden manifestation of Wieland in the myth associated with Wayland's Smithy. In this way, the musical and the extra-musical elements of the work might be understood as combining to create a 'constituent event' that reveals the musical/extra-musical 'story', the surprise at the musical level interpreting and being interpreted by the surprise in the extra-musical legend in an interpretative feedback loop. This provides *Wayland's Lament* with a more dynamic extra-musical aspect than *West Kennet Fragment* and, as a result, might mean that it can function more successfully as a musical/extra-musical 'narrative discourse'. But, like *West Kennet Fragment*, *Wayland's Lament* is also concerned with the idea of a monument that is somewhat static in nature and the use of unchanging refrains in the ground bass (within individual sections) reflects this.

As previously indicated, *Wayland's Lament* is also concerned with another musical *topos* in addition to the ground bass: the lament, a type of conventionally understood musical gesture that derives from, and is associated with, expressions of sadness. It has been mentioned that this *topos* is referred to in the predominantly descending contour of the music as well as through the use of low registers and soft,

muffled dynamics. The use of this musical *topos* itself relates to the fact that Wayland's Smithy was a place of burial and, presumably mourning; in this sense a musical idea (the lament as embodied in the piece) becomes a 'constituent event' in the extra-musical 'story', another way of understanding the existence of a combined musical/extra-musical 'narrative discourse'.

The presence of the lament also works in connection with the ground bass. This latter *topos* (and, like the lament, its appearance in the title of the work) sets up general musical narrative expectations: that the piece will involve some kind of repeating bass pattern, some element of variation and harmonies of increasing complexity. As well as suggesting the double meaning of the word 'ground' that unites the pieces in the larger *Long Barrow Ground* series, the use of a ground bass has wider intertextual connotations as it refers to a specific musical genre (the ground bass with variations), a general historical period (it tends to be associated with Renaissance and Baroque music) and a general geographic and cultural area (Britain – that's why I called it a 'ground' and not a 'passacaglia' or a 'chaconne', other terms for the same process). Yet in combination with the lament *topos*, the ground bass engages with another more specific intertextual musical association: the dramatic lament presented as a set of variations on a ground bass (such as 'Dido's Lament' from *Dido and Aeneas* by Henry Purcell). In this way, the intertextual references to a wider musical repertoire might be understood as working in combination with the specific intertextual references to the other *Long Barrow Ground* works (and the intra-musical processes in the piece itself) to help define and elucidate the musical/extra-musical 'narrative discourse' in *Wayland's Lament*.

Note for Three Sopranos (2008)
Two Legends for Bass Solo and Piano (2009)

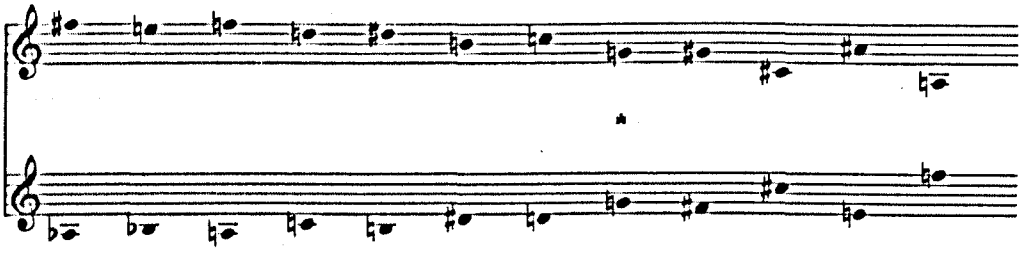
Both works listed above are the only vocal pieces in my portfolio that set published, pre-existing poems (as opposed to *Sycamore*, for which the text was specifically written). For this reason, I have decided to discuss them together, although they are otherwise unrelated in terms of their subject-matter. The first work, ***Note*** for Three Sopranos (2008), was written for the female vocal trio *Juice* and was performed by them in a workshop in 2008. The work is scored for the voices without accompaniment and sets a short poem, 'Note', by the Canadian poet Paul Potts (1911-1990); this poem is taken from a larger work called *Instead of a Sonnet*, written in 1944. The sombre tone and simplicity of the text appealed to me, as did the fact that the numbers of syllables in each line get incrementally longer (a general property of the durational schemes used in my music).

Note employs the same durational scheme and pitch-idea heard in the *Equivalents for the Megaliths* pieces as it was composed at the same time as I was developing the first piece in the series, *Swinside Study (Sunkenkirk)*, and I wanted to explore this material in a vocal context. I had been listening to music from the 12th/13th Century Notre Dame School of early notated vocal polyphony (known as *organum* and attributed to the composers Léonin and Pérotin) in which long, held notes, often based on an existing plainchant, are heard underpinning shorter, more florid phrases in other voices. As a result, I wished to engage with the kind of unaccompanied vocal textures heard in this repertoire in my own music. The brevity of the poem 'Note' allowed me the freedom to explore an approach to vocal writing in which single words and syllables can be repeated, focused on and stretched out over long periods, blurring the distinction

between their semantic dimension and their sense as sounds in themselves. To this end, I was also influenced by the vocal music of Morton Feldman, particularly his work *Three Voices* (1982).

The composition focuses on each line of the poem separately and in the order they appear in the original text, although all but the final line are subject to repetitions: line 1 = bars 1-24, line 2 = bars 25-36, line 3 = bars 37-60, line 4 = bars 61-66. I wanted the texture in *Note* to move around a central pedal note that would later move to the outer parts of the texture, and so the music is based around descending and ascending versions of the twelve-note intervallic pitch-idea with a shared pitch at the same point in the linear order (marked with an asterisk in the example below). The exact pitch-levels of the idea take into account the vocal ranges of the singers in the trio *Juice*:

Ex.14:



The first twelve bars of the piece mark out the durational pattern derived from the intervallic contour of the pitch-idea (1 2 1 3 1 5 1 7 9 13) in crotchets and only using G-natural[4] (the note in common between the two versions of the pitch-idea); this initially happens in alternating voices before they begin to overlap, all three voices only coming together on the final note in the pattern. Then, in bars 13-18, voice one presents the first seven pitches of the descending version of the pitch-idea (beginning on F-sharp[5]) incrementally and recursively,

stopping just before G-natural[4] is reached; this material is heard in groups of crochet quintuplets. Against this, voices two and three mark out the durational pattern based on crotchets, alternating between the two parts (voice two continues to sing the central pedal pitch of G-natural[4] while voice three sings a dissonant lower pedal on A-flat[3], the staring pitch of the ascending version of the pitch-idea). In bar 18, voice one returns to F-sharp[4] (the first pitch in the descending version of the pitch-idea) but remains on this pitch, creating a dissonant upper pedal marking out a loose version of the durational pattern in quintuplet quavers. Beneath this, voice two continues marking out the durational pattern which began in bar 13 on the central G-natural[4] pedal whilst voice three presents the ascending version of the pitch-idea in triplet crotchets, starting on A-flat[3] and stopping on D-natural[4] (the point before G-natural[4] would be reached) in bar 24.

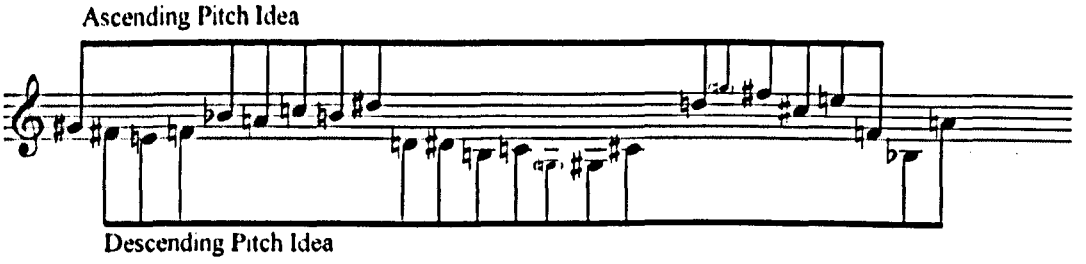
Bars 25-36 display a return to the simpler rhythmic texture of the first twelve bars, all three voices marking out the durational pattern based on crotchets in rhythmic unison. In bar 25, the voices have a G-natural[4], the point reached by voices one and three in the previous section. Then, from the next beat in this bar until bar 27, voice one reiterates the next pitch in the descending version of the pitch-idea (pitch 9, G-sharp[4]) whilst against this, in bars 25-26, voice three finishes the ascending version of the pitch-idea. In bars 27-29, voice three returns to pitch 9 of the ascending version of the pitch-idea, whilst voice one completes the descending version (voice two continues sound the central G-natural[4] pedal throughout this passage).

From the final beat of bar 29 until bar 35, voices one and three sing the final pitches of the descending and ascending versions of the pitch-idea (A-natural[3] and F-natural[5] respectively) against the central pedal, meaning that the two outer voices have now swapped registers. In

bar 37, voice two leaves the central G-natural[4] pedal for the first time to sing a line that combines both the ascending and descending versions of the pitch-idea, the former starting an octave higher than its previous appearance (and enharmonically respelled), on G-sharp[4], and the latter string an octave lower, on F-sharp[4]. Both versions are interleaved to form the new melodic line shown in the example below:

Ex.15:

Pitch-material in bars 37-57



The beams and stems in this example have been added to demonstrate how this single line is made up from revelations of both versions of the pitch-idea in alternating groups with increasing numbers of pitches heard each time until the final two groups; notes ten and twelve of the ascending version are moved down an octave and the same notes in the descending version are moved up an octave so that they can fit into a singer's vocal range (this means that the ascending version ends by descending and the descending by ascending). This material is heard as a melody that is revealed incrementally and recursively in crotchet septuplets in voice two. The smaller notes with bracketed note-heads indicate the pitch-class (G-natural) that was a shared unison in the previous versions of the pitch-idea heard earlier in the piece; in bars 37-57, these notes are not part of voice 2's melodic line. Instead, they are heard as an outer pedal in

voices 1 and 3, framing the inner part; these framing pitches mark out the durational pattern in rhythmic unison (with the first and second crotchets emphasised in the durational units of 3, 5 and 13 crotchets to accommodate both syllables in the word 'other').

Having finished in bar 48, the durational pattern in the outer voices begins again in bar 49 (in crotchets) whilst the inner voice, having not sounded the last four notes of the new melodic line, begins this line again in bar 49, but now in groups of quavers. In bars 53-57, the last four pitches of the new melodic line are shared amongst the voices in a homophonic arrangement that also finishes off the durational pattern in crotchets which began in bar 49. Bar 58 sees the return of the pedal G-natural[4] in voice two bracketed closely by the final pitches of the new descending and ascending versions of the pitch-idea (see example above) in voices one and three (A-natural[4] and F-natural[4] respectively). The final passage, from bars 60 to 66, continues with a homophonic texture that begins but does not complete the durational pattern in crotchets. These bars feature the G-natural[4] pedal in the inner voice and the starting pitches of both versions of the pitch-idea in voices one and three. However, these pitches are now displaced by two octaves relative to their starting positions in bar 13 and utilise the extremes of the singers' vocal registers at a soft dynamic range.

The dynamic shaping of the piece divides it into two parts: in bars 1 to 36, there is a gradual increase then decrease in the volume level whilst in bar 37 there is a sudden outburst of dynamic intensity that is sustained then raised in bar 49 before dropping gradually away, the end representing the quietest point in the piece. This bipartite understanding of the overall shape accords to the four-line form of the poem, but against this, the music can be described as falling into five

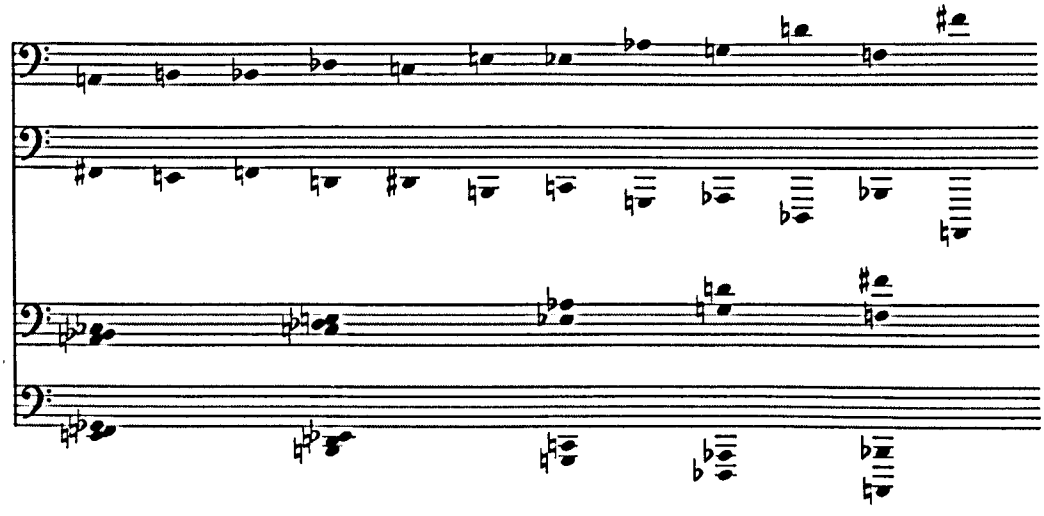
sections: **A**=bars1-12; **B**=b.13-24; **A1**=b.25-36; **B1**=b.37-53; **A2**=b.53-66. The allocation of labels in this description indicates the textural contrasts and correspondences between the sections, the **A** sections presenting simple, homophonic textures and the **B** sections more complex durational layers and florid vocal writing. These structural choices were, to some extent, motivated by the text, the melismas between bars 37 and 53 used to emphasise the word 'dreams' and the clear, widely-spaced chords in the final bars intended to emphasis the starkness of the closing line. The use of symmetrical pitch-patterns around a central pedal-point throughout this piece was suggested by the poem's idea of two dreams existing in (and looking at) one consciousness and the combination of both pitch-ideas in one line in bars 37 to 51 was meant to embody the idea of two dreams talking 'One to another' but in a single mind. There is also a pun intended by the use of a constant pedal note in the setting of a poem called 'Note'.

The next vocal piece to be discussed, ***Two Legends*** (2009), is a work for solo male bass voice with a piano accompaniment; each of its two movements is a self-contained song but they were written together to be performed as a pair. The texts set in this piece are from a single poem called 'Two Legends' by the British poet Ted Hughes (1930-1998); this poem is part of Hughes's longer, thematically-linked collection *Crow* (1967-1973). Although the poem 'Two Legends' is in itself one work, it is split into two clearly defined parts; in my setting, each of these parts is set to music in a separate movement.

Two Legends was written around the same time as *Equivalents for the Megaliths II: Tombeau/Explosion* and both of the songs employ the same ascending and descending twelve-note intervallic pitch-idea heard in the piano work. I wanted to use these contrary motion

versions of the pitch-idea as the poem 'Two Legends' is full of kinetic, dynamic imagery and I felt that using pitch-material which moved in opposite directions could suggest a kind of explosive energy through its shape. In the first song, the ascending pitch-idea begins on A-natural[2] and the descending version on F-sharp[2]. The pitch-ideas are not heard in their linear forms in the first song; instead, they are each arranged in a sequence of five chords as shown in the example below:

Ex.16:



In the first song, the music in the piano accompaniment consists entirely of the chords made from both versions of the pitch-idea in the vertical combinations and linear order shown in the preceding example.

I was drawn to set the poem 'Two Legends' as it displays patterns of repetition that are similar to the recursive musical structures (large-scale and small-scale) in my own work and the harmonic rhythm in the first song is based on the structure within the first part of the poem. I think that this structure falls into four parts: lines one to five, lines six to

nine, lines ten to eleven and lines twelve to fourteen. These divisions are based on the internal patterns of repetition within the text in which a number of lines beginning with the word 'Black' are always followed by one line that does not begin with this word (except the final part, which has an extra line). Each of these four parts is set in its own musical phrase, the first three of which are marked with pauses (in bars 10, 22 and 26) whilst the final phrase marks the end of the piece. The phrases display an incremental harmonic accumulation with phrase **1** (bars 1-10) employing the first two harmonies, phrase **2** (bars 11-22) harmonies one to three, phrase **3** harmonies one to four and phrase **4** all five harmonies. The last harmony in each phrase is not heard until the final chord, a point of arrival marked with a pause in all except the final phrase.

The pitch content in the vocal part uses only two pitches throughout: F-sharp^2 and A-natural^2, the starting pitches of both versions of the pitch-idea shown above. The rhythmic scheme involves a pattern of durational expansion based on quavers, so that the first syllable in every line lasts for a quaver and the subsequent syllables occur within a durational space that increases in length by a quaver each time (1 quaver, 2 quavers, 3 quavers etc.), whilst the number of events within the space is dictated by the number of syllables in the words that are being set. This pattern begins again with the start of each new line; like the expanding pitch-idea in the piano part, the tension generated through the patterns of repetition was also suggested by the dynamic imagery in the poem. The first and last lines are both whispered, creating an unpitched frame for the song, whilst all of the other syllables employ a rising two-semiquaver melisma from the lower to the higher pitch.

The durational scheme in the piano part follows the same pattern of expansion as the voice but it is based on triplet crotchets instead of quavers. As in the vocal part, the durational pattern in the accompaniment is recursive, beginning again with the start of each line in the poem, although as it is based on a fractionally slower pulse, there is a sense of rhythmic disjunction between the voice and the piano. This temporal unease relates to the uneasy tone of the text, the starkness and violence of which is reflected in the declamatory vocal line and the severe accompanying music. The progressively increasing dynamic level over the course of the song is meant to emphasise the accumulation of energy in the poem, the sense of something being brought forth into the world, whilst the opening whisper is meant to suggest the void from where this process begins; the use of a loud unpitched whisper at the end is meant to suggest the implication of the inexpressible in the final line.

The second song in *Two Legends* sets the other part of the poem and is based on the same basic musical material, although it is presented differently and developed so as to create a contrasting piece that, nevertheless, is also part of a coherent whole. The music for the second song is, to some extent, through-composed, a response to the fact that this part of the poem does not present the same kind of systematic pattern of repetition as the first part. However, there is a definite change in the accompanying texture in bar 31 and this corresponds to a change in the text from an initial use of repetition in the first four lines to a breaking of the pattern for the final six lines. The piano part is based upon the same versions of the twelve-note intervallic pitch-idea heard in the first song, but they are presented in different octaves and differently arranged throughout.

In bar 1, both versions of the pitch-idea are heard simultaneously in a linear arrangement as two groups of sextuplet semiquavers. The descending version begins in the right hand on F-sharp^4, lasting for five semiquavers before the last seven pitches are heard in the left hand. The ascending version inverts this presentation, beginning in the left hand on A-natural^3 before crossing into the right hand after five notes and completing its sequence of pitches. The final pitch-class of each version of the pitch-idea (descending: A-natural; ascending: F-sharp) is displaced by an octave to allow it to also function as the first pitch-class in the next statement of the opposite version, so that the next presentation of this material dovetails with the first (beginning on the final sextuplet semiquaver in bar 1 and continuing into bar 2). Before the final notes of the second presentation of the pitch-material, there is a sextuplet semiquaver rest; this durational gap expands by one value upon each subsequent presentation of the material meaning that after the sixth presentation, in bars 6-7, there is a break of five sextuplet semiquavers. As the first pitches of each presentation also function as the final pitches of the previous presentation, this durational gap means that both versions of the pitch-idea from the second presentation onwards effectively seem to lack their final pitch-classes.

At the end of bar 7, it seems as if this pattern is going to continue as the first three pitches of the seventh presentation of both versions of the pitch-idea seems to begin. However, in bar 8, a retrograde presentation of both versions of the pitch-idea begins, starting on the eleventh pitch-class and working backwards (the ascending version begins on F-natural^4 in the right hand and moves into the left hand after six sextuplet semiquavers; the descending version begins on B-flat^3 in the left hand and moves into the right after six sextuplet semiquavers). The durational gap between statements of the idea

now disappears and the pattern starts again, a change that coincides with the setting of the second line of the text. This means that the last notes of the first retrograde presentation of each version of the pitch-idea (on the eleventh sextuplet semiquaver in bar 8) also function as the first notes of the next retrograde presentation into bar 9. Yet after the second presentation of this material, the durational gap reappears after the final notes of each version. As this gap proceeds to expand in the same manner as it did during the setting of line one of the poem, the subsequent retrograde presentations of the pitch-material effectively lack their first pitch-classes, just as the original versions of the pitch-material between bars 2 and 7 effectively lacked their final pitch-classes (they are, of course, the same pitches).

At the end of bar 14, the retrograde presentation of the pitch-material seems to begin again only for the original ordering to be restored at the start of bar 15, a change that once again coincides with the start of a new line of the poem. As in bars 1-7, the descending version begins in the right hand on F-sharp^{4} and the ascending version begins in the left hand on A-natural^{3}. However, after the eleventh pitch-classes of each version are reached on the eleventh sextuplet semiquaver of bar 15 (ascending: F-natural^{4}, right hand; descending B-flat^{3}, left hand) instead of sounding the last/first pitches of both versions of the idea, the pattern moves in reverse, finishing back on the starting pitches on the ninth sextuplet semiquaver in bar 16; this creates a new twenty-one note symmetrical pattern centred on the eleventh pitch-classes of each version of the pitch-idea. From the tenth sextuplet semiquaver in bar 16 to the sixth sextuplet semiquaver in bar 18, a retrograde of this new symmetrical pattern is presented, starting on the eleventh pitch-class and centred on the first pitch-class of each version of the idea. Thus the accompaniment to the setting of line three of the text combines both versions of the material that

accompanied the setting of lines one and two. In bar 18 there is a sextuplet semiquaver rest before the original ordering of the new symmetrical pattern begins again; from this point on, the original ordering alternates with the retrograde ordering, each statement separated by the same expanding durational gap heard in bars 1-14. The pattern is only altered in bars 29-30, after the setting of line three; here, the twenty-one note retrograde pattern is extended by nine notes to end on the second pitch-classes of the original ordering of both versions of the pitch-idea (descending: E-natural[4]; ascending B-natural[3]).

Unlike the accompaniment, the vocal line in this song is more obviously related to that in the first song, once again displaying a pattern of durational expansion based on quavers in which the first syllable in every line lasts for a quaver and the subsequent syllables occur within a durational space that increases in length by a quaver each time (the number of events within the space dictated by the number of syllables in the words set). As in the first movement, this pattern is recursive, beginning again with the start of each new line. Until bar 56, this pattern is articulated as rising two-semiquaver melismas on the same pitches and, as in the first song, each note in the semiquaver pairs is the starting pitch of each version of the main pitch-idea heard in the accompaniment. Due to this, the rising melisma now encompasses a major 6th, forcing the singer to the top (or maybe just over the top) of his vocal range, an extreme, broken effect that is intended to accord with the images in the poem.

The running sextuplet semiquavers in the accompaniment from bars 1 to 31 were also suggested by the text, specifically, the water imagery employed in the first three lines of the poem (this kind of texture is a common musical *topos* associated with running water in Western

music). The shift in the accompanying texture in bar 31 coincides with the text moving away from water imagery and, from here until the end, the piano part changes with the setting of each new line. In bars 31-37, the poetic image of the earth being black under a thin surface layer is suggested by the silently depressed notes in the piano that are sounded by louder upper chords. The silently depressed notes are the starting pitches of both versions of the main pitch-idea but an octave lower than heard in piano part until this point (F-sharp^3 and A-natural^2). These same pitches occur in their original octaves throughout these seven bars in each of the loud, dissonant, upper chords, causing the silently depressed lower octaves to resonate (a resonance that also accords with the same pitch-classes in the vocal part). The other notes in the chords are from both versions of the pitch-idea in their linear order but arranged in close spacing, starting with the second pitches from each version in the first chord and moving in pairs with each successive harmony in the seven-chord-sequence (pitches 3 and 4, pitches 5 and 6, pitches 7 and 8, pitches 9 and 10, pitches 11 and 12, heard with the first pitches each time); these chords are presented in an expanding durational pattern based on triplet quavers. The texture in these bars is similar to that used in 'Patina', the fifth movement of *Equivalents for the Megaliths II: Tombeau/Explosion*, music that was also meant to suggest the presence of something existing under a thin surface layer.

In bar 38, both versions of the pitch-idea are arranged as a sequence of six dyads heard simultaneously in both hands of the piano (right hand = descending version, left hand = ascending version). The use of octave displacement in the arrangement of these chords means that the overall shape of the music in this bar moves from a wide to a close spacing, getting progressively narrower with each harmony; this is meant to be analogous to the shape of the 'egg' referred to in the

text at this point. Similarly, to suggest the lunar and solar cycles mentioned in line six, the passage from bar 39 to bar 45 uses octave displacement to arrange both versions of the pitch-idea as two lines that span the range of the piano and cross each other in the middle (the descending version begins in bar 39 in the right hand on F-sharp^{4} before rising to E-natural^{7} and finishing on A-natural^{0} in the left hand in bar 45 whilst the ascending version begins on A-natural^{3} before falling to B-natural^{0} and finishing on F-sharp^{7} in the right hand). The point at which the two lines cross occurs on the second crotchet beat in bar 42 and the passage employs an expanding durational scheme based on triplet quavers that reaches a maximum duration of six (heard twice) in bars 41-42 before moving in retrograde from this point (the same point at which the pitch lines cross).

This arrangement of the pitch-material dovetails with the musical depiction of a 'rainbow' accompanying the setting of line seven in bars 46-52. This musical image is created by the presentation of the ascending version of the pitch-idea in displaced octaves across the range of the piano beginning on A-natural^{0} and dovetailing in bar 49 with the descending version also in displaced octaves, beginning on F-sharp^{7}. This material is heard in regular triplet crotchets between bars 46 and 52 (actually beginning on the third quaver of a triplet quaver group in bar 45), but is then heard in diminution as sextuplet semiquavers in bar 54 (like a miniature 'rainbow' in water; this texture also recalls the opening texture and water imagery of the first thirty bars). Just as the passage in bars 31-37 employed a texture from the fifth movement of *Equivalents for the Megaliths II: Tombeau/Explosion*, so the music between bars 38 and 54 employs the same kind of circular, line and arc patterns found in 'Marks', the third movement in the same piece. However, in bar 53, the singer is unaccompanied,

depicting the 'emptiness' referred to in the text (this effect is also used in bars 55-56).

The final, unresolved line of the poem is also unaccompanied and it is the only moment in either song that the voice sings more than two pitch-classes. In bars 57-59, the singer has two long melismas that present both versions of the pitch-idea, starting with the ascending version on A-natural^{3} and pivoting to the descending version on F-sharp^{4}. Octave adjustments are made in both versions to keep the material within the reasonable upper register of the bass voice and to ensure that the whole phrase remains within the compass A-natural^{3} to F-sharp^{4}. The final three bars are also the only time during the second song that the vocal line is not delivered at a *fortissimo* dynamic, the more melodic nature of this passage underlined by the quieter volume. The dynamics used in the accompaniment alternate between *fortissimo* and *pianissimo* for the first thirty bars, highlighting the beginning of each new line, whereas in the latter half of the song, they are more varied, responding to the poetic and musical context in contrast to the severe, declamatory delivery of the vocalist.

The style of vocal writing is consistent throughout both movements in *Two Legends* and is intentionally stark and repetitive, something that is meant to reflect the obsessive repetitions and ritualistic nature of the poem. The piano part is equally stark and repetitious in the first song but engages more directly in word-painting in the second, employing musical gestures analogous to the images in the second part of the poem. This approach was prompted by the more systematic, repetitive structure seen in the first part of the text compared to the relatively freer poetic writing in the second. The overall presence of violent poetic imagery and ritual repetition also suggested to me a link with my *Equivalents for the Megaliths* series. As a result, I feel that, as

well as the specific connections to the second work in the group, *Tombeau/Explosion*, the general gestural language of these songs belongs to the same kind of musical landscape as the larger series of pieces.

Both *Note* and *Two Legends* contain an integral extra-musical element in that they both set a pre-existing text. I have tried to respond to both poems with musical material that, in combination with the text, will function as part of a musico-poetic 'narrative discourse' in an interpretative feedback loop (one aspect interpreting the other), although what it is that is revealed through this is, potentially, ambiguous. This ambiguity is partly to do with the nature of the poems as both are somewhat opaque and elusive. 'Note' seems to suggest someone (perhaps the implied author) contemplating their life with a sense of disappointment; this idea is expressed and personified in the presence and negative comment of the subject's dreams, a poetic image that indicates a disjunction between imagination and reality, and which implies that expectations or ambitions have been, or remain, unfulfilled. At least, this is my reading of the poem and it is this (my understanding of the text) that I think might possibly be revealed through the musico-poetic 'narrative discourse'. To express ideas such as these in musical material is, potentially, more difficult than trying to suggest more pictorial poetic imagery.

As mentioned earlier, I have tried to embody the image of the two dreams watching the dreamer in 'Note' through the use of dissonant linear material that expands symmetrically either side of a central pedal-point and I feel that this musico-poetic 'constituent event' (the combination of the poetic image and the pedal-point texture) might serve to reveal the 'story' of my reading of the text. However, there are also potentially aspects of the musical 'narrative discourse' that

might reveal a co-existing musical 'story' that does not necessarily have a role to play in revealing the 'story' of my interpretation of the text. For instance, the verse-refrain pattern of the overall structure revealed through the musical 'constituent events' (texture, use and order of pitch content, dynamics, durational scheme) was not suggested by any aspect (poetic form or content) of the text and does not, I think serve to reveal my reading of the poem. Similarly, the fact that aspects of the music were inspired by *organum* might also be revealed through the musical 'narrative discourse' but this too has little to do with my reading of the poem, except perhaps through the general idea of spiritual contemplation. Yet the contrasts between the more florid, linear textures and the clearer, homophonic and unison passages that delineate the verse-refrain structure might, as a binary opposition, evoke the discrepancy between dreams and real life that I read in the text, whilst the undecorated, stark setting of the poem's final line (it is homophonic, has the same pitches throughout and uses no text-repetitions) and its widely-spaced texture (the point at which the voices are furthest apart) is meant to suggest the inescapable pessimism that I feel when reading it.

The ambiguity in the poem 'Two Legends' is of a different kind to that found in 'Note'. Whilst the latter text seems to reveal the unfulfilled dreams and disappointment of an implied author, both parts of 'Two Legends' seem to be a kind of creation/birth myth. That this text relates to a crow is not revealed until the second part, but once this is apparent, part one becomes retroactively absorbed into the whole more clearly, revealing the 'story' of the crow's creation and birth. The imagery used in both parts of the poem is vivid and pictorial, but the narrator remains occluded and ambiguous. Due to the patterns of repetition in part one and at the beginning of part two, the text reads like a ritual recitation, spell or incantation and the perspective of the

narrator is unclear, whilst the title suggests that this could be a piece of folkloric verse. Only towards the end of the poem does the ritualistic rhythm break off, the subject-matter and structure seeming to float away.

This is, once again, my reading of the poem and it is possible that this will be revealed through the musico-poetic narrative discourse. In the first song from *Two Legends*, there is no attempt to depict musically the imagery in the text and the vocal line is intentionally inexpressive, almost like pitched, declamatory recitation rather than conventional Western song. The piano part does not engage in word-painting either, instead presenting a repetitive chord-sequence that is incrementally revealed over the course of the song. In one sense then, the music does not attempt to reveal what the subject-matter of the text is about, but literally provides a setting in which the poem is heard. However, the durational patterns in both the vocal line and piano part and the revelation of the chord-progression (the harmonic rhythm of the song) are based on the structural repetitions in the poem, emphasising and, to some extent, revealing an internal verse structure in the text through the use of clearly defined musical verses. Thus the 'constituent events' in the musico-poetic 'narrative discourse' could be the combination of the poetic structure and the musical structure derived from it; the 'story' revealed could involve my reading of this part of the text as an obscure, ritual incantation, the conventionally inexpressive musical material providing a dramatic immediacy, as if the ritual was being literally enacted.

The second part of the poem begins with the same kind of ritual repetitions but they are subject to a different kind of musical treatment in the second song. Although the piano accompaniment is based on repeating patterns, they are configured as a recognizable Western

musical *topos*, the running semiquavers working in combination with the water imagery in the text to form a musico-poetic 'narrative discourse' that engages more obviously in conventional word-painting. This occurs mainly in the accompaniment as the vocal line remains, for the most part, declamatory, not conventionally song-like. The fact that the musical gestures in the piano part are based on transformations of the same underlying pitch-material and durational principle might suggest that a theme-and-variations 'story' could be revealed in the musical 'narrative discourse'. However, this idea itself engages with the presence of transformational images in the poem. Thus the combining of the text with musical gestures that seek to amplify the images described through analogous musical shapes creates 'constituent events' in a musico-poetic 'narrative discourse' that, as in the first song, does not try to reveal a meaning in the text as such. Nevertheless, unlike the first song, the musico-poetic 'narrative discourse' in the second song does attempt to delineate the images in the text through the use of analogous musical shapes and conventional musical *topoi*. If the specific intertextual musical features of this song are also known (the references to *Equivalents for the Megaliths II: Tombeau/Explosion*), this could add a layer of referential meaning to the musical gestures, contributing to the musico-poetic 'narrative discourse' and amplifying the revealed 'story' of violent imagery and obscure ritual.

Yet I feel that my reading of the poem 'Two Legends' can only be revealed through the musical 'narrative discourse' of both songs heard together and in sequence. This is because the 'constituent events' in the conventionally inexpressive musico-poetic 'narrative discourse' of the first song and the more conventional use of word-painting in the second work together as large-scale 'constituent events' in an overall musico-poetic 'narrative discourse' that reveals

my understanding of the poem as an incantatory creation/birth myth, the subject of which eventually breaks free and flies away, literally escaping the confining and ritualistic repetitions of the text. In this context, the final expansive vocal line is defined through its contrast to the previously declamatory style of delivery and, with the text, operates as a 'constituent event' in the overall musico-poetic 'narrative discourse', revealing the 'story' of my reading of the poem.

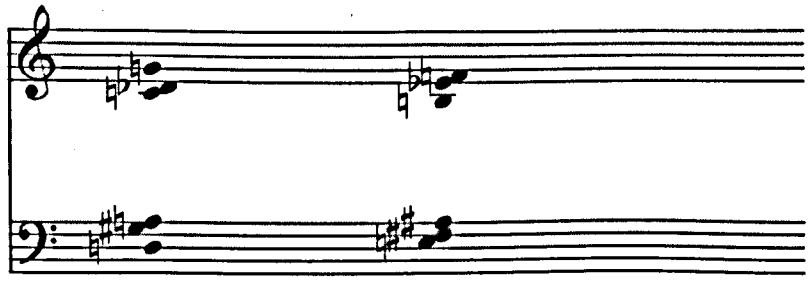
Music that engages with meta-musical concepts:

As indicated earlier, I have divided my portfolio into two broad categories and the remainder of this discussion will examine music primarily concerned with what I have termed meta-musical ideas. By this I mean that the pieces included in this section are, to some extent, 'about' musical ideas, exploring, in various ways, musical conventions of different kinds and in a variety of aspects, from the structural to the conceptual.

Refrain for Piano (2006)

The first such piece to be examined is actually the earliest work in my portfolio submission. *Refrain* was written in 2006 to be performed in a piano recital given by my supervisor, James Wishart, at the University of Liverpool. Although a relatively early work, it explores musical ideas and principles similar to those found and developed in some of my later work. The piece has a verse-refrain structure based around a recurring musical idea. This idea is comprised of two chords, each of which contains six notes; it always appears in the same register and voicing shown in the example below:

Ex.17:

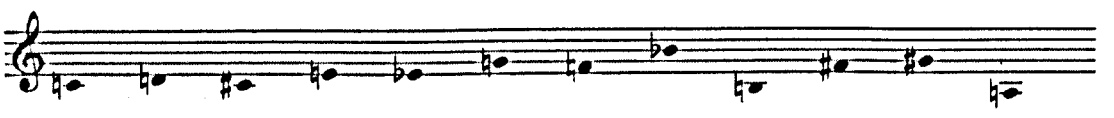


There is a cadential quality to the contour of this gesture, the chords seeming to have an antecedent-consequent relationship (it is directly

related to *Holmewood Study (Refrain 2)*, in which the cadential refrain is an inversion of this idea whilst the use of rapid iterations of pitches in written-out *accelerando* figures and the plucking of the piano strings inside the body of the instrument in *Refrain* are also explored and developed in the later piece). This cadential refrain is always followed by and, after its first appearance at the start of the piece, preceded by, a fifteen-note iteration of one or more of the pitches contained within it, presented as a written-out *accelerando*; on two occasions, the chords within the cadential gesture are also separated by the iterative figure. Although there is no time signature (as I wanted to create the sense that the musical objects in the piece were free-floating, not bound by a shared metre), the first chord in the cadential refrain is always held for four crotchet beats and the second chord held for as long as it takes the sound to die away whilst the accelerando gesture always begins in quavers and speeds up to demisemiquavers.

The pitches in the fifteen-note iterative figures act as pivots into the two different types of contrasting material alternately interleaved between the appearances of the cadential refrain. The first type of contrasting material is based on a twelve-note pitch-idea, the intervallic contour of which was later developed into the pitch-idea used in all of the pieces discussed so far:

Ex.18:



The material based on this idea is always plucked on the strings inside the body of the piano. The pitch-level shown above is that used in the

first appearance of this idea; in its two subsequent appearances it begins on A-natural[3] and F-natural[4] respectively, although on both occasions octave displacement and chords are employed that distort the intervallic contour and linearity of the idea. The first version of this material employs a recursive expanding durational pattern based on semiquavers: (1) 2 3 1 2 3 4 1 2 3 4 (5). I have bracketed the first and last numbers in the pattern as they are actually the last note of the fifteen-note iterative figure and a pause note respectively and, as such, their durational values are not exactly as their theoretical place in the pattern suggests. The second version compresses the idea using chords; as a result, it contains fewer events and so has a shorter expanding durational pattern based on semiquavers: 1 2 3 4* 5 (6). The final value is once again theoretical as it is a pause whilst the event held for four semiquavers (indicated with an asterisk) is itself split into two events (1 3) due to the practicalities of playing inside the piano. The final version of this material follows the same durational pattern as the second, only this time the fifth event is split into two events (1 4), also for practical reasons.

The other type of contrasting material is chordal in nature and played on the keyboard, although it is quite different to the chordal refrain (which is also played on the keyboard) as it undergoes some development; it is also differentiated from the plucked material through its timbre and through not being based on the twelve-note idea. There are three instances of this material in total, the first containing four-note chords presented in a rising contour, the second three-note chords in a falling contour and the third a mixture of both characteristics. The harmonies are based around dissonant minor 9ths, often linked to one another by pivot notes, although there is no systematisation at work in the choice of pitches. These gestures also present a stark contrast to the other material through their extremely

loud dynamic and through the use of a contracting durational pattern based on semiquavers. In the first instance, this occurs as a 5 4 3 2 1 pattern with the last of its six chords falling on a pause (so not functioning as part of this scheme); the other two instances of this material each have twelve harmonies and employ a recursive contracting durational pattern (5 4 3 5 4 3 2 5 4 3 2 1).

Along with the plucked material and the cadential refrain, these gestures should seem like disassociated musical events that sometimes seem related but ambiguously so, like an existing work has been broken up into pieces and almost arbitrarily arranged. This idea is obliquely referred to in the title as the Latin root of the noun 'refrain' is *refringere* which means 'to break into pieces'. The choice of this title refers primarily to the musical concept of a refrain (a piece of recognisable material that returns as part of some kind of regular structural pattern alternating with contrasting material) which in this piece is the recurring two-chord cadential figure. Through its repetition, this figure can be considered a 'constituent event' in the musical 'narrative discourse', revealing the 'story' of this piece as a verse-refrain structure.

As has been mentioned, verse-refrain structures can be considered as conventionally understood 'masterplot' types of musical form, something that can be recognised and understood from the repetition and differentiation of structural elements in a piece of music. Of course, the presence of such a 'masterplot' structure in *Refrain* is also revealed through the title. In this sense, the title could be thought of as an extra-musical element that, in describing a general musical idea, contributes to the elucidation of the musical 'narrative discourse' through setting up an expectation in the listener, highlighting the work's 'constituent event', and thus helping to clarify the musical

'story'. Yet if the cadential nature of the refrain in this piece is apprehended, this gesture can be understood as reading another meaning into the title as the word 'refrain' also means to stop doing something, as a cadence stops a piece of music.

Manifestations (Canonic Passacaglia) for Chamber Orchestra (2007)
Manifestations (Canonic Passacaglia) (revised version) for Chamber Orchestra (2009)

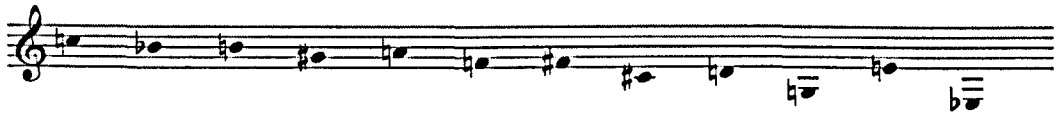
The first version of ***Manifestations (Canonic Passacaglia)*** was written in 2007 as an entry for the Liverpool 2008 Capital of Culture composition competition and was selected for a workshop performance by the Royal Liverpool Philharmonic Orchestra's Ensemble 10/10 in December 2008. Although it was a successful performance, I wasn't entirely happy with some aspects of the piece and resolved to revise it at some point. In 2009, the RLPO contacted me to ask if I would like to produce a revised version of the work for inclusion in their 2009-10 concert series and the result was a much expanded, largely re-imagined piece. My discussion of this work will focus mainly on the revision, but I include the original in my submission as it has an identity as a piece in its own right but also serves as a useful illustration of my compositional processes, illustrating how my thoughts about it grew and changed over nearly two years and how some ideas in it were more fully and successfully realised later.

At the time of writing the first version, I had at my disposal a chamber orchestra consisting of solo woodwinds (with two clarinets), solo brass, one percussionist, piano and solo strings, making an ensemble of fifteen players in total. Both the original and the revision are subtitled *Canonic Passacaglia* as each involves the transformation of an underlying musical idea (that is always present) in a series of variations that employ imitative pitch structures. In both versions, this idea is the same twelve-note intervallic pitch-idea used in all of the pieces examined so far, except *Refrain*. The original *Manifestations* was written not long after *Holmewood Study (Refrain 2)* and *Sycamore*, so I was keen to explore this musical material further. It is also in this version

that I first used the durational pattern derived from the pitch-idea that would become characteristic of the *Equivalents for the Megaliths* series (1 2 1 3 1 4 1 5 1 7 9 13). As *Manifestations* was written not long before *Swinside Study (Sunkenkirk)*, I've always thought of this piece as a kind of proto-megaliths work, a study for the musical material used in the larger series (as a consequence of this, the revision is also strongly related to this series of pieces).

In the first version of *Manifestations* the primary musical material is the descending form of the twelve-note intervallic pitch-idea beginning on C-natural. This idea is present in each of the work's six sections: bars 1-14=**1**; b.15-28=**2**; b.29-57=**3**; b.58-64=**4**; b.65-73=**5**; b.74-93=**6**. In section **1**, it appears at the octave shown in the example below, but the register subsequently changes from section to section:

Ex.19:



The work begins with a single strike on the bass drum on the first beat of an otherwise empty bar four crotchets in length; this gesture occurs between each section, marking the end of one and the beginning of another. My idea was that each section would reveal a new manifestation of the pitch-idea and that the bass drum strike would clear away the previous music and make aural space for the next presentation, a rhetorical device that would also provide a point of orientation for the listener, marking out the major structural junctures.

Section **1** presents the pitch-idea as a descending line of twelve demisemiquavers in the time of a crotchet in the piano part, a gesture

whose occurrences mark out the characteristic durational pattern in crotchets. Against this the strings and both clarinets each have two pitches from the twelve-note idea and alternate them in rhythms based on the same characteristic durational pattern but in a lattice of different note-values ranging from septuplet semiquavers in violin I to quavers in the clarinets. The pitch-idea is also heard as a series of dyads in the vibraphone followed by a linear version using the durational pattern based on semiquavers, whilst the section ends with the pitch-idea held as a chordal sonority in wind and strings. Section **2** presents the idea as a two-part canon with the primary line beginning on C-natural^{7} and the imitating line on C-sharp^{7} in a manner similar to the textures used in *Sycamore*. The primary line uses a distorted version of the durational pattern based on triplet quavers and the imitating line responds to this with a free durational pattern; both lines begin on solo violin harmonics with piano but the orchestration builds as the lines progress. Section **3** presents the idea in a three-part texture beginning on C-natural^{4}, D-natural^{4} and C-sharp^{5}, initially in the brass, but filling out with low woodwinds and strings. This section begins by marking out the durational pattern in whole bars but this comes to an abrupt halt after event 7 and the end of the pattern compressed into the final three bars. The loud, raucous dynamics provide a contrast to the predominantly delicate dynamic level of the first two sections.

Section **4** employs four versions of the pitch-idea beginning on C-natural^{3}, E-flat^{3}, D-natural^{4} and C-sharp^{5} but arranged as a compound melody in the piano. The durational pattern is not used but a contrapuntal rhythmic lattice texture is created with *pizzicato* low strings and low woodwinds, all at a loud dynamic. Section **5** uses five versions of the pitch-idea beginning on C-natural^{4}, E-natural^{4}, E-flat^{5}, D-natural^{6} and C-sharp^{7}; this material is presented as a shifting five-part canonic texture in the strings with the resulting harmonies arpeggiated

in the metallic percussion and piano, with the woodwinds joining the texture about halfway through; the rate of harmonic change is governed by the underlying characteristic durational pattern based on crotchets. The muted dynamics in this section contrast strongly with the section that preceded it and the sudden outburst of section **6** in which six versions of the pitch-idea are used starting on C-natural[8], C-sharp[7], D-natural[6], E-flat[5], E-natural[4] and F-natural[3]. This pitch-material is presented as a series of twelve six-part chords using the full ensemble; this means that there is an incremental accumulation of pitch-layers over the course of the piece, the number of horizontal layers equalling the section number, giving the overall work a sense of teleological shape that cuts across the sectional divisions. Section **6** does not use the characteristic durational scheme, instead employing a contracting pattern (combined with an accelerando) based on crotchets in which the first chord is held for twelve beats with each subsequent value reduced by one beat, until the last chord is a quaver (although it should be one crotchet).

Although the original version of *Manifestations* seemed to work as a piece in itself, there were some technical difficulties and notational problems (in sections **4** and **5**). I also felt that the general principles and musical ideas in it could be realised more effectively, so I was grateful for the chance to re-think my approach in a revised version. For the revision, I was able to add a bass trombone and an extra percussionist, meaning I now had an ensemble of seventeen players at my disposal. I still wanted to use a structure in which the texture would grow incrementally more complex with each section as more versions of the main pitch-idea were added, but I wanted to explore this idea more fully and systematically. I also wanted to develop further the contrast between the linear and more homophonic presentations of the main pitch-idea so, to this end, I decided to

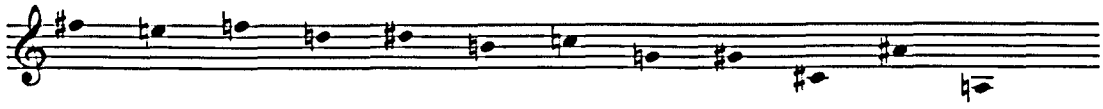
interleave sections using linear presentations of the idea between the sections in containing chordal presentations.

As a result of these alterations, ***Manifestations (Canonic Passacaglia)*** (revised version) is longer than the original and divides up into eleven sections: bars 1-14=**A**; b.15-21=**B**; b.22-34=**A1**; b.35-44=**B1**; b.45-57=**A2**; b.58-70=**B2**; b.71-83=**A3**; b.84-99=**B3**; b.100-112=**A5**; b.113-134=**B4**; b.135-147=**A/B**. The allocation of labels indicates the relationships between the different parts of the structure, the **A** sections presenting the pitch-material as chords, the **B** sections presenting the material as lines.

As in the first version, the work begins with a strike on the bass drum and the subsequent sections are all separated by a bass drum gesture; however, the new version of the piece also ends with a bass drum gesture and those that occur between the sections are substantially altered. Although they still retain the function of structural articulation, they are no longer simply one crochet beat followed by three rests; instead, they mark out the characteristic durational pattern (1 2 1 3 1 4 1 5 1 7 9 13), beginning in crotchets (bars 1, 14, 21, 34 and 44 = 1 2 1 3 1) before compressing the remaining values that are longer than a crotchet into the time of three beats (bars 57, 70, 83, 99, 112, 134 and 147 = 4 1 5 1 7 9 13). I decided to make this change as I wanted the durational pattern to be more prominent and felt that the rests after the bass drum strokes in the original version disrupted the momentum of the music. For the same reason, the gestures marking events 4 5 7 9 and 13 of the durational pattern are compressed into the time of three crotchets and all of the bass drum gestures (except the first) follow a roll with a *crescendo* (lasting four beats) that leads into the main figure (as this links them more smoothly to the end of the preceding section).

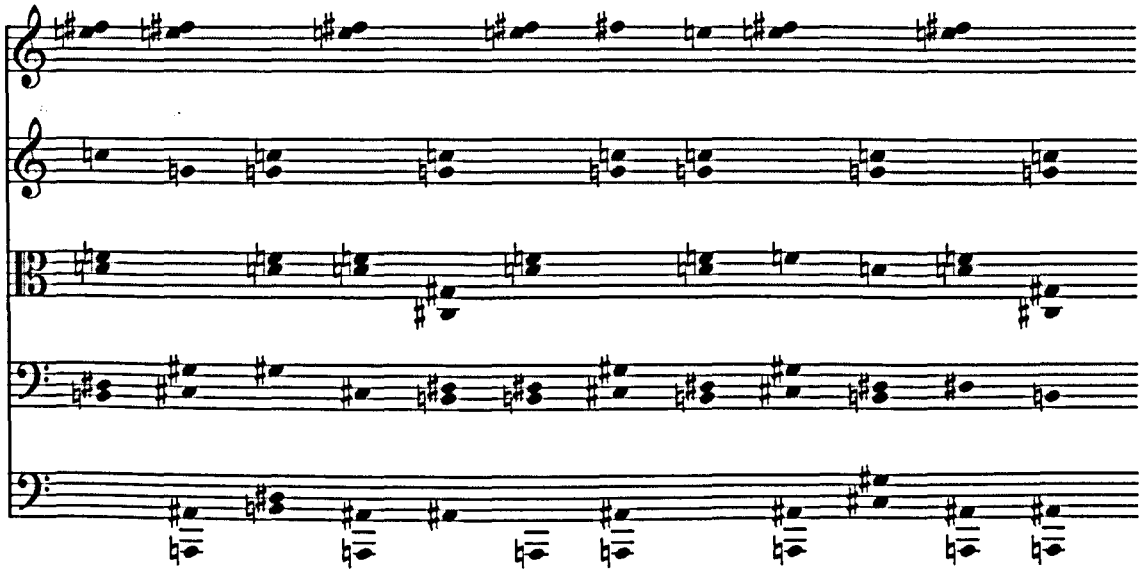
The pitch-material in the revision is all based on the same descending twelve-note intervallic idea used in the original. However, the primary version of this idea begins on the pitch-class F-sharp instead of C-natural:

Ex.20:



The first **A** section begins with the pitch-idea arranged as a series of twelve seven-note chords:

Ex.21:

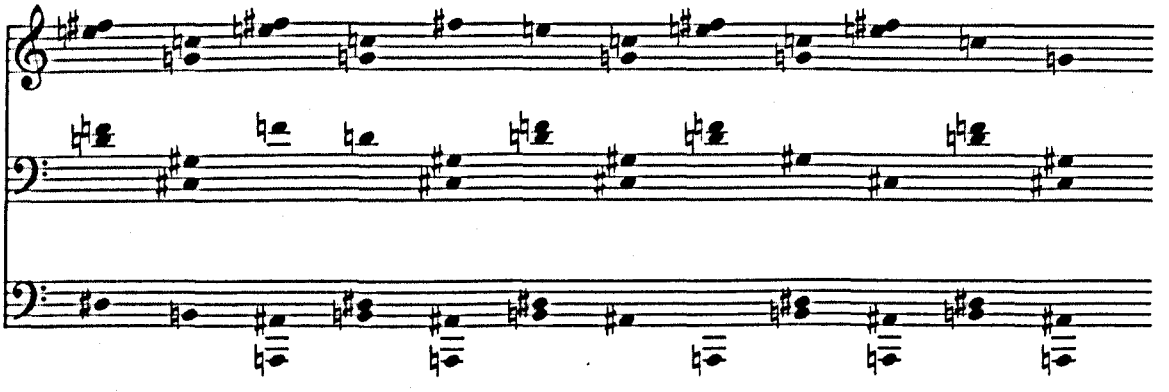


This series of chords is presented by the strings using the characteristic durational pattern based on crotchets and is embellished by the piano playing the linear version of the pitch-idea in septuplet semiquavers. Each group of seven notes in the piano coincides with an event in the durational pattern and contains the same pitch-

classes as the chord with which it is heard; the sequence in which the pitches occur is based on the linear ordering of the original pitch-idea. However, as the starting pitch is F-sharp^{2}, the piano line generally lies under the chordal texture (the main version of the pitch-idea starts on F-sharp so that its final pitch can utilise the lowest note of the piano). The start of this first section is marked by a stroke on the tam-tam, a gesture that is repeated in every subsequent **A** section; this section also includes some bass drum rolls to add ambient resonance to the longer rests between the final piano figures.

The series of twelve seven-note chords shown above also appears in section **A1** and, again, it is presented by the strings using the characteristic durational pattern based on crotchets, although this time the decorative septuplet linear version of the pitch-idea is heard in the vibraphone instead of the piano; this line generally lies above the chord-sequence, theoretically starting on F-sharp^{6}, although as this pitch is beyond the range of the vibraphone, the first note is always an octave lower than it should be. In bar 26, the woodwinds enter with the pitch-idea arranged as a series of twelve five-note chords in the same register as the string chords:

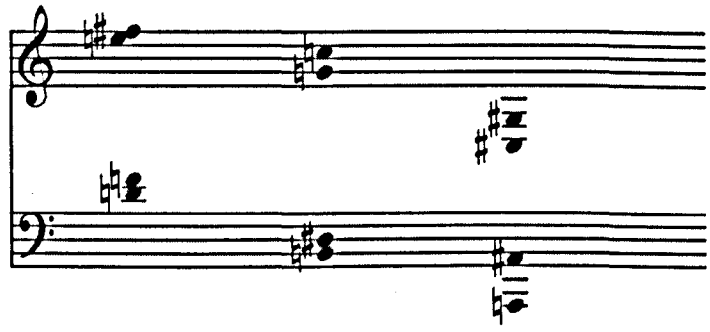
Ex.22:



These chords are presented using the durational pattern based on triplet crotchets, providing a canonic counterpoint to the string chords, and are embellished in the piano playing the linear version of the pitch-idea starting on F-sharp[2] but this time in quintuplet semiquavers so that each group of five notes coincides with a chord in the woodwinds.

The same sequence of events occurs in section **A2**, the strings playing the pitch-idea as a series of seven-note chords whilst the woodwinds enter in bar 49 with the same idea in five-note chords, although this time the five-note chords are embellished by the glockenspiel playing the linear version of the idea in quintuplet semiquavers beginning on F-sharp[7]. However, this section contains another imitative layer as, in bar 49, the brass enter with a new counterpoint made from the pitch-idea arranged as a series of three four-note chords:

Ex.23:

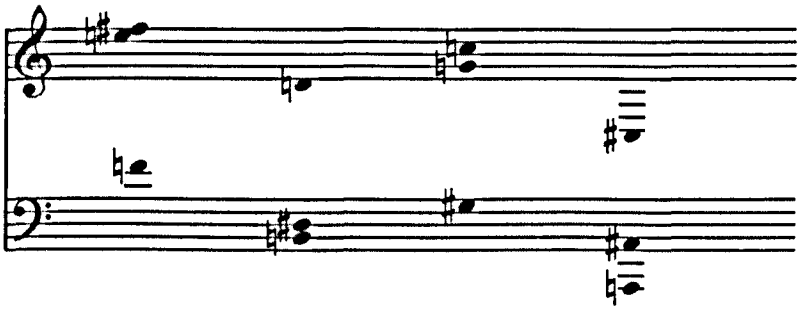


Through repetition, these chords present the durational pattern in quavers, although the last chord does not last for thirteen quavers but stops on the first quaver beat. As with the first entries of the string and woodwind chords, the brass chords are embellished by the piano

playing the linear version of the pitch-idea but now in demisemiquavers, starting on F-sharp[2].

In section **A3**, four different layers of chordal material are heard in imitative counterpoint, beginning with the pitch-idea in the piano arranged as a series of four three-note chords:

Ex.24:



This material begins with a presentation of the durational pattern based on crotchets; however, the pattern is not completed, beginning again in triplet crotchets in bar 75, before re-starting once again in bar 77 in quavers, the pattern only heard in its entirety once it begins for a fourth time, in bar 79, based on triplet quavers. The first point of imitation is provided by the brass in bar 72 as they enter with the pitch-idea in three four-note chords, each note occurring one semiquaver after that preceding it, creating a point of internal imitation (this texture actually derives from the brass chords in section **3** of the first version of *Manifestations*); these three chords do not use the durational pattern. The next point of imitation is provided by the woodwinds in bar 74 as they enter with the pitch-idea arranged as twelve five-note chords but presented in equal crotchets, not using the durational pattern. The final imitative entry is heard in the twelve seven-note chords played by the strings, like the woodwind entry, as

equal crotchets, beginning in bar 77. It is only in the percussion part that the durational pattern is heard, uninterrupted, in its entirety, as, from bar 71, the tam-tam and suspended cymbal mark out the characteristic pattern based on crotchets.

Section **A4** also presents the different chordal versions of the pitch-idea as a set of canonic entries, beginning with the seven-note string chords using the durational pattern based on crotchets; this is imitated by the five-note chords in the woodwinds based on triplet crochets in bar 104 and by the four-note brass chords using the pattern in quavers in bar 106. However, this time the entries in each section are embellished by a loud, aggressive re-iteration of the pitches of the first beat in each durational event in septuplet semiquavers (strings), quintuplet semiquavers (woodwinds) and demisemiquavers (brass). The piano and tubular bells begin by playing the seven-note chords with the strings, then the five-note chords when the woodwinds enter, before switching to the four-note chords upon the entry of the brass. The piano then provides a third point of imitation at bar 108 by presenting the pitch-idea in four three-note chords using the durational pattern based on triplet quavers. There is a final point of imitation in bar 109, as, instead of holding their final chord for thirteen crotchets, the strings present their sequence of twelve seven-note chords again, but this time using the durational pattern in semiquavers. Thus this section functions as a point of culmination as it combines features from all of the previous **A** sections but at a level of increased dynamic intensity.

The **B** sections provide a marked contrast to the **A** sections, presenting the main pitch-idea in lines as opposed to chords and it is in the **B** sections of the revised version of *Manifestations* that the incremental addition and combination of the idea at different pitch-levels found in

the original version is more fully realised. In the first **B** section, the idea is heard in two parts beginning on F-sharp^{6} and E-natural^{7}; in section **B1** it is heard in three parts beginning on F-sharp^{5}, E-natural^{6} and F-natural^{7}; in section **B2** it is heard in four parts beginning on F-sharp^{4}, E-natural^{5}, F-natural^{6} and D-natural^{7}; in section **B3** it is heard in five parts beginning on F-sharp^{3}, E-natural^{4}, F-natural^{5}, D-natural^{6} and D-sharp^{7}; in section **B4** it is heard in seven parts beginning on B-natural^{7}, C-natural^{7}, G-natural^{6}, G-sharp^{5}, C-sharp^{5}, A-sharp^{3} and A-natural^{2}. Therefore, the starting pitches of the different transpositions of the main pitch-idea in all of the **B** sections spell out the pitch-classes in the primary version of the idea beginning on the F-sharp, creating a large-scale musical acrostic. The first **A** section should be understood as presenting the pitch-idea using the primary pitch-class level and so, with the subsequent transpositions in the **B** sections, the pitch-idea is heard in all twelve possible transpositions during the course of the piece.

The addition of more transpositions of the pitch-idea in the **B** sections is combined with a progressively increasing textural complexity from section to section. The first **B** section presents the two versions of the pitch-idea in flute and oboe using the characteristic durational pattern based on quavers (the number of semiquavers in the basic durational unit always equating to the number of transpositions of the idea in the section). This is decorated by the crotales playing the first pitch of each line as two separate demisemiquavers on the first, third, fifth, seventh, ninth, eleventh and twelfth durational events in the pattern. A further layer of decoration is provided by the piano playing the pitches from the main idea as separate demisemiquavers pairs at the same octave as they appear in the woodwind instruments, coinciding with all of the durational events in these parts. However, the piano presents the pitch-ideas recursively, so that the whole pattern starts again with each new piano event, creating a delayed,

canonic effect. The beginning of this first B section is marked with a stroke on the suspended cymbal, a gesture that is repeated in all subsequent **B** sections, as the tam-tam stroke begins all of the **A** sections.

In section **B1**, the three versions of the pitch-idea are heard in the upper strings using the durational pattern with a dotted quaver as the basic unit (dotted quaver = 1). This is decorated by the piano playing the recursive canonic demisemiquaver version of the pitch-ideas whilst the piccolo plays the first pitch of each version as demisemiquavers on the first, third, fifth, seventh, ninth, eleventh and twelfth durational events in the pattern. A further level of complexity is added by the cor anglais and first clarinet playing the two lowest versions of the pitch-idea together but using a durational pattern based on triplet crotchets, creating an imitative relationship with the string parts; this new layer is itself decorated by the vibraphone playing the pitches in the cor anglais and clarinet as separate sextuplet semiquavers as a recursive canonic pattern in the manner of the piano part.

Section **B2** presents a texture of increased complexity as the four versions of the pitch-idea are heard with the upper two parts in the violins and the lower two shared between cor anglais and the muted brass instruments, using the durational pattern based on crochets. This material is decorated by the piano with the recursive, canonic, demisemiquaver version of the pitch-ideas whilst the flute has the first pitch of each version as quiet, flutter tongued demisemiquavers on the first, third, fifth, seventh, ninth, eleventh and twelfth durational events in the pattern. Against this, the vibraphone plays the first three versions of the pitch-idea as separate sextuplet semiquavers using the recursive pattern (the underlying durational scheme coinciding with the main pattern in crochets), whilst the clarinet and bass clarinets

(doubled by pizzicato lower strings) play the lowest two version of the pitch-idea as separate semiquavers, also in a recursive pattern that moves with the durational scheme in crochets.

Section **B3** has the five versions of the pitch-idea in the strings using the durational pattern with a crotchet tied to a semiquaver as the basic durational unit. This texture is decorated by the piano playing the recursive canonic version of the material in separate demisemiquavers whilst the piccolo and cor anglais play the first five pitches of each version of the idea as separate demisemiquavers on the first, third, fifth, seventh, ninth, eleventh and twelfth durational events in the pattern. Further decoration is added by the clarinet and bass clarinet playing the lowest four versions of the pitch-idea in separate sextuplet semiquavers, by the trumpet, horn and trombone playing the lowest three versions of the pitch-idea in separate semiquavers and by the trombone and bass trombone playing the lowest two version of the pitch-idea in separate triplet crochets; all of these additional layers present the pitch-ideas using the recursive canonic patterning. However, the layer of sextuplet semiquavers has its own version of durational pattern with three rests after each sounding of event 1 and six rests after each of the longer events. Similarly, the semiquaver layer has two semiquaver rests after each sounding of event 1 and four semiquaver rests after all other events in the durational pattern whilst the triplet quaver layer rests for one triplet quaver after event 1 then for two triplet quavers after the longer events; this results in the decorative layers not synchronizing with each other or the main durational pattern.

The final **B** section, **B4**, is also the most complex, featuring seven transpositions of the pitch-idea in the strings using the durational pattern based on the basic unit of a crochet tied to a dotted quaver

(seven transpositions equalling seven semiquavers). This is decorated by the piano playing all seven versions of the pitch-idea as separate demisemiquavers in a recursive canonic pattern and the crotales playing the first two pitches of the highest two versions of the pitch-idea as separate demisemiquavers on the first, third, fifth, seventh, ninth, eleventh and twelfth durational events in the pattern. The layers of further decoration are provided by the flute and bass clarinet playing the lowest five versions of the transpositions of the pitch-idea heard in the strings in separate sextuplet semiquavers, the clarinet and cor anglais playing the lowest four versions in separate semiquavers, the trumpet and trombone the lowest three versions in separate triplet quavers and the horn and bass trombone playing the lowest two versions in separate quavers. All of these layers use recursive patterning and once again, present asynchronous versions of the durational scheme, the sextuplet semiquavers presenting four rests after each sounding of event 1 in their pattern and eight rests after the longer events, the semiquaver layer three and six rests, the triplet quaver layer two and four rests, and the quaver layer one and two rests.

I have labelled the final section of the piece **A/B** as it combines characteristics found in both the **A** and **B** sections. The pitch-idea is presented in twelve versions beginning on F-sharp^{2}, E-natural^{3}, F-natural^{3}, D-natural^{4}, D-sharp^{4}, B-natural^{4}, C-natural^{5}, G-natural^{5}, G-sharp^{5}, C-sharp^{6}, A-sharp^{6} and A-natural^{7}, the starting pitches of each version spelling out, from bottom to top, the primary version of the idea beginning on the pitch-class F-sharp; in this way, the last section presents the musical acrostic that occurs across all of the **B** sections. Yet, as these twelve linear versions of the pitch-idea are presented simultaneously, they also form a sequence of twelve-note chords, and, as such, relate to the defining homophonic textures of the **A** sections.

Thus, just as the first section marks the starting point for both the linear material in the **B** sections and the chordal presentations of the **A** section, the last section acts as the end point for both types of section, creating a teleological sense of culmination and synthesis. In this respect, the accumulation of pitch-layers in the **B** sections and contrasting textures in the **A** sections might be interpreted as the 'constituent events' in the musical 'narrative discourse' revealing a teleological 'story' in which all twelve pitch-layers are at last present and the textural contrasts ultimately unified. However, to apprehend this 'story' a listener would have to be aware of the systematic pitch process at work which, given the complexity of the textures, might not be clearly understood.

In this sense, the pitch process (a fundamental aspect of the teleology) might be considered constructional but not necessarily entirely revealed, acting like a kind of scaffolding supporting the surface structure of textural contrasts. In this case, the clear correspondences between the **A** sections as distinguished from and contrasted with the connections between the **B** sections, plus the recurring percussion gestures, could be considered the 'constituent events' that reveal the 'story' of the musical 'narrative discourse' to be a verse-refrain structure. But because the different types of section within this 'masterplot' formal model, although clearly related, do not repeat exactly but develop their contrasting material, it might be possible that the revealed 'story' relates to another kind of musical 'masterplot': a theme-and-variations 'story'. If this is the case, it could be that the primary version of the twelve-note idea and the characteristic durational pattern are heard as the theme which is varied in each section; alternatively, the piece could be understood as a set of double variations in which the chordal material in the **A** sections is varied in alternation with variations on the linear material in

the **B** sections (the title *Manifestations* might also be suggestive in this regard and contribute to the revelation of a theme-and-variations 'story'). In either case, that is, whether the 'story' is understood as relating to a verse-refrain 'masterplot' or a theme-and-variations 'masterplot', the final section can be understood as a culmination, bringing together verse and refrain or theme(s) and/or types (chordal and linear) of variation, a unifying 'constituent event' that reveals a shared teleology.

Interlude Fragments (273") for Small Ensemble (2010)

The 'constituent events' in *Interlude Fragments (273")* are readily apparent, as is the verse-refrain structure revealed during the course of the work. However, the approach to the structure of the work plays with the concept of a fixed linear teleology as it has a mobile form in which the sections can be played in a number of different orders. The piece was written in response to a call for scores by the French group *Ensemble Décadanse* and was selected for performance in their 'Cage 99' project, a festival to celebrate the life and work of the composer John Cage (1912-93). The call specified that all submitted pieces should last no longer than four minutes thirty-three seconds, a reference to Cage's famous 'silent' work from 1952, *4'33'*. I saw this call as a good opportunity for my music to engage with the idea of indeterminacy (a concept that was important to Cage's thought and practice as an artist and performer) and decided to write a work in which the ordering of the sections could be subject to a number of permutations.

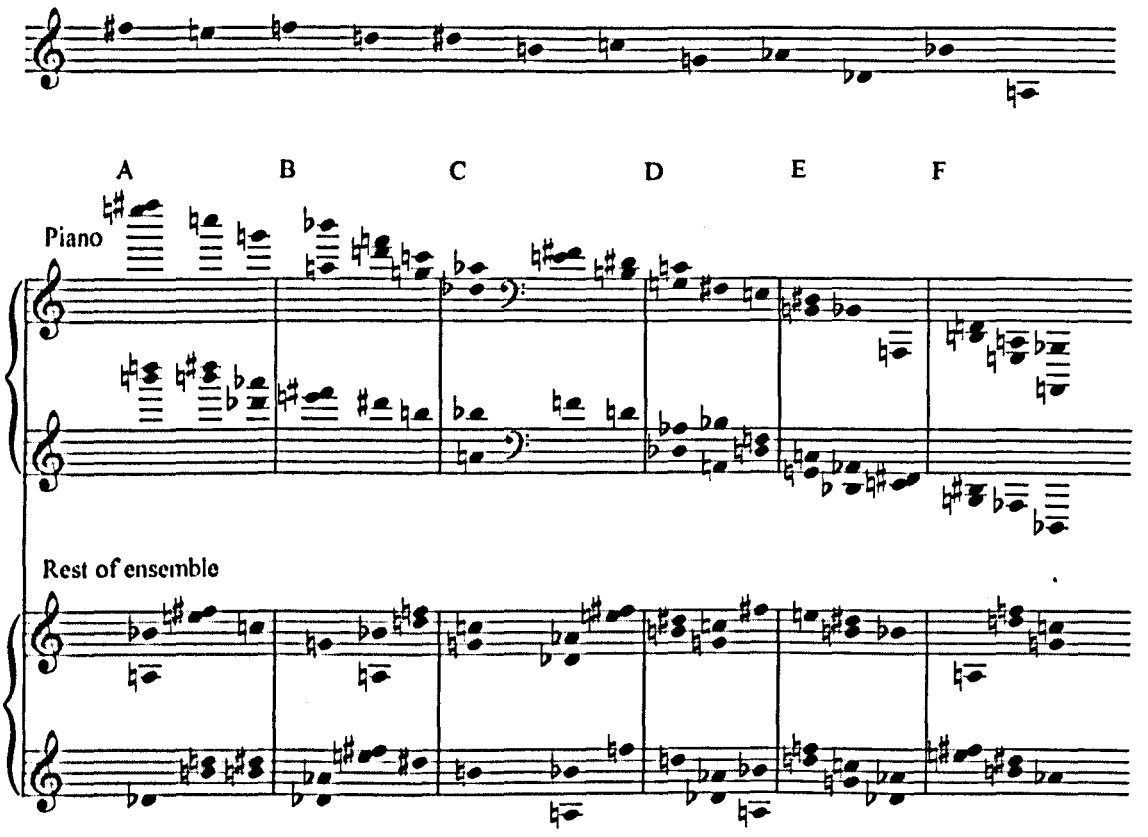
The piece is scored for flute, oboe, alto saxophone, cello and piano, the performing forces used by *Ensemble Décadanse*. The work's sections employ either musical material or silence and all are of a fixed duration as, no matter what the ordering, the piece as a whole must always last two hundred and seventy-three seconds. The total length of the piece is a reference to the work of Cage (as two hundred and seventy-three seconds is equal to four minutes thirty-three seconds) as is the use of measured silence; the title also refers to Cage's *Sonatas and Interludes* for prepared piano. There are six sections containing pitch-material and five silent sections, the former labeled **A** to **F** and the latter numbered **1** to **5**. The idea is that a performance of the piece must start with a lettered section followed by a numbered

section, a pattern that must be repeated throughout with no section being heard more than once; as soon as all of the sections have been heard, the performance is over.

The music in the pitched sections is based on the twelve-note intervallic pitch-idea used in all of the pieces examined so far (apart from *Refrain*) beginning on the pitch-class F-sharp; however, the idea is never heard in its linear form, instead appearing as a series of chords. The piano has the pitch-idea five times in total, in five different octaves (F-sharp^{7}-A-natural^{5}, F-sharp^{6}-A-natural^{4}, F-sharp^{4}-A-natural^{2}, F-sharp^{3}-A-natural^{1}, F-sharp^{2}-A-natural^{0}) arranged as a series of eighteen chords, three in each of the six lettered sections. The first chord of each group of three always has four pitches in it whilst the following two chords always contain three pitches; as a result of this, the different versions of the pitch-idea overlap the sectional divisions. The other instrumental parts also contain the pitch-idea five times in total, but always in the same octave (F-sharp^{5}-A-natural^{3}, the octave not occurring in the piano part); this other version of the pitch-idea is also arranged as a series of eighteen chords (the instruments playing as a homophonic unit throughout) with three chords in each of the six lettered sections, only, unlike the piano part, the first and third chords contain three pitches whilst the second chord contains four.

The chords in the piano and those in the instrumental parts have a canonic relationship: each time the piano moves to a new harmony, the instrumentalists play against it the harmony previously heard in the piano, but in a different octave; this means that the last chord played by the piano in section **F** contains the same pitch-classes as the first chord played by the instrumentalists in section **A**. The pitch-idea, the chordal arrangements of it and the relationships between the chords are shown in the example below:

Ex.25:



The length of each chord derives from the durational pattern based on the intervallic structure of the twelve-note pitch-idea (1 2 1 3 1 4 1 5 1 7 9 13) using one crotchet as the basic unit. As in *Unquiet Nocturne: The Whispering Knights*, the durational value of each harmony in the piano part is the sum of all of the individual durational values of the notes within it if each individual note in the pitch-idea has a fixed value equivalent to its corresponding number in the durational pattern. For example, as the first four notes of the pitch-idea equate to 1 2 1 3 in the durational pattern, the first four-note harmony in the piano part has a total durational value of seven crochets. The resulting durations of every piano harmony heard in *Interlude Fragments (273")* are marked with a loud, accented chord on each crochet beat within

the total value, an unrelenting, mechanical texture which, as the tempo is set at sixty crochets per minute, marks out the exact number of seconds in each of the lettered sections. The canonically related chords played by the rest of the ensemble always occur as a sustained sonority with a *crescendo*, directly in the middle of the durational frame created by the piano harmony.

As the total length of all of the pitched sections in the work adds up to four minutes (or 240 seconds) exactly, the remaining thirty-three seconds are divided up into the five numbered sections, each of which has to occur between two lettered, pitched sections. The lengths of the silent sections are proportionally related, two sections lasting nine seconds, two sections lasting six seconds and one section lasting three seconds. The order of these alternating sections is not the only aspect of the piece subject to an element of indeterminacy as, within the pitched sections, all of the instrumental parts except the piano are optional, the individual performers deciding which of their written pitches they choose to play (although once a player has begun a note, they must play it for its full duration and they cannot enter part of the way through a written duration). This means that some of the sustained chords might be partially sounded, represented by a single pitch or be missing entirely; this is in contrast to the piano part which must be played in its entirety. The degree of flexibility within the other instrumental parts ensures a variety of possible versions of *Interlude Fragments (273")* can exist from performance to performance whilst the nature of these parts is such that the players can make decisions about what and when to play spontaneously, without letting the other members of the ensemble know beforehand. However, although the ordering of the work's sections is flexible, the route through the piece should be decided amongst the group before a performance for reasons of practicality.

As suggested earlier, the lack of a fixed order between the sections has potentially interesting implications for the ways in which the musical narrative might be understood as functioning. If the pitched and silent sections are understood as 'constituent events', the alternation of these two contrasting types could reveal a 'masterplot' verse-refrain 'story', whilst the fact that the instrumental parts apart from the piano are optional and thus inessential to the revelation of this (or any other) structural 'story' means that they can be considered 'supplementary events'. Yet if the sections are played in the order **A** to **F**, there is a teleological dimension to the work in the five-octave descent of the pitch-idea in the piano and in the revelation of all possible permutations of the pitch-idea arranged (according to the original linear order) as eighteen harmonies in groups of three chords containing four, three and three notes respectively (this permutational ordering is also present in the other instrumental parts, but as they are optional, they are not 'constituent events' in this teleological sense either).

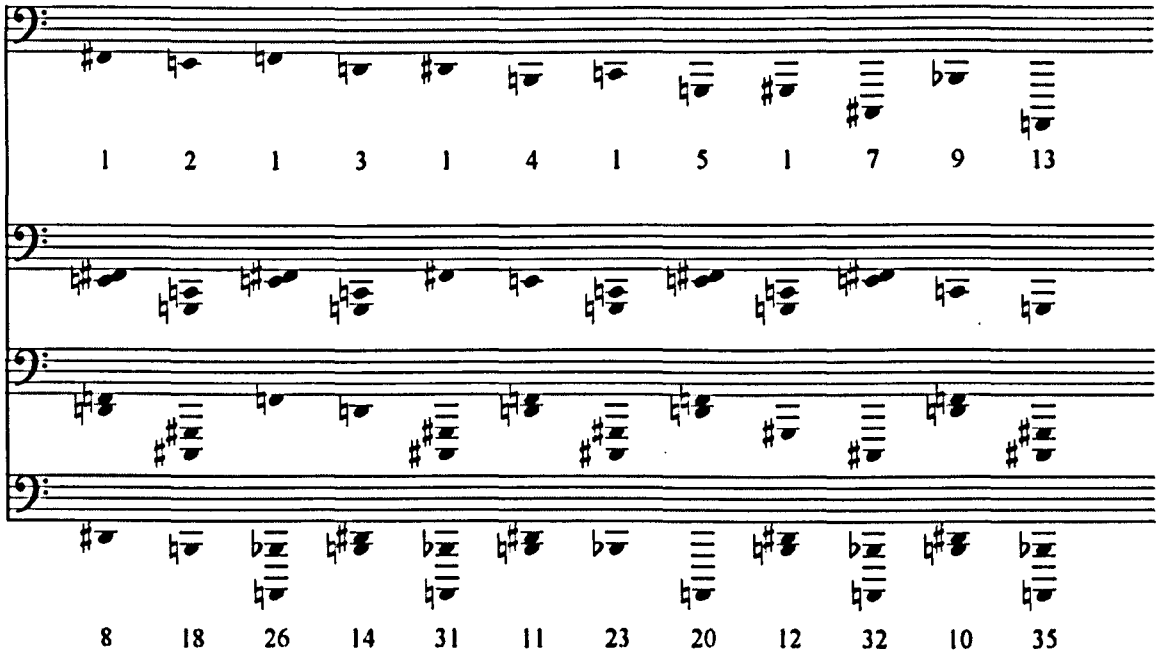
However, due to the absence of a linear presentation of the original pitch-idea and the different possible ordering of the sections, the identity of the underlying musical material is obscure and the teleology of the octave descent is fractured meaning that either or both might not be revealed to a listener. Even if the sections are played in the order **A** to **F**, so as to maximise the possibility of perceiving the descent, the silences between the sections will disrupt the continuity and distort this perception. In this sense, the octave descent and permutational logic of the pitch-material might be considered constructional, part of the musical 'narrative discourse' but not necessarily accessible to a listener. Furthermore, it is also surely the case that someone listening to the piece for the first time might understand the inessential pitch-material in the other instrumental

parts as 'constituent events' (at least in the revelation of the verse-refrain 'story') as the optional status of these parts will not necessarily be apparent. Yet it is also possible that someone who has listened to more than one performance (or, more likely, the performers themselves) might understand the teleology underlying the work. Nevertheless, if the process of narrative perception is, as has been suggested, reconstructive, it is possible that, at some level, the potential teleology of the work will be understood no matter what the ordering of the sections; this understanding might be aided by the title, as the word 'Fragments' suggests that something once whole has been broken up into pieces.

Lullaby for Wind Ensemble and Piano (2010)

The stark textures heard in *Interlude Fragments (273")* are also explored in *Lullaby*, a piece written as a submission for the Thirteenth London New Wind Festival, at which event the work received its premiere in November 2010. Written for the London New Wind Festival Ensemble, the piece is scored for flute, cor anglais, clarinet, bassoon, horn, trombone and piano. This is the last piece under discussion in which I employed the twelve-note intervallic pitch-idea which has provided the pitch-material for most of the work looked at so far. Once again, the descending version of the idea beginning on the pitch-class F-sharp is used, so that when the pitch-idea begins on F-sharp[2], the final pitch is the lowest note on the piano; the durational pattern derived from this idea (1 2 1 3 1 4 1 5 1 7 9 13) is also used. As in *Unquiet Nocturne: The Whispering Knights* and *Interlude Fragments (273")*, the pitches are arranged into a sequence of twelve five-note harmonies with each assigned a total durational value based on the aggregate of the individual durational values of the notes within it (if each individual note in the pitch-idea has a fixed value equivalent to its corresponding number in the durational pattern). The basic durational unit in *Lullaby* is the crotchet, so as the first five notes of the pitch-idea equate to 1 2 1 3 1 in the durational pattern, the first five-note harmony in the sequence has a total durational value of eight crochets. The linear version of the pitch-idea on which the music is based, the harmonies formed from it and their individual durational values are shown in the example below:

Ex.26:



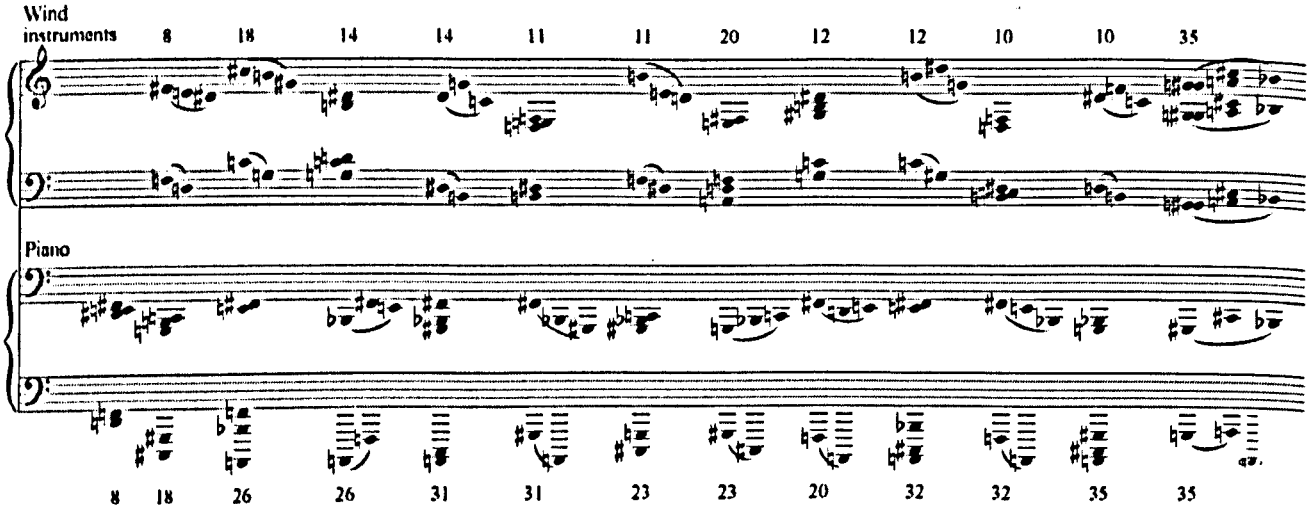
These chords are then arranged canonically, so that every harmony except the first in the sequence is heard in vertical combination with the harmony that precedes it. However, the harmony with the longest durational value in each pair (whether it is the next harmony in the sequence or the imitating harmony) always appears in the lower part of the texture. The overall canonic pattern can be shown by representing the harmonies with their durational values:

Upper part: **8 18 14 14 11 11 20 12 12 10 10 35**
Lower part: **8 18 26 26 31 31 23 23 20 32 32 35 35**

The lower part of this texture is taken by the piano, the upper part by the wind instruments with the upper harmony always occurring directly in the middle of the lower harmony's durational value. The individual

harmonies are presented as either chordal sonorities or as a two-part 'lullaby' figure in which three of the harmony's five pitches are arranged in a descending gesture with the other two providing a counterpoint. As every harmony is heard twice (including the final harmony, which is heard against itself), each is presented as both a chord and a 'lullaby'. The chordal harmonies in the piano always occur at the octave shown in the example above, whereas the chords in the wind instruments and all of the 'lullaby' figures are subject to octave displacement. The example below shows the order of the events (chords and 'lullaby' figures, the latter marked with slurs), the instruments and octave in which they occur and the durational value of the harmony on which they are based:

Ex.27:



The time in which each harmony occurs is equal to the number of crochets in its total durational value (see above), and both happen within the time-frame of the harmony with the longest duration. The event (chordal gesture or 'lullaby' figure) based on the harmony with the shorter duration is always heard in the wind instruments and directly in the middle of the event based on the harmony with the

longer duration in the piano. When the wind instruments enter, the piano stops playing and allows its harmony to ring out, supporting the upper parts, before resuming after the wind entry has finished; this means that every wind entry is bracketed by two piano gestures of equal length.

Within this durational scheme, there are different types of rhythmic event used. When the piano has a chordal gesture, it marks out the durational value as a series of accented crochet chords, the only exception being when the total duration of thirty-one and thirty-five crochets are bisected by upper durations of fifteen and ten crochets respectively, necessitating bracketing gestures of eight crotchets and a quaver and twelve crochets and a quaver either side of the central wind gestures in question (the quavers occurring on the last beat before the wind enter in bars 19 and 61 and the first beat after they have stopped playing in bars 21 and 64). By contrast, when the wind instruments have a chordal gesture, the duration is filled on all but one occasion with two sustained *crescendo* chords, of equal length or unequal length, separated by a quaver rest. If the wind chords are of unequal length, the second chord is always longer than the first whilst on the one occasion that two chords do not appear, when there are, instead, three chords, the second and third chord are of equal length but both are longer than the first (bars 38-40).

The 'lullaby' figures are arranged as two-part gestures; when they occur in the wind instruments, they are always presented canonically, in three two-part entries, each entry using shorter note-values than that which preceded it and always completing a full set of entries within the durational space available; the entries are repeated if the durational space in question is long enough to allow it. The two-part 'lullaby' figures in the piano always occur twice, bracketing the

chordal gesture in the wind with the note-values also filling the durational space available. The only time that the piano engages with the canonic entries in the wind instruments is in the closing passage between bars 67 and 73, when the final harmony is heard against itself in four different octaves. The descending contour and dissonant harmonies in the 'lullaby' figures and the violent nature of the chordal gestures might imply that the title of the piece, *Lullaby*, is meant to be ironic; this is, to some extent, true. However, the mournful nature of the 'lullaby' figures was suggested by the idea that the generic musical characteristics of a lullaby (short, descending, *legato* gestures) are similar to those of another recognisable musical *topos*: the lament.

The clear distinctions between the chordal material and the 'lullaby' figures might allow them to function as 'constituent events' in the musical 'narrative discourse', revealing a verse-refrain 'masterplot' musical 'story'. But the fact that the material is based on chordal permutations of an underlying linear pitch-idea arranged according to the principles of canonic imitation (at the pitch-level) might suggest the potential revelation of an underlying teleology. Similarly, the use of a single pitch-idea presented in different chordal and contrapuntal textures might also suggest the existence of a theme-and-variations 'masterplot'. Yet the immediate rhetorical impact of the work really relies on the stark contrasts between its gestures, their surface differences potentially overriding any underlying coherence. The chordal music, although based on the same pitch-material, is actually intended to seem separate, either framing or being framed by the quieter music, perhaps suggesting opposing states of being. When heard in connection with the title, this opposition might be thought to embody a fearful wakening compared to the slumber of the 'lullaby' music. In this sense, although the title refers to a conventional musical *topos*, the extra-musical ideas associated with that *topos* might feed

back into an understanding of the musical 'narrative discourse' and infer the potential revelation of an extra-musical 'story' or, at least, an emotional hinterland that, although suggested, remains obscure.

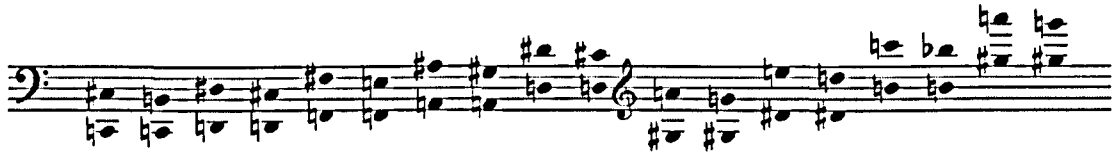
Three Studies for Movements from an Unwritten Passion for Solo Cello (2010)

The process of using the twelve-note intervallic pitch-idea to create the two-part textures in *Lullaby* made me think differently about my approach to this particular piece of musical material. Until this point, I had consciously tried to base all of my music from *Refrain* onwards on some version of this pitch-idea as I felt it gave my work an identity, providing underlying coherence and connections whilst always offering possibilities for reconfigurations and transformations. I understand this pitch-idea as being defined by the intervals within it, giving it a distinctive, expanding shape and, when isolating pairs of intervals from this material to generate the two-part 'lullaby' figures in *Lullaby*, I wondered if I might extend the principle of intervallic expansion in the twelve-note idea to create a new two-part pitch-idea that explored this principle in a different but related way. The resulting musical idea is defined by the principles of intervallic expansion and canonic imitation, two musical concepts central to my compositional methodology.

The idea begins with two events: a vertical interval of a minor 9th followed by a vertical major 7th; this is created by the top part of the texture falling by a major 2nd whilst the lower part sustains its pitch. The next event has the top part rising a major 3rd whilst the lower part rises by a major 2nd resulting in a new vertical minor 9th which falls to a new major 7th in the fourth event, the top part descending by a major 2nd whilst the lower part sustains its note. The sequence then progresses using the same pattern (minor 9th followed by major 7th) only with the rising horizontal intervals (between the even-numbered pitch-events and the odd-numbered pitch-events that follow them) expanding by a semitone each time. This means that the horizontal interval in the

lower part between event six and seven in the pattern is a major third, imitating the interval in the upper part between events two and three and making clear the canonic principal at work in the idea. The pattern continues until the rising horizontal interval in the upper part is a major 7th (between pitch-events sixteen and seventeen); the example below illustrates this new pitch-idea, starting on a C-natural^{2}-C-sharp^{3} dyad:

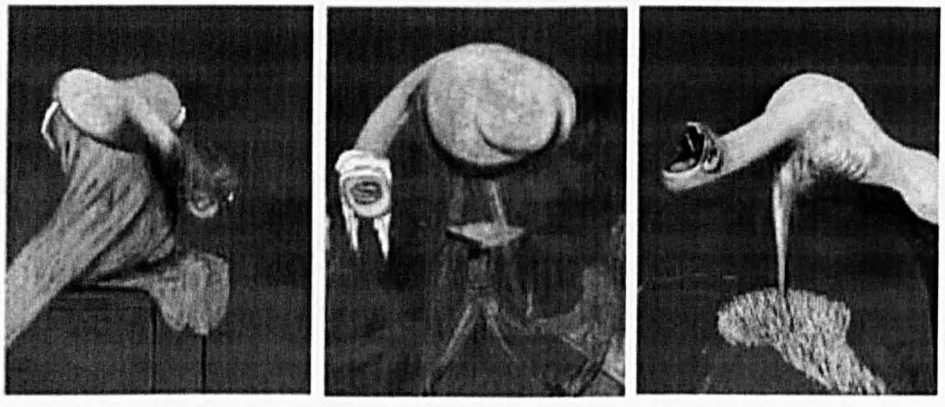
Ex.28:



If the pattern was extended, the next rising horizontal interval in the upper part would be an octave. In this new pitch-idea, as in the twelve-note expanding intervallic pitch-idea, avoidance of direct octaves provides a governing, grammatical principle, allowing for a logical end to the pattern; indeed, with its characteristic use of vertical minor 9ths and major 7ths, this whole idea involves a close proximity with, but ultimate avoidance of, the octave. However, unlike the earlier pitch-idea, this material is not necessarily bound by a sequence of twelve pitches, comprising as it does, eighteen horizontal pitch-events.

The first work based entirely on this new pitch-idea was *Three Studies for Movements from an Unwritten Passion*, a piece written as an entry for a competition requiring music for solo cello. My starting point for this piece was J. S. Bach as, at first, I wished to engage with the kinds of texture found in his *Suites* for cello. However, the title is an oblique reference to a triptych painted in 1944 by the artist Francis Bacon called *Three Studies for Figures at the Base of a Crucifixion*:

Fig.2:



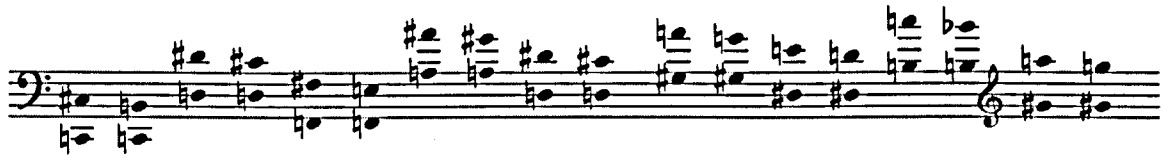
Three Studies for Figures at the Base of a Crucifixion (1944)
by Francis Bacon (1909-92)

I had wanted to write a piece of music in response to Bacon's work for some time and the two sources of inspiration (Bach and Bacon) were connected in my mind when it occurred to me that that the musical equivalent of the crucifixion triptych in visual art might be the setting of the biblical *Passion*. To this end, I wanted to create a stylised re-imagining of vocal types found in *Passion* settings, but violently distorted and starkly presented in a way analogous to the figures in Bacon's work whilst also using textures that engage with the Bach *Suites* for cello. As the Bacon work is a triptych, I decided that I would write a piece in three movements, each movement also acting as a study for the new intervallic pitch-idea on which the musical material is based.

In the first movement, 'Chorale', the pitch-idea is presented in its basic dyadic form as a series of aggressively articulated double stops. The music employs the same pitch-classes as the original pitch-idea but uses octave displacement between pairs of pitch-events so that all of

the events are achievable within the range of the cello whilst creating a contour that rises in uneven steps:

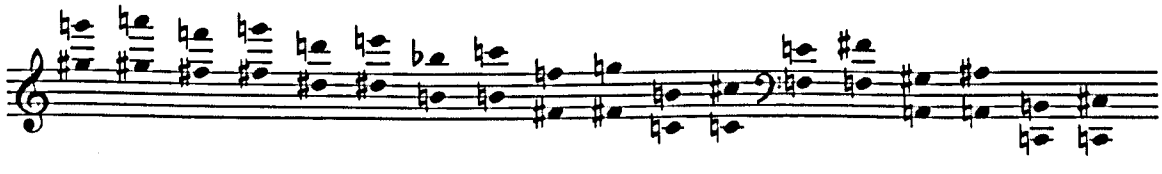
Ex.29:



This material is presented incrementally and recursively (each time a new pitch-event is introduced the music moves backwards through the sequence and begins again: 1, 1, 2, 1, 2, 3, 2, 1 etc.) in a rhythmically undifferentiated sequence of accented crochets. However, the music has an expanding event-rhythm as the pitch-idea unfolds are re-folds during the course of the piece, getting steadily longer each time, before ending after the only presentation of the idea in its entirety between bars 62 and 66.

The second movement, 'Lament', is based on an inverted form of the pitch-idea beginning on a G-sharp^{5}-G-natural^{6} dyad (the final event in the original version of the pitch-idea; this inversion ends on the starting event of the original version of the pitch-idea):

Ex.30:



This idea is divided up into pairs of adjacent pitch-events (1 and 2, 3 and 4, etc.) so that the repeated pitch in each pair is sustained as the lower voice in a two-part texture. The first pair of pitch-events is an

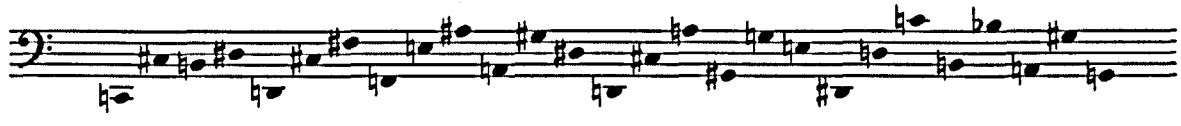
octave lower than in the example above but the overall contour of the music outlines exactly the same descent as the example until the last four pitch-events (the final two pairs) which are an octave higher than they should be due to the range of the cello (thus they are heard at the octave shown above). The pairs of pitch-events are presented as three-note mordent-like figures with the higher of the two upper pitches heard first; this is articulated as two demisemiquavers and a dotted quaver tied to a crochet over a lower sustained minim. This gesture always forms the first two beats of a three-beat unit, the third crochet of which sounds the first pitch-event of the next pair in the overall sequence.

The pattern in which the pitch-idea is presented is recursive so that each time the first pitch-event of a new pair is heard the music moves back to an earlier point and starts again. In bars 1-21, the music moves back to the beginning of the sequence but in bar 23, the music begins again from the second pair of pitch-events (3 and 4). From this point on, the music always re-starts from a later point in the sequence: the fourth pair of pitch-events (7 and 8) in bar 30, the fifth pair (pitch-events 9 and 10) in bar 36, the sixth pair (pitch-events 11 and 12) in bar 42 and the seventh pair (pitch-events 13 and 14) in bar 47. The movement ends with the solitary presentation of final pair of pitch-events (17 and 18). This material is arranged into mordent figures that descend over a falling lower part (related to the lament-like figures in *Lullaby*), each gesture occurring in the space of three regular crochet beats. However, after the sounding of the first pitch-event from the third pair of events (pitch-event 5, in bar 3), there is a crochet rest before the sequence starts again. A similar moment of silence subsequently appears each time the music reaches the first pitch-event of the next pair in the overall sequence; however, the silence gets longer by a crochet each time so that the rest before the final

pair of pitch-events in bar 51 (after the first event from this pair has been heard on the last beat of bar 48) is ten crochets long.

The piece ends with a movement entitled 'Fugue', as this form has a vocal origin. The use of the title also refers to the presence of vocal fugues in *Passion* settings and the generic tradition of ending multi-movement works with fugal finales. As in the first movement, the music is based on the original version of the pitch-idea, only with the dyads now arranged as a compound melody, using octave displacement to create a contour that steadily rises before a short final descent:

Ex.31:



This linear material is presented incrementally using a recursive pattern that moves backwards through the sequence of pitches and starts again every time a new pitch-event is heard (enharmonic re-spellings of some of the pitches are used for the sake of clarity); this is the same type of patterning used in the first movement. The rhythmic surface of the music in the finale is also like that of the first movement in that it is made up of undifferentiated accented crochets through which an expanding event-rhythm is revealed, although this time, the performer plays *pizzicato* at a loud volume throughout. As there are a total of twenty-seven pitches in the idea, the sequence restarts again twenty-seven times.

The expanding horizontal dimension of the pitch-presentation is joined by an expansion in the vertical aspect in bar 125, the point where the sequence begins again for the twenty-second time. From this bar until

bar 137, the pitch-idea is harmonised a perfect 5th higher; then, in the passage from bar 138 to bar 151 (the twenty-third restarting), a further layer of harmony a perfect 5th higher than the previous layer is added to the two parts already present. When the pitch-idea begins again for the twenty-fourth time in bar 152, yet another layer is added, a perfect fifth higher than the layer added in the foregoing passage, meaning that the idea is now heard in four parts moving in parallel fifths. This is meant to be a parody fugue, the interval of a perfect 5th being associated with fugal entries, but the use of parallel 5ths strictly forbidden in the teaching of academic fugal writing; the lack of any truly contrapuntal texture also makes the title of the movement seem somewhat ironic. The additional lines drop out in the order that they entered when the pitch-idea begins again for the twenty-fifth and twenty-sixth times (bars 166 and 181) before a return to a single-line texture for the final, complete presentation of the pitch-idea from bar 197.

The addition then subtraction of musical lines towards the end of the finale means that there is a sudden intensification then relaxation of activity at this point that could function as a climax in the musical 'narrative discourse' of the movement, revealing a teleological 'story'. There is also a sense of teleology in the incremental revelation of the linear pitch-idea, in which case the low, open-string C-natural^{2}s with which the pitch-idea restarts (the only time this pitch is heard) could function as 'constituent events', the ever-increasing temporal distance between each instance of this pitch revealing the expanding nature of the pitch-pattern segments. The same principle can be heard in the first movement in which the beginning of the pitch-idea is marked by a C-natural^{2}-C-sharp^{3} dyad and which could, likewise, function as a 'constituent event', helping to reveal the underlying teleological 'story'.

The second movement employs the incremental revelation of an underlying pitch scheme too, although the sense of teleology might be somewhat confused by the presence of the silences in the texture and by the fact that, after a certain point, the pitch-idea does not start again from the beginning. As such, it might be the case that the silences could be understood as a durationally-expanding refrain and, along with the passages of pitch-material, function as a 'constituent event' in the revelation of a verse-refrain 'story'. But the fact that this movement is strongly differentiated from those surrounding it (in terms of the texture, rhythmic surface and version of the pitch-idea used) and the fact that there are, by contrast, strong similarities between the outer movements (they both use the same version of the pitch-idea, recursive patterning and crochet-based surface) means that it could function as a contrasting 'B' section in an overarching ternary-form 'masterplot' 'story' that encompasses the whole piece.

The movements are all linked through references to recognisable musical conventions, such as the suggestion of Bach's *Suites* for cello (in the use of undifferentiated rhythmic textures with an underlying harmonic rhythm that moves in different ways) and the mordent figures, a typical gesture associated with the Baroque. These features site *Three Studies for Movements from an Unwritten Passion* in a wider musical tradition, as does the use of even more generic musical *topoi* like the chorale texture in the first movement, the 'lament' gestures in the second and the parody fugue in the finale. The combination of the individual movement titles, the musical *topoi* and the overall title might well serve to imply the existence of a musical/extra-musical 'narrative discourse'.

However, it is not immediately clear what the 'story' revealed through this musical/extra-musical 'narrative discourse' might be. That the

'Passion' in the title of my piece is described as 'Unwritten' is an allusion to Francis Bacon's *Three Studies for Figures at the Base of a Crucifixion*, in which the crucifixion mentioned remains unseen. For this to be understood, a copy of the programme note and/or familiarity with the iconography would probably be necessary. In this sense, the role of Bacon's work might be considered constructional, part of the process of composition but not necessarily revealed through the musical 'narrative discourse', which can be understood as functioning through the 'constituent events' formed from the combination of its intra-musical and meta-musical features. Yet even if the extra-musical dimension provided by Bacon's triptych is understood, it is still not clear what is revealed as the 'story' in the 'narrative discourse' of the paintings is itself distorted and unclear. For this reason, the 'story' in the combined musical/extra-musical 'narrative discourse' in my piece might remain necessarily ambiguous.

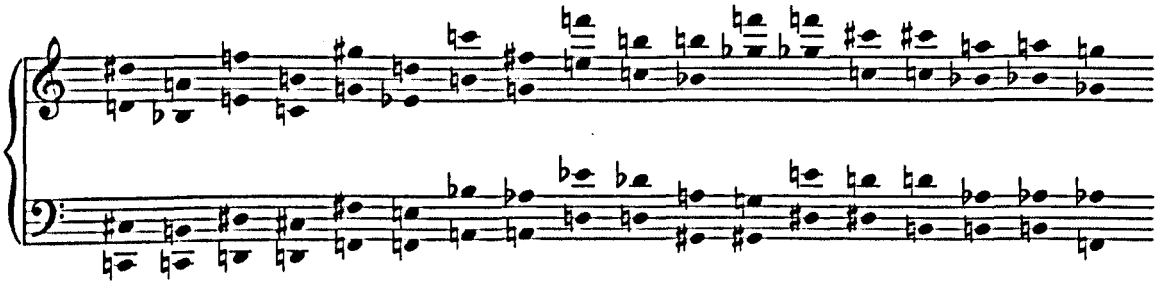
Response for Small Ensemble (2010)

The intervalically-expanding pitch-idea explored in *Three Studies for Movements from an Unwritten Passion* also forms the basis of the music in *Response*, a work for alto flute, bass clarinet, percussion, violin, cello and piano. However, the original dyadic version of the idea is vertically extended to produce a sequence of eighteen four-pitch harmonies; this new pitch-idea is also governed by the same principles of intervallic expansion and canonic imitation. It begins with a four-note pitch-event: C-natural^{2}-C-sharp^{3}-D-natural^{4}-D-sharp^{5}; for the next pitch-event, the lowest note is repeated whilst the second, third and fourth pitches, from lower to higher, fall by a major 2nd, a major 3rd and a tritone respectively, creating a C-natural^{2}-B-natural^{2}-B-flat^{3}-A-natural^{4} harmony. In the third pitch-event, the lowest note of the harmony rises by a major 2nd whilst the upper notes (lower to higher) rise by a major 3rd, a tritone and a minor 6th, creating a D-natural^{2}-D-sharp^{3}-E-natural^{4}-F-natural^{5} harmony. The sequence continues in this fashion, with the lowest note sustained beneath a falling major 2nd, a falling major 3rd and a falling tritone between odd-numbered and even-numbered pitch-events but with the rising horizontal intervals between the even-numbered and odd-numbered pitch-events expanding in size by a semitone each time. This is the case until the tenth pitch-event; at this point, the upper part should rise by an octave to the highest pitch of the eleventh pitch-event, but to avoid the direct octave, it remains on the pitch at the same octave.

To accommodate the avoidance of a direct octave, the other intervals are inverted, the next voice down falling by a major 2nd instead of rising a minor 7th, the second voice falling by a major 3rd (enharmonically respelled) instead of rising by a minor 6th and the lowest part falling a tritone instead of rising by the same interval.

Another adjustment to the pattern is made between pitch-events eleven and twelve as the upper parts perform an inversion, rising instead of falling (a minor 6th instead of a major 3rd, and a tritone) whilst the lower voices behave in the expected manner. From this point on, further adjustments to the voicings have to be made to avoid horizontal octaves as parts begin to swap pitches, and to keep the widely-spaced harmonies characteristic of the pitch-idea. As a result, the top two parts swap around in pitch-event thirteen, the second and third voices swap in event fifteen (so that the tritone is in voice two and the major second in voice three) until the tritone fall between pitch-events seventeen and eighteen occurs in the lowest voice with the minor 2nd, the major 3rd and the major 2nd in the other voices (from lower to higher); this gives the complete pitch-idea an arch-shaped contour that rises until pitch-event ten and falls away to pitch-event eighteen:

Ex.32:



Therefore, the pitch-idea can be understood as dividing into two uneven parts: pitch-events one to ten and pitch-events eleven to eighteen, pivoting on the falling tritone in the lowest voice. This division is made manifest in the overall structure of the work, which is made up of four sections: **1** (bars 1-17) **2** (b.18-30) **3** (b.32-45) **4** (b.46-78). These sections delineate a larger structural division into two parts: sections **1**, **2** and sections **3**, **4**. Sections **1** and **2** are based on pitch-events one to ten and eleven to eighteen respectively, whilst sections **3** and **4** are

based on pitch-events eighteen to eleven and ten to one respectively, meaning that, in pitch terms, the second large part of the piece is a retrograde of the first.

In section **1**, the pitch-events one to ten are presented incrementally and recursively, the sequence moving backwards and starting again each time a new pitch-event appears (1, 1, 2, 1, 2, 3, 2, 1 etc.). The piano begins the pattern with four loud, accented crochet chords but the fourth chord is sustained for four further beats instead of moving again to pitch-event two. During these four beats, the wind and string instruments quietly echo the last three chords of the previous piano bar but as triplet minims instead of crochets; this type of imitative texture is maintained throughout the piece, the instrumentalists responding to each other in alternating gestures. The piano continues to reveal the first ten pitch-events incrementally and recursively every other bar, each time adding a new pitch-event then moving backwards to event one, but always within the space of four crochet beats; this means that the piano part proceeds in increasingly shorter note-values as more pitch-events have to be squeezed into the space of four crochet beats. The wind and string instruments continue to echo the piano but always starting from the second pitch-event as the first is sustained in the piano during their material. These gestures also occur within the space of four crochet beats and so use progressively shorter note-values, although as they always have one pitch-event less than those in the piano, they are always slightly longer than the values being echoed. This pattern continues until bar 17 at which point the piano sounds pitch-events one to ten for the first time. Then, instead of moving backwards to the beginning of the pattern, pitch-event ten is sustained (as a result, this gesture occurs during two crochet beats), marking the end of section **1**.

Section **2** is based on pitch-events eleven to eighteen; as with events one to ten, this latter part of the pitch-idea is revealed incrementally and recursively, only this time, the pattern begins in the winds and strings instead of the piano. This section also begins with four loud accented crochet chords, the last three of which are echoed quietly by the piano in triplet minims. The pattern then proceeds as it did in section **1** with the wind and string instruments adding a new pitch-event in each subsequent gesture then moving backwards through the pattern to event eleven. As in the first section, these gestures always occurs within the space of four crochet beats and so use increasingly shorter note-values whilst the piano imitates but with one less pitch-event in fractionally longer note-values. The percussion provides additional colour in each section, marking the piano entries with a resonant stroke on the tam-tam in section **1** and adding accented articulations on the tenor drum to the wind and string chords in section **2.** The latter section comes to a close in bar 30 as pitch-events eleven to eighteen are heard for the first time in the winds and strings, at which point the sequence is abruptly cut off instead of moving backwards to pitch-event eleven; this also represents the major structural division in the overall piece, the moment marked by a loud strike on the tam-tam in bar 31.

As already mentioned, section **3** is based on the retrograde of the second part of the pitch-idea. The section begins in bar 32 with a loud piano gesture that presents pitch-events eighteen to eleven before moving backwards and finishing on event seventeen, making fourteen chords in total. The rhythmic profile of this gesture is a written-out *rallentando* figure in the space of four crochets, beginning with quintuplet semiquavers and ending with two quavers; it is followed by a rest of four beats, into which the final chord of the gesture (pitch-event seventeen) is sustained. The pitch-events in this gesture are

echoed in retrograde by the winds and vibraphone in bar 34, starting with event seventeen moving to event eleven before moving backwards and finishing on event sixteen. The rhythmic profile of this gesture is also a written-out *rallentando* starting on quintuplet semiquavers; as it has two chords fewer than the piano gesture, it is shorter, beginning on the second of four crochet beats and ending with triplet quavers. The rest of the material in this section continues with this pattern of imitative entries between the instrumentalists, each presentation of the pitch-events having two chords fewer than the previous entry. Most of the gestures occur within the space of four beats followed by four beats rest, although two of the later entries stray into the following rest. As the number of chords in each gesture decreases, so the note-values in the written-out *rallentandi* get longer until pitch-events twelve and eleven are heard as two minims in bar 44. Thus section 3 presents an incremental subtraction of pitch-events and a gradual slowing-down in the durational profile when, by contrast, sections **1** and **2** presented an incremental addition of pitch-events and a durational profile that gradually sped up. The dynamics in the section begin loudly before getting progressively quieter in the following entries, a process that begins again in bar 38.

Section **4** is based on the retrograde of the first part of the pitch-idea and starts with sixteen loud, accented chords in winds, strings and vibraphone; these chords begin on pitch-event ten before moving sequentially to pitch-event two then back to pitch-event nine. The chord are at first presented as triplet crochets before another written-out *rallentando* means that the gesture finishes on the fourth bar of the phrase in crochets. The section then continues with a series of imitative entries in the manner of section **3**, only now the music begins in the winds, percussion and strings. The material in each gesture starts a chord later than the previous entry and finishes a chord earlier, thus

presenting a pattern in which the pitch-events are incrementally removed. Like in the previous section, the note-values in the written-out *rallentandi* get longer as the entries contain fewer events, thus presenting a durational scheme that seems to gradually get slower; these gestures are usually followed by three crochets rest but sometimes by four. Unlike in the previous section, the final pitch-event from this part of the idea (pitch-event one) is withheld, not being heard until the last single-chord gesture in bar 76. This is also the only place in the whole piece which employs a *crescendo* marking. The dynamics in this section are initially quite volatile, although there is a gradual decrease in the volume of the gestures from bar 59 until the final chord. Apart from the initial use of the vibraphone, the percussion in the final section is limited to the use of a suspended cymbal marking out the entries of the wind and string instruments, a colouristic gesture that is meant to provide a timbral rhyme with the use of the tam-tam in section **1**. This suggested correspondence between the outer sections accords with the overall patterning of the pitch-material: as the final section uses a retrograde of the pitch-events in the first section but presented differently, so a different but related kind of metallic percussion instrument is used to punctuate the gestures.

The relationship between the pitch-content of the outer sections is part of the overall pitch-symmetry in the piece as a whole, the second larger part of the work (bars 32-78) reflecting the first part in using the retrograde of the pitch-idea. In this sense, these two versions of the pitch-idea could represent 'constituent events' in the musical 'narrative discourse', revealing a 'story' of two symmetrical teleologies, one moving towards a point of arrival, the other moving back to the point of origin. That this pitch-symmetry is presented using durational schemes that seems to gradually get faster in sections **1** and **2** and gradually get slower in sections **3** and **4** might also

contribute to the revelation of this 'story', serving to emphasise the teleologies. Yet neither durational process is smoothly linear, the accelerating pattern heard in section **1** beginning again in section **2** and the decelerating patterns restarting in each gesture in the final two sections (although as the gestures in section **4** use longer note-values than section **3**, this part of the piece presents greater continuity in its process of deceleration).

The second larger part of the piece (sections **3** and **4**) is actually meant to present a distorted reflection of the first, an idea outlined in the programme note. Even without the programme note, I would hope that a listener would hear that the piece falls into two contrasting parts and that the loud tam-tam stroke might act as a structural signal in this regard, functioning as a 'constituent event' along with the pitch-idea and the durational patterns. In fact, in the programme note, I describe the second part as a response to the first part, and so the title might also help to clarify the overall structure. However, the title might be understood as more obviously relating to the characteristic texture employed in the piece, in which one gesture is echoed by another; in this sense, the title can be interpreted as referring to the musical concept of imitation or call-and-response. Even without knowledge of the title, it is possible that the slightly altered, imitative repetitions of the gestures could function as 'constituent events', revealing a musical 'story' similar in essence to a verse-refrain structure.

Heavy Toccata for Solo Harpsichord (2011)

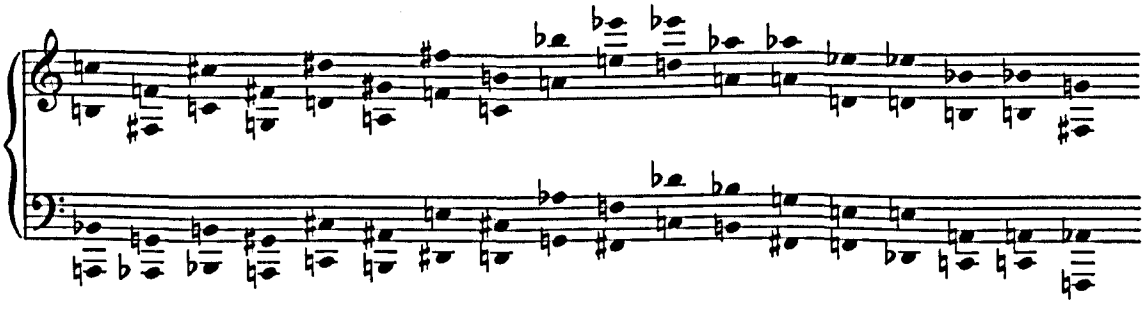
The next piece under discussion was written for the harpsichordist Jane Chapman and was premiered by her in a recital given at the University of Liverpool in March 2011. The pitch-idea in *Heavy Toccata* is related to that used in *Response* in that it is a sequence of eighteen four-pitch harmonies governed by the principles of intervallic expansion and canonic imitation. This begins with an A-natural[1]-B-flat[2]-B-natural[3]-C-natural[5] chord. However, the lowest note then falls by a minor 2nd, the next note up falls by a minor 3rd, the note after that falls by a perfect 4th and the top note falls by a perfect fifth to make an A-flat[1]-G-natural[2]-F-sharp[3]-F-natural[4] harmony in the second pitch-event. For the third pitch-event, the lowest note then rises by a major 2nd, whilst the other three notes, from lower to higher, rise by a major 3rd, a tritone and a minor 6th (enharmonically respelled) respectively to create a B-flat[1]-B-natural[2]-C-natural[4]-C-sharp[4] chord. The pitch-idea then proceeds according to this pattern with the rising horizontal intervals between the even-numbered and odd-numbered events increasing in distance by a semitone each time whilst the horizontal intervals between the odd-numbered and even-numbered events are always (from lowest note to highest) a falling minor 2nd, a falling minor 3rd, a falling perfect 4th and a falling perfect 5th.

This pattern continues until pitch-events nine and ten where the second highest voice rises by a perfect 5th instead of falling by a perfect 4th whilst the top voice rises by a perfect 4th instead of falling by a perfect 5th. Just as in the pitch-idea used in *Response*, the top voice would have to leap an octave higher between pitch-events ten and eleven, and I wanted to keep the pitch in the same octave. If I had done this after having had the top two voices fall between pitch-events nine and ten, I would have had to have made the lowest voice

fall by a tritone between events ten and eleven to maintain the wide spacing of the harmony in pitch-event eleven. As adjustments to the voicings have to be made to avoid horizontal octaves and to keep the widely-spaced harmonies characteristic of the pitch-idea subsequent to pitch-event twelve, the lowest voice has to keep descending after this point; if the lowest voice had fallen by a tritone between events ten and eleven, this necessary descent would have taken the pitch-idea beyond the range of the harpsichord. However, by inverting the intervals in the top two voices between pitch-events nine and ten, the lowest voice could continue its rising pattern between events ten and eleven then begin its necessary descent from event twelve whilst remaining within the range of the keyboard.

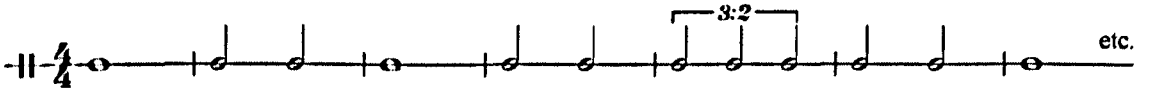
Between pitch-events twelve and thirteen, the top two voices swap positions; then, between events fourteen and fifteen, the next two voices swap parts so that the falling perfect 5th between events fifteen and sixteen occurs in the second from bottom voice whilst the falling minor 3rd occurs in the second from top voice. Finally, all of the parts swap voices in event seventeen so that the falling perfect 5th between this and the final event occurs in the lowest voice whilst the falling minor second happens in the next voice up; similarly, the falling perfect fourth moves from the top voice to the next part down meaning that the falling minor 3rd between the final events occurs in the highest voice:

Ex.33:



The intervallic patterning in this sequence of harmonies gives an asymmetrical arch shape to the overall contour of the pitch-idea. The pitch-level of the idea was chosen so that its lowest pitch is the lowest note of the harpsichord; the music in *Heavy Toccata* is comprised solely of these chords in this register, presented as a consistently homophonic texture. This pitch-idea is revealed incrementally and recursively during the course of the piece, the sequence moving backwards and beginning again each time a new pitch-event is reached (1, 1, 2, 1, 2, 3, 2, 1 etc.). This pattern of pitch-event revelation is superimposed onto a recursive durational scheme in which a durational space four crochet beats in length is progressively filled with more rhythmic events, the scheme moving backwards and starting again each time a shorter note-value occurs:

Ex.34:



Both the pitch-pattern and the durational scheme unfold during the course of the work, meaning that it is effectively a process-piece in which the number of pitch-events and rhythmic events incrementally increases. However, as the first four-beat durational event is not immediately repeated, the pitch-event sequence and the durational scheme do not move in exactly the same way, the first events in each pattern do not necessarily coincide. In bar 69, an alteration is made to the durational scheme in that this bar should have been filled with five rhythmic events (as the scheme is, at this point moving backwards). Instead, the bar contains seven durational events, effecting a change of schematic direction that sees the following bar contain eight rhythmic events and the next bar nine events. This means that the final bar should have ten rhythmic events but, as the last and only

complete presentation of the eighteen pitch-event sequence begins on the fifth quaver of bar 70, there are only five of the expected ten rhythmic events so that the music seems as if it has broken off unexpectedly.

This rhetorical ending gesture relates to the title of the work, *Heavy Toccata*. As I was writing for a harpsichord, I wanted to reference Baroque music in some way; as I wished to compose a relatively short but flamboyant piece, I decided to write a *toccata* (the word used by many baroque composers to describe such music) and the idea for the piece developed out of this decision. The word 'toccata' derives from the Italian 'toccare', meaning 'to touch' whilst the word 'touch' is used in English to describe the act of controlling a football. To take a 'heavy touch' in football means the ball is mis-controlled so that it moves away from the player. My idea was that the performer should sound as if he/she is never quite in control of the music, the tempo seeming to speed up and slow down whilst playing a sequence of chords that seems like it might never end. Then, just as the listener might be used to the ebb and flow of the durational scheme and just as the pitch-pattern is coming to its conclusion, the music suddenly seems to speed up unexpectedly, finally escaping the performer at the last.

The programme note explains the idea behind the piece and, with the title, might make the processes in the work clearer to a listener. However, the word 'Heavy' in the title also refers to the nature of the music, the performer having to strike chords more aggressively at a faster rate leading to an increasingly dense texture. The textures at the end of the work relate more clearly to the virtuosic Baroque conventions suggested by the use of the word 'toccata', but they also engage with the nature of the instrument they are played on. As the

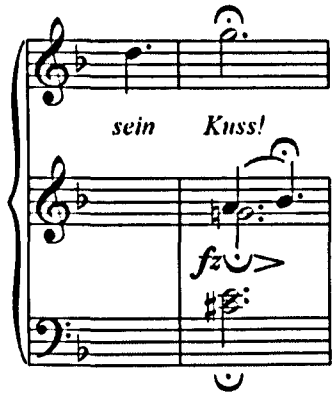
harpsichord has no real sustaining or dynamic power, textural density is required to create a sustained effect; the fact that *Heavy Toccata* begins with isolated, unsustained chords that seem to move towards textural density only to recede again means that the final passage, in which this texture seems at last to be achieved, can function as a point of climax or arrival.

In this sense, the final continuum of chordal sonorities can be understood as the end point of a teleological structure, the textures of the work functioning as 'constituent events' in the revelation of this 'story'. This understanding of the work also accords with the underlying teleology involved in the incremental revelation of the pitch-idea, although if this idea was not known to the listener already, it could be considered constructional, or, at least, not necessarily revealed. Yet the durational scheme might be considered more readily accessible, the number of rhythmic events clearly increasing and decreasing; this allows for the creation of expectation in the musical 'narrative discourse' and means that the alteration of the pattern at the end of the piece has a rhetorical impact through the confounding of expectation. On the other hand, the superimposition of the recursive pattern of pitch-events might serve to complicate the clarity of the durational scheme as the event-rhythm unfolds at a different rate, setting up a different but simultaneous level of expectation. However, the fact that the moment of maximum rhythmic intensity coincides with the completion of the pitch-idea means that both patterns move towards a point of culmination and could function as 'constituent events' in the revelation of the teleological musical 'story', although this involves both a sense of closure on the pitch-level (the pattern is completed and the lowest note on the harpsichord is reached) and surprise in the durational aspect (the expected pattern breaks down).

Triptych for Piano Trio: Schubert's Kiss for Piano, Violin and Violoncello (2011)

This piece was written as an entry for a competition called "Franz Schubert and Modern Music" which requested the composition of new music for piano trio. I had been considering writing a work that involved the use of some kind of musical quotation and felt that this competition represented a good opportunity to explore this idea. I have always been fascinated by the intensity of the dissonant climax in the lied *Gretchen am Spinnrade*, D.118 (1814, pub.1821, Op.2) for soprano and piano by Franz Schubert (1797-1828) and its relevance to the competition was obvious; the chosen quotation is the final pause chord of this climactic phrase, along with its vocal anacrusis (bars 67-68):

Ex.35:

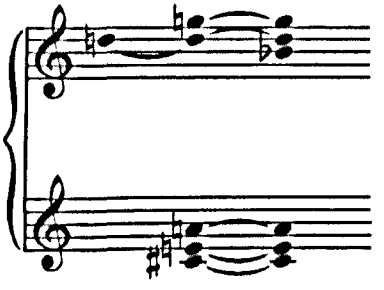


This is the moment in the song where Gretchen, obsessed by her love for Faust, ceases spinning as her mania reaches its height, the pause chord representing the stopping of the wheel whilst the combination of the dissonance, the high tessitura and the loud dynamic reveal her state of mind, the misfortune of 'his kiss' and her ultimate fate. I wanted to treat this quotation in a manner analogous to the treatment of *found objects* in visual art, that is, I wanted to use it intact, recognisable as itself but set amongst and against my own

musical material (as opposed to being used as the basis for new material in a varied or heavily disguised form). As the piece was to be for piano trio, I felt that it should be in three movements, although to accord with the conceptual link to visual art practice, I called it a 'triptych'. I imagined the quotation as a discovered relic from the past and the triptych as three musical tableaux presenting it in slightly different states or stages: unadorned and revered; ill-used, lost and buried; rediscovered but changed and now part of a different world.

The first movement, 'Hymn', begins with the quotation stated loudly in the piano. It is more or less as it appears in Schubert's song, except that the vocal line is integrated into the piano part and the D-natural^{5} sustained into the chord to produce a dissonant minor 9th with the lower C-sharp^{4}, whilst the A-natural^{4} does not rise to the B-flat^{4} that follows it but is held against it to produce a dissonant minor 2nd clash; the lower G-natural^{4} is also omitted to avoid a vertical octave. The resulting harmony is effectively a conflation of a first inversion A major triad with a second inversion g minor triad, a dissonance that I always seem to have 'heard' when listening to the original song:

Ex.36:

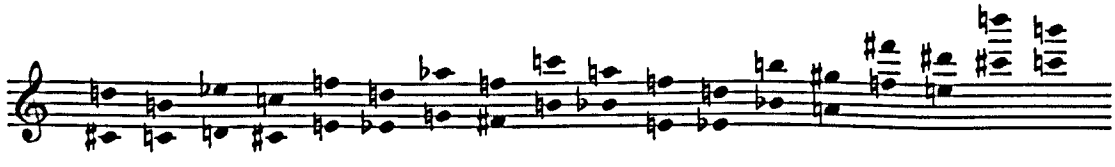


The three successive pitch-events that create the final harmony in this quotation (a D-natural^{5}, a C-sharp^{4}-E-natural^{4}- A-natural^{4}-G-natural^{5} chord and a B-flat^{4}) are each heard as a crochet tied to a quaver,

meaning the durational value of the whole gesture is nine quavers in length. This is the same notated rhythmic value as in the song, although the length of this moment in the original is really indefinite due to the pause on the chord. The quotation is heard three times at the beginning of the movement with the first statement followed by a quaver rest, a durational gap that increases by a crochet in each of the next two statements.

In bar 4, the violin and cello enter with their pitch-material; this is based on a sequence of eighteen pitch-events that combines features of the sequences used in *Three Studies for Movements from an Unwritten Passion* and *Heavy Toccata*. Like the former piece, the pitch-idea is dyadic, but like the latter piece, the lower part falls and rises instead of being repeated or sustained; like in both pieces, the sequence in this work employs the principles of intervallic expansion and canonic imitation. The first pitch-event is a C-sharp^{4}-D-natural^{5} dyad that falls to a C-natural^{4}-B-natural^{4} dyad in the second pitch-event. In the third pitch-event, the lower part rises by a major 2nd whilst the upper part rises by a major 3rd (enharmonically respelled). This pattern then proceeds with the lower and upper parts falling by a minor 2nd and a minor 3rd respectively between odd-numbered and even-numbered events whilst the rising intervals between even-numbered and odd-numbered events increase in size by a semitone each time. This is the case until pitch-event ten where the lower and upper parts, instead of rising by a tritone and a minor 6th respectively to reach event eleven, fall by a tritone and a major third; this enables the idea to then resume its rising contour from pitch-events twelve to eighteen:

Ex.37:



This allows the pitch-idea to remain comfortably within the upper registers of the violin and cello, these instruments taking the higher and lower parts respectively. The idea is revealed incrementally and recursively during the course of the piece, the sequence moving backwards and beginning again each time a new pitch-event is reached (1, 1, 2, 1, 2, 3, 2, 1 etc.). The durational scheme used to present the pitch-idea is the same recursive pattern used in *Heavy Toccata*, in which a durational space of four crochet beats is progressively filled with more rhythmic events but with the pattern moving backwards and starting again each time a shorter note-value occurs:

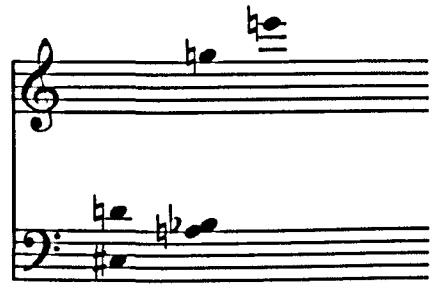
Ex.38:

As in the harpsichord piece, the pitch-idea and durational scheme in this movement unfold at different rates, their first events not necessarily coinciding. However, both patterns are disturbed by a specific alteration: every time the first pitch-event is sounded, it is held for the remaining duration of the bar in which it is heard, irrespective of the rhythmic value on which it falls. It is then sustained for a further four crochet beats as the Schubert quotation is heard in the piano (the C-sharp[4]-D-natural[5] dyad being present in the quotation's harmony). The final quaver of the harmony then dovetails with the resumption of the pitch-idea in the strings, the resonance being further prolonged by the piano's sustaining pedal. The fact that the quotation is only sounded when the pitch-idea arrives back on its first event means that its appearances get further and further apart, a refrain occurring between ever widening durational intervals, seeming to intrude on the

consistently quiet, evenly-articulated music in the strings. This pattern of alternation remains until the final and only playing of the complete pitch-idea from bar 102. When the pattern reaches the end of its final recursion in bar 111, the music suddenly breaks off on pitch-event one, followed by two crochets rest. The final quotation is then altered so that the whole harmony occurs on its second rhythmic event whilst the third rhythmic event presents a new, six-note chord made up of pitches not present in the quotation harmony, but semitonally adjacent to them (a conflation of a second inversion f minor chord and a root position B major chord). This is a cadential gesture, the insistently repeated Schubert quotation seeming to suddenly disappear into the pitches surrounding it.

Like the first movement, the second movement, 'Dirge', also begins with a statement of the quotation, although it is now slightly altered: the dissonant minor 9th is heard as a C-sharp^{3}-D-natural^{4} dyad, the minor 2nd as an A-natural^{3}-B-flat^{3} dyad and the 'missing' pitches from the harmony as a rising G-natural^{5}-E-natural^{6} figure against the A-natural^{3}-B-flat^{3} dyad:

Ex.39:



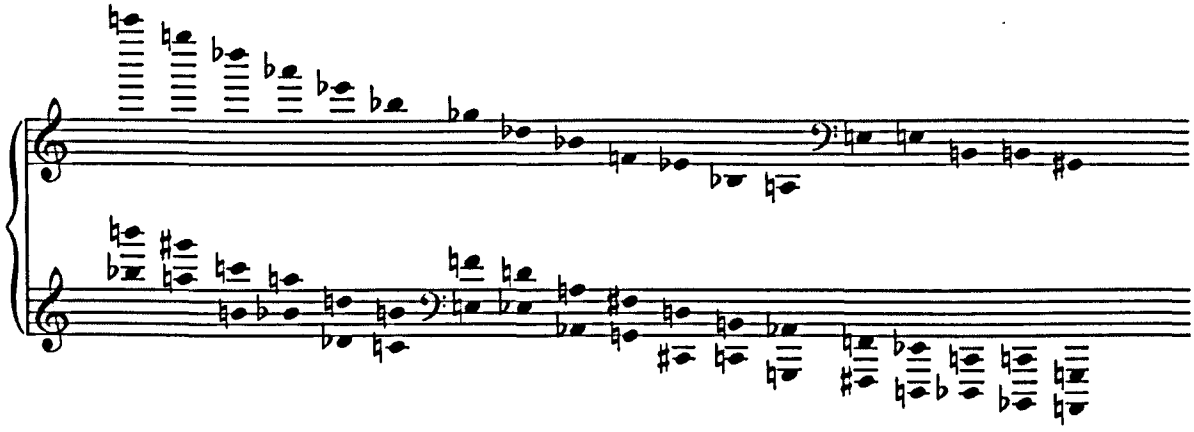
This altered quotation is heard in the strings, the cello taking the lower part in double stops whilst the violin plays the upper figure using natural harmonics. As in the first movement, this version of the

quotation has a total duration of nine quavers, the first event lasting for three quavers and the second event also for three quavers with the upper figure articulated as two events, a quaver and a semiquaver in length; the first event is then repeated. Although distorted, this gesture is still recognisable as the quotation and it occurs as a refrain, as it did in 'Hymn'. 'Dirge' starts with a disembodied sounding of just the upper figure on its own before the altered quotation is stated in full in bar 2; it is loud and aggressively articulated at first, becomes progressively quieter before being played *pizzicato* in its penultimate appearance, before finally being percussed with the wood of the bow in a reduced, skeletal manifestation (with the upper part taken down an octave each time in its last two appearances).

As the strings have the quotation material in this movement, the contrasting pitch-material is heard in the piano. This is based on a version of the eighteen-event pitch-idea used in the first movement although this time an extra voice is added, making eighteen three-pitch harmonies. The sequence begins on a B-flat^{5}-B-natural^{6}-C-natural^{8} triad followed by an A-natural^{5}-G-sharp^{6}-G-natural^{7} triad, the lowest pitch in the first pitch-event falling by a minor 2nd, the middle pitch by a minor 3rd and the highest pitch by a perfect 4th. The third pitch-event is created by the lower voice falling by a minor 7th, the middle voice falling by a minor 6th (enharmonically respelled) and the upper voice falling by a tritone creating a B-natural^{4}-C-natural^{6}-D-flat^{7} harmony. The pattern then progresses with the voices falling by a minor 2nd, a minor 3rd and a perfect 4th (lower, middle and higher voices respectively) between odd-numbered and even-numbered pitch-events, whilst the falling interval in each voice between even-numbered and odd-numbered pitch-events decreases by a semitone every time. This is the case until pitch-event seventeen where, to avoid a direct octave and to keep the characteristic widely-spaced voicing,

the upper and middle parts swap around so that the minor 3rd fall between events seventeen and eighteen occurs in the top voice whilst the perfect fourth occurs in the middle voice. This gives the pitch-idea a contour that descends from the highest to the lowest note on the piano keyboard:

Ex.40:

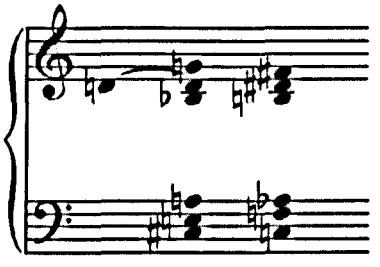


This pitch-idea is presented incrementally and recursively (1, 1, 2, 1, 2, 3, 2, 1 etc.), with every pitch-event being heard as a crochet beat. The idea is broken up into units, each unit starting at the beginning of the pitch-idea, introducing a new pitch-event then moving backwards to the first pitch-event (1/1, 2, 1/1, 2, 3, 2, 1/ etc.). These units alternate with the appearances of the distorted quotation, the first chord of each piano gesture eliding with the final quaver of the string material and the final piano chord of each gesture sustaining into the string material that follows. The pattern of revelation means that the piano gestures are initially shorter in duration than the quotation, although as the former get incrementally longer whilst the latter stay the same length, the piano music eventually overwhelms the increasingly less frequent string refrains, an effect underlined by the consistently loud piano dynamic compared to the progressively quieter volume of the string music. The movement ends with the

percussed string quotation buried in the only complete playing of the descending pitch-idea.

The material at the beginning of the finale, 'Cadence' is based on the version of the quotation heard at the close of the first movement in which the A major/g minor harmony occurs as the second of the three events followed by a six-note chord (an f minor/B major harmony) containing pitches semitonally adjacent to the first six-note chord, although it is an octave lower than in its appearance in the first movement:

Ex.41:



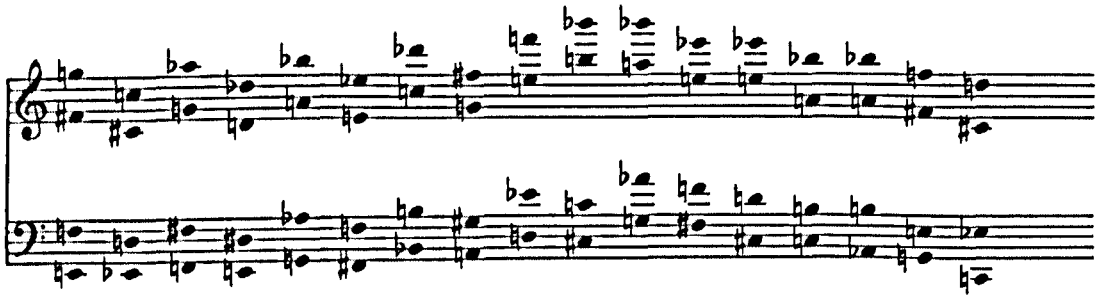
The falling contour of this gesture has a cadential feel (it is somewhat similar to the recurring idea in my earlier piano piece *Refrain*). It is heard in full in the second bar of the finale, although it is preceded by an incomplete version using double stops in the strings, recalling the distorted quotation in the second movement. This pattern of alternation is then repeated so that the figure is heard four times at the beginning of the movement. This gesture initially lasts for nine quavers, is divided into three equal units (as with the other quotation gestures) and is followed by a quaver rest. However, every event in the gesture (including the rest) subsequently increases in length by a quaver, so that, by the fourth appearance, it is made up of three dotted crochets followed by a minim rest. This passage of material returns in bar 44 and is repeated an octave higher before a short coda in bars 50-52. In this

closing phrase, a new version of the quotation/cadential gesture is presented containing three events (the first two lasting for four crochets beats and the last one for four crochet beats and a quaver). The first event is the six-note chordal sonority from the quotation (A major/g minor) heard in the piano, whilst the second is this same sonority with four pitches from the final 'cadence' chord added (C-natural^{4}-F-natural^{4} and B-natural^{4}-F-sharp^{5}); the final event adds the missing notes from the f minor/B major harmony (A-flat^{4} and D-sharp^{5}, enharmonically respelled) in the piano, creating a final twelve-note conflation of the quotation/cadential harmonies.

The phrases from bar 1 to bar 6 and from bar 44 to bar 52 represent the outer bracketing sections of an overall ternary structure, the middle section of which is based on material related to the eighteen-event pitch-ideas used in the first two movements. The version of the idea in the finale employs seventeen four-pitch vertical events beginning with an E-natural^{2}-F-natural^{3}-F-sharp^{4}-G-natural^{5} harmony. This is effectively a transposition of the pitch-idea used in *Heavy Toccata*, and it behaves in the same way, the voices, from lowest to highest, falling by a minor 2nd, a minor 3rd, a perfect 4th and a perfect 5th respectively to create an E-flat^{2}-D-natural^{3}-C-sharp^{4}-C-natural^{5} harmony in the second pitch-event. The third pitch-event is created by the voices (lowest to highest) moving up by a major 2nd, a major 3rd, a tritone and a minor 6th to form an F-natural^{2}-F-sharp^{3}-G-natural^{4}-A-flat^{5} harmony. This pattern continues in the same manner as the harpsichord piece, the voices falling by a minor 2nd, a minor 3rd, a perfect 4th and a perfect 5th between odd-numbered and even-numbered events whilst the intervallic distance between the even-numbered and odd-numbered events increases in size by a semitone each time.

As in *Response* and *Heavy Toccata*, the established pattern remains the same until pitch-event nine, when the top two voices rise by a perfect 5th and a perfect 4th to pitch-event ten (instead of falling by a perfect 4th and a perfect 5th as they have up until that point). Then in pitch-event eleven, the top voice remains on the same pitch as in event ten instead of rising by an octave. To avoid any other direct octaves and to maintain the widely-spaced harmonies, the subsequent events are subject to alterations, the top two voices swapping parts between events twelve and thirteen and the inner voices swapping parts between events fourteen and fifteen. According to this pattern, the lower voices should swap parts between events sixteen and seventeen, whilst the upper voices should swap again at the same point, resulting in the same harmony occurring in both events (see the example relating to *Heavy Toccata* – Ex.33). In this instance, I decided to remove this repeated event, so that the pitch-idea in 'Cadence' only contains seventeen events in its asymmetrical arch-contour; the pitch-level of this version of the idea was chosen to utilise the lowest open string on the cello in the final event:

Ex.42:



This material is presented incrementally and recursively, but in pairs of pitch-events, so that two new events are introduced before the sequence moves backwards (1, 2; 1, 2, 3, 4, 3, 2; 1, 2, 3, 4, 5, 6, 4, 3, 2;

etc.); this pattern continues until the final complete revelation of the seventeen-event pitch-idea in which the single new event is, of course, the final event. Each pitch-event lasts for a crochet and is heard in both the strings and the piano; apart from the final two bars, this represents the only point in the whole work where all of the instruments play together. The dynamics are consistently loud and every chord is accented, the cello playing the lower two parts as pizzicato chords whilst the violin breaks the upper parts into a sequence of alternating quavers; the piano presents the material as a series of four-note chords.

The strong differentiation in texture, pitch-material, durational schemes and dynamics between the two outer sections and the inner section in 'Cadence' means that they could be described as 'constituent events', revealing the overall ternary-form 'story' of the movement (a conventional 'masterplot' musical structure). Similarly, the presentation of the quotation material and the pitch-idea in 'Hymn' and 'Dirge' means that these elements could function as 'constituent events' revealing the 'story' in both movements as versions of a verse-refrain 'masterplot'. Yet all three movements could also be understood to contain teleological 'constituent events' as they each, in different ways, reveal their pitch-material incrementally, the first movement in a steadily rising contour, the second in a descending contour and the third movement in an asymmetrical arch. There is also a teleological aspect to the use of dynamics and articulation in the string parts during the second movement (they decrease in intensity and clarity respectively), whilst the finale is framed by passages employing an expanding durational scheme and finishes with a gesture of culmination in which the 'cadential' chord and the harmony from the quotation are brought together and combined. Similarly, the 'cadential' gesture in the final movement is first heard in the opening

movement (bars 112-113), where it provides a teleological end point through confounding the sense of expectation generated by the recurring Schubert quotation (the 'cadential' chord contains six pitches as yet unheard in the piano part, whilst the whole gesture collapses and distorts the quotation for the first time).

Each movement also engages with an extra-musical dimension through its individual title. Although they might seem somewhat oblique, they all refer to musical concepts and, in the context of the music, they can be understood as part of an interpretative feedback loop, functioning in each musical/extra-musical 'narrative discourse' ('Hymn' indicating the quiet, background pitch-material in the first movement, 'Dirge' the dissonant repetitive refrain in the second and 'Cadence' the chordal material in the opening and closing passages of the finale). The finale's title can also be understood as referring to the closing function of the movement in terms of the work as a whole and all three titles are linked through their relationship to the overall title, *Schubert's Kiss*. This title (which refers to the musical quotation used in the piece), the individual movement titles and the programme note might function together as 'constituent events' in connection with the music to 'reveal' a musical/extra-musical teleological 'story' in which a relic from the past is revered (the 'Hymn'-like string music suggesting ceremonial reverence), mistreated (reformed as a dissonant 'Dirge'), buried and lost (in the second movement's cascade of loud, descending pitch-events), then rediscovered, albeit altered by its experience and with its status changed (compressed and presented with new material in the finale's 'Cadence', the phrases in which this gesture is heard providing a frame to the now dominant contrasting pitch-material). Even without the programme note (in which case the extra-musical aspect could be considered constructional, something used to help create the piece but not

revealed through it), the overall title might serve to highlight the quotation and thus draw attention to the transformative journey it takes over the course of the three movements.

However, there are aspects of the musical 'narrative discourse' that can be understood to function as 'constituent events' in the revelation of various kinds of teleology in the overall musical 'story'. For example, there is a teleological aspect at work in the tempo, which gets progressively slower in each movement, the basic tempo of seventy-two beats per minute (taken from Schubert's *Gretchen am Spinnrade*) decreasing proportionally to fifty-four beats then forty-five. There is also a sense of teleology in relation to the pitch-event sequences in that there is a vertical accumulation of layers between successive movements (as well as the horizontal revelation within each movement), the pitch-idea being presented first in two parts, then in three, before finishing with a four-part texture. At the same time, the teleology of this pitch-idea can be perceived, to some extent, as being separate from (or running in parallel with) the teleological treatment of the Schubert quotation. Even if the musical/extra-musical journey taken by the quotation is not fully apprehended, there is still a general sense of teleology created through its musical transformations in that it is clearly stated in the first movement, distorted in the second then restored to something like its original condition in the finale. The fact that this gesture recurs throughout all three movements means that it could also function as a refrain-like 'constituent event' in the structure as a whole, whilst the introduction of the 'cadential' gesture in the final bar of the opening movement creates another 'constituent event' in the 'story' of the piece, its return in the final movement indicating a potential structural circularity. Yet this gesture also serves to reveal an overall teleology as the combination of its two main elements (the quotation harmony and the 'cadence' chord) creates

the only twelve-note harmony in the piece, acting as a point of culmination not just for the finale, but for the entire work.

The Parable of the Blind (Processional Chorale for Four Quartets after Pieter Bruegel the Elder) for Saxophone Quartet, Percussion Quartet, Vocal Quartet and String Quartet (2011)

The final work in my portfolio is one that has an important extra-musical dimension as it refers to a painting and sets a pre-existing text. As such, it could have been discussed with the other pieces that engage with extra-musical concepts. However, due to its presentation of two particular kinds of musical *topos* (the chorale and imitation), it is also engaged in exploring meta-musical concepts; it is also my most recently completed piece and its musical material is most strongly related to those pieces that precede it chronologically (*Three Studies for Movements from an Unwritten Passion, Response, Heavy Toccata* and *Schubert's Kiss*). Due to these factors, I feel that this piece represents a point of culmination in which different elements of my work are brought together and, as a consequence, it seems to make sense to discuss it last.

The title of the piece refers to the painting *The Parable of the Blind*, a work from 1568 by the Flemish artist Pieter Bruegel the Elder. This is itself a response to a biblical text known as 'The Parable of the Blind leading the Blind' which Christ is reported to have used as a metaphor to illustrate the consequences of spiritual blindness amongst ruling elites; it is the words of this parable that I have set to music. Although it appears twice in the New Testament, I decided to use the version from the book of Luke in the King James translation: 'Can the blind lead the blind? Shall they not both fall into the ditch?' I was drawn to respond to the Breugel painting and, subsequently, the biblical text, as I wanted to write a piece for the Belgian ensemble *Blindman* (a musical collective comprising saxophone, percussion, vocal and string quartets) as a submission for a competition. I had already been

interested by the idea of writing some music based on the work of Breugel and the nationality of the ensemble suggested that this was a good context in which to explore this idea, the name of the group prompting the choice of painting:

Fig.3:

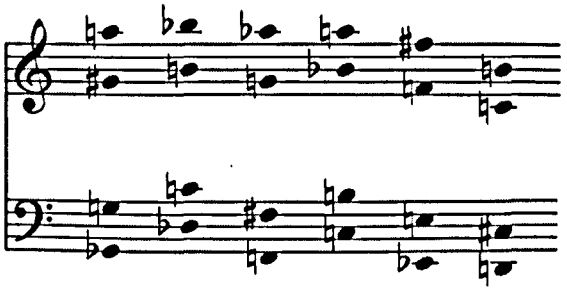
The Parable of the Blind (1568) by Pieter Bruegel the Elder (c.1525-69)

I wanted to respond to the processional nature of Bruegel's picture, the descending contour of the line of figures, and to the religious subject-matter. To this end, I decided to base the work on a chorale comprised of six chords (representing the six figures in the painting) with each chord containing four pitches (so it could be played by all of the quartets in the ensemble). The sequence of pitch-events in the chorale begins on a G-flat^{2}-G-natural^{3}-G-sharp^{4}-A-natural^{5} harmony; for the second pitch-event, the lowest pitch then rises by a perfect 5th with the three upper pitches, from lower to higher, rising by a perfect 4th, a minor 3rd and a minor 2nd respectively to create a D-flat^{3}-C-natural^{4}-B-natural^{4}-B-flat^{5} harmony. The lowest pitch then descends a minor 6th with the three upper pitches (from lower to higher)

descending by a tritone, a major 3rd and a major 2nd for the third pitch-event: an F-natural[2]-F-sharp[3]-G-natural[4]-A-flat[5] harmony. The pattern then proceeds in this manner with the horizontal intervals between the pitches in odd-numbered and even-numbered events rising (from the lowest pitch to the highest) by a perfect 5th, a perfect 4th, a minor 3rd and a minor 2nd whilst the descending horizontal intervals between an even-numbered and an odd-numbered event increase in size by a semitone each time. However, this pattern only continues for pitch-events four and five of the six-event sequence as, between events five and six, the intervallic distance and direction is altered so that the lowest pitch falls by a minor 2nd whilst the three upper pitches, from lower to higher, fall by a minor 3rd, a perfect 4th and a perfect 5th respectively. This sudden inversion of the anticipated intervallic pattern creates an unexpected drop, the contour of the resulting six-event sequence echoing the steady descent then sudden collapse of the figures in Bruegel's painting:

Ex.43:

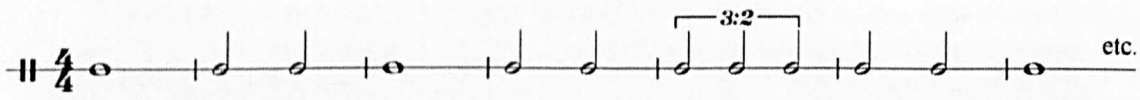
Chorale:



This chorale was written at a pitch-level that could accommodate the singers' vocal ranges; it is presented incrementally and recursively, the sequence moving backwards and beginning again each time a new pitch-event is reached (1, 1, 2, 1, 2, 3, 2, 1 etc.); it also employs the

same recursive durational scheme (in which a durational space of four crochet beats is progressively filled with more rhythmic events, the scheme moving backwards and starting again each time a shorter note-value occurs) heard in *Heavy Toccata* and *Schubert's Kiss*:

Ex.44:



Yet the complete chorale is not heard in its entirety until the end of the piece, when it appears in the vocal quartet from bar 289 to 301. Before this point, it is itself revealed incrementally, beginning with its first bar alone at bar 153 and adding a further bar upon each subsequent appearance before the complete presentation from bar 289.

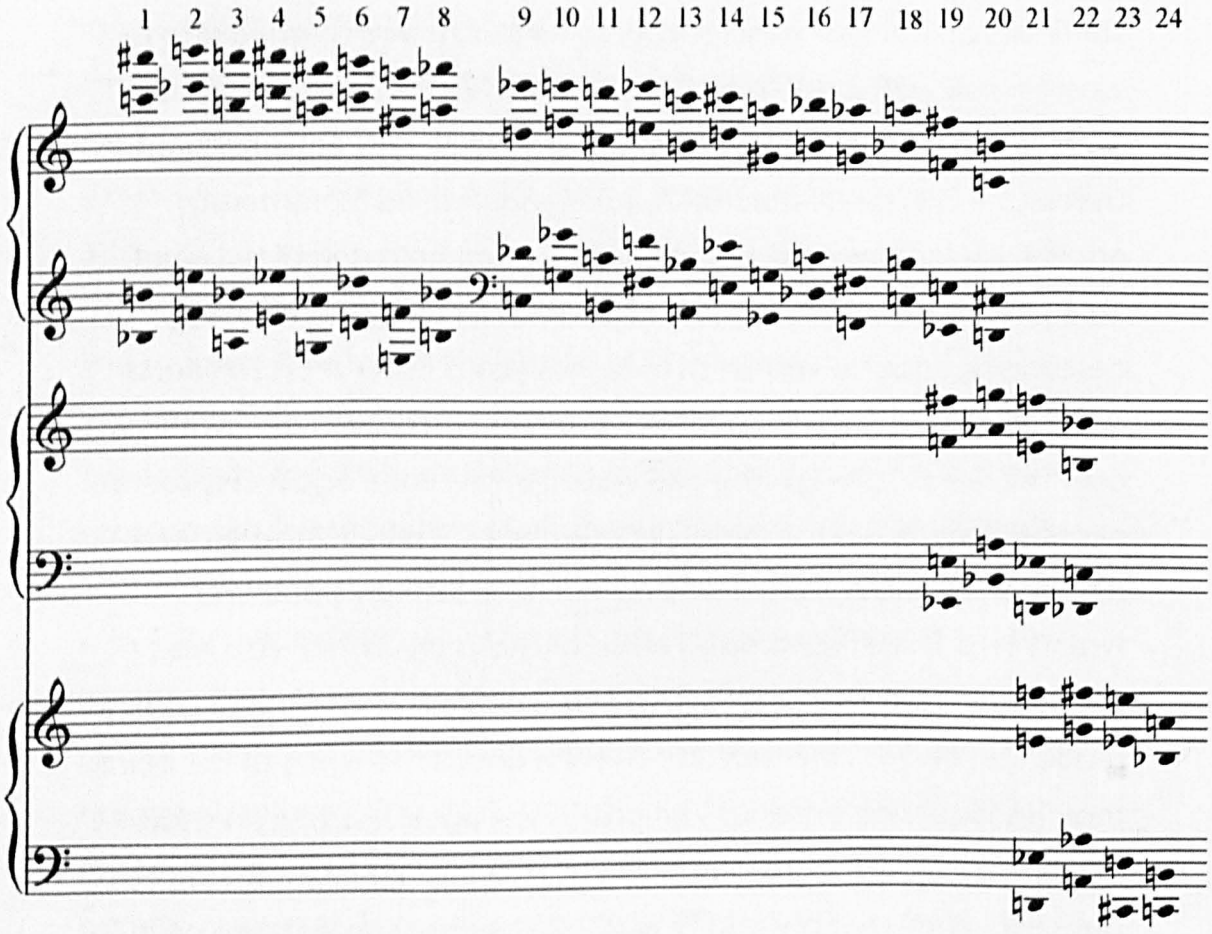
The material in between the entries of the chorale is played by the saxophone quartet (doubled by the marimba), and the string quartet (doubled by the glockenspiel and vibraphone). This material is based on an extended sequence of pitch-events that links to the chorale sequence. This larger sequence begins on a B-flat^{3}-B-natural^{4}-C-natural^{6}-C-sharp^{7} harmony; the pitches (from lowest to highest) then rise by a perfect 5th, a perfect 4th, a minor 3rd and a minor 2nd to arrive on the second pitch-event (an F-natural^{4}-E-natural^{5}-E-flat^{6}-D-natural^{7} harmony) before falling by a minor 6th, a tritone, a major 3rd and a major 2nd for the third pitch-event (an A-natural^{3}-B-flat^{4}-B-natural^{5}-C-natural^{7} harmony). The sequence proceeds according to the same intervallic pattern used between the first five pitch-events in the chorale (the rising intervals between odd-numbered and even-numbered pitch-events remaining the same whilst the falling intervals between even-numbered and odd-numbered events increase in size

by a semitone each time). This is the case until pitch-event nine (a C-natural^{3}-D-flat^{4}-D-natural^{5}-E-flat^{6} harmony), at which point the intervallic pattern that has been established between the pitch-events in the sequence starts again. This time it continues until pitch-event fifteen, a G-flat^{2}-G-natural^{3}-G-sharp^{4}-A-natural^{5} harmony that marks the beginning of the chorale illustrated above (Ex.43).

The intervallic patterning of the chorale continues as described above until the inversion of the pattern between its last two pitch-events (events nineteen and twenty in the overall sequence); at this point, the sequence expands vertically as another layer of pitch-events continues according to the previously established intervallic pattern, rising (from lowest pitch to highest) by a perfect 5th, a perfect 4th, a minor 3rd and a minor 2nd between pitch-events nineteen and twenty. The result is a B-flat^{2}-A-natural^{3}-A-flat^{4}-G-natural^{5} harmony heard against the last harmony of the chorale, creating a combined eight-note pitch-event. This new layer of pitch-events then continues by descending (from lowest pitch to highest) by a minor 6th, a tritone, a major 3rd and a major 2nd between pitch-events twenty and twenty-one. This seems to begin the intervallic pattern once again only for the pitches (from lowest to highest) to then fall by a minor 2nd, a minor 3rd, a perfect 4th and a perfect 5th between events twenty-one and twenty-two. This is the same inversion of the intervals that occurred between the last two pitch-events in the chorale (the top layer of the sequence, events nineteen and twenty) and, similarly, it is at this point that the sequence expands vertically once again. Here, a third layer of pitch-events appears, continuing the established intervallic pattern between events twenty and twenty-one by rising (from lowest pitch to highest) a perfect 5th, a perfect 4th, a minor 3rd and a minor 2nd. This results in an A-natural^{2}-A-flat^{3}-G-natural^{4}-F-sharp^{5} harmony creating another eight-note harmony on pitch-event twenty-two as it is

combined with the harmony in the layer above. The third layer then continues the intervallic pattern by descending (from lowest pitch to highest) a minor 6th, a tritone, a major 3rd and a major 2nd between pitch-events twenty-two and twenty-three. However, the intervals are again inverted between the penultimate and final events (falling – from lowest pitch to highest – by a minor 2nd, a minor 3rd, a perfect 4th and a perfect 5th), so that the sequence finishes on a C-natural[2]-B-natural[2]-B-flat[3]-A-natural[4] harmony:

Ex.45:

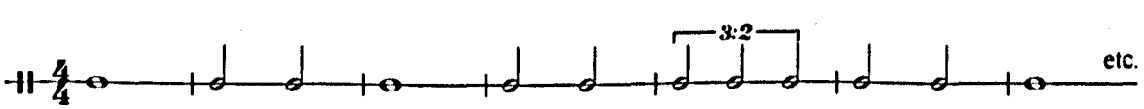


Thus the overall sequence of twenty-four pitch-events follows a descending contour that begins regularly but that falls into seeming

confusion at the end. However, it will be observed that the final pitch-events in each layer of the sequence share a canonic relationship, the last two chords in the middle layer imitating those in the upper layer but a semitone lower, whilst the last three chords in the bottom layer imitate those in the layer above, also a semitone lower. This relates to the picture and the parable, suggesting the idea of the blind leading the blind into the ditch. The fact that the sequence of pitch-events can be broken down into six groups of four relates both to the performing forces and the painting, referring to the use of four quartets and reflecting the descending line of six figures in the painting *The Parable of the Blind* (the events proceeding regularly until the final two of the six groups of four events break the pattern, collapsing to the lowest pitch-level used in the piece).

The sequence of pitch-events as presented in the piece begins in bar 1 in the string quartet (doubled by glockenspiel and vibraphone); it is revealed incrementally and recursively (1, 1, 2, 1, 2, 3, 2, 1 etc.) in crochets until pitch-event nine is reached in bar 14, at which point the saxophones (doubled by marimba) enter. Between bars 14 and 153, the saxophones present pitch-events nine to fifteen, also incrementally and recursively. However, this presentation employs the same recursive durational scheme that will be used for the chorale in the voices from bar 153:

Ex.46:



As with the chorale in the vocal quartet, the saxophones and marimba present their material in portions, beginning with a single bar

and adding a further bar upon each subsequent appearance before the only complete presentation of pitch-events nine to fifteen using the recursive durational pattern is heard between bars 140 and 153. Between each entry of the saxophone and marimba material, the strings and metallic percussion play a portion of the pitch-sequence in crochets. This material always begins with the last pitch-event of the previous saxophone entry, moves backwards through the sequence to pitch-event one then forwards again to pitch-event nine, at which point the next saxophone entry occurs; in this way, the last pitch-event and the first pitch-event of the alternating portions of the sequence always dovetail. This remains the case until the entrance of the vocal quartet in bar 153, which, from this point on, presents its material (doubled by the strings) in alternation with the saxophones and marimba, and the string quartet, glockenspiel and vibraphone.

In bar 154, the saxophones and marimba play pitch-events fifteen to nine in crochets, dovetailing in bar 155 with the string quartet and metallic percussion playing pitch-events nine to one, also in crochets. Upon reaching pitch-event one in bar 157, the latter group of instruments move forwards through the sequence as before until they reach pitch-event nine in bar 159, at which point the saxophones and marimba re-enter with pitch-events nine to fifteen. As pitch-event fifteen is heard in bar 160, the vocal quartet re-enter with the next portion of their material. The music then proceeds with this pattern of alternation, the portions of vocal material getting incrementally longer whilst the saxophones and marimba always dovetail with the last and first pitch-events of the vocal entries and the string quartet, glockenspiel and vibraphone entries. This pattern continues until bars 298-300 when all four quartets play pitch-events nineteen to fifteen then back to nineteen; this is the only point at which the different instrumental groups play in unison. In bar 301, the vocal quartet finish

with event twenty from the top layer of the pitch-event sequence (the last pitch-event from the chorale); in bar 302, the saxophones, glockenspiel and vibraphone take the middle layer of the sequence in pitch-events twenty to twenty-two whilst in the final bar, the strings and marimba take the bottom layer of the sequence for pitch-events twenty-two to twenty-four.

The sudden breaking of the established intervallic pattern at the end of the sequence of pitch-events in the final two bars of the piece coincides with the breaking of the established incremental and recursive patterns of pitch-event presentation, the disappearance of the durational scheme and the end of the alternating, imitative instrumental entries; in other words, all of the main elements of the music move together to give the impression of a sudden and unexpected collapse of a previously established order. This impression is related to Bruegel's painting *The Parable of the Blind* in that it is meant to suggest a line of figures that is at first orderly but that terminates with two of them tumbling into a ditch. In this sense, the extra-musical aspect represented by the painting is intrinsic to the shaping of the compositional material and its disposition in the piece. The religious subject-matter of the painting influenced the decision to write a chorale and the use of homophonic textures throughout the piece as well as the use of imitation (they are recognisable musical *topoi* with connotations of the sacred). Of course, the choice of text used in the work is directly related to Bruegel's picture as it is this biblical parable that the artist has depicted. There is an element of word-painting used in the generally declamatory text-setting as the descending contour of the pitch-event sequence is heard as a final, long melisma on the word 'ditch'; similarly, the starkness of Bruegel's pictorial imagery also influenced the choice of dynamics and

articulation, the hard, violent nature of the painting expressed in music that is, essentially, loud, aggressive and relentless.

As the picture *The Parable of the Blind* was integral to the composition of the music, I have suggested in the prefatory notes to the score that a copy of it could be displayed (via some kind of projection) behind or above the players during a performance; if this is not possible, then I would hope that it might be reproduced in the programme. In either case, the programme note should help to elucidate the nature of the relationship between the painting and the piece so that, when presented together, the links between the two will be clear. In narrative terms, the combination of Bruegel's imagery and my musical response to it could provide the 'constituent events' in the musical/extra-musical 'narrative discourse' revealing the 'story' of the relationship between the picture and the musical response to it. However, although the choices made in the creation of the musical material are directly linked to the painting, there is also a sense in which the piece might be understood as a musical 'narrative discourse' that reveals a musical 'story'. For instance, the alternation between the chorale entries in the voices and the crochet material in the other instrumental parts could function as 'constituent events' revealing a kind of 'masterplot' verse-refrain structure, something that could also apply to the earlier alternations between the music played by the saxophones with marimba and that played by the string quartet with metallic percussion (bars 14-153).

That the music played by the saxophones with marimba from bar 14 to bar 153 clearly prefigures the music heard after the entrance of the voices (bars 153-302) suggests that the uses of instrumental colour in the piece could be regarded as 'constituent events'. This could be understood to reveal a bipartite structural 'story' in which the

instrumental section (bars 1-152) acts as an antecedent that anticipates (and is fulfilled by) the addition of the voices in the consequent (bars 153-302). There is also, to some extent, an underlying teleological musical 'story' in which the 'constituent events' are the incremental and recursive revelations of the pitch-event sequence and durational patterns, although these aspects are also related to the implied teleology in Bruegel's picture (the figures are walking and end up falling into a ditch). Yet even without knowledge of the painting, the fact that the piece sets the biblical text that inspired Bruegel's work means that there is an intrinsic extra-musical element present. Although the text is not actually heard until halfway through the piece, its association with the previously heard instrumental music as well as its immediate musical setting will allow it to function as a 'constituent event' in the retroactive reconstruction of the musical/extra-musical 'story' through the feedback loop of the musical/extra-musical 'narrative discourse', the words elucidating the nature of the musical material which is itself illustrating the words.

Appendix I:

Chronological list of performance information for pieces included on enclosed CDs of live recordings

Refrain for Piano (2006) performed by James Wishart on 18th October 2006 in the University Theatre, Eleanor Rathbone Building, University of Liverpool.

Holmewood Study (Refrain 2) for Cello and Piano (2006-07) performed by Jonathan Aasgaard and Ian Buckle on 14th March 2007 in the University Theatre, Eleanor Rathbone Building, University of Liverpool.

Equivalents for the Megaliths 1b: Swinside Study (Sunkenkirk) for Symphony Orchestra (2008) performed by the BBC Philharmonic Orchestra on 28th October 2008 in Studio 7 Concert Hall.

Equivalents for the Megaliths III: Duloe Quartz for String Quartet (2009) performed by the Elysian String Quartet on 29th April 2009 in the Victoria Gallery and Museum, Leggate Theatre, University of Liverpool.

***Manifestations* (revised version)** for Chamber Orchestra (2009) performed by Ensemble 10/10 on 1st November 2009 in the Cornerstone Theatre, Hope at Everton, Liverpool.

Wayland's Lament (Long Barrow Ground 2) for Alto Flute, Percussion and Piano (2009-10) performed by Ensemble Spazio Musica on 12th February 2010 in the Sala del '700, University of Cagliari.

West Kennet Fragment (Long Barrow Ground 3) for Solo Guitar (2010) performed by Stefan Österjö on 17th March 2010 in the School of Music, University of Liverpool.

Lullaby for Wind Ensemble and Piano (2010) performed by the London New Wind Festival Ensemble in the Regent Hall, London on 19th November 2010.

Heavy Toccata for Solo Harpsichord (2011) performed by Jane Chapman on 30th March 2011 in the School of Music, University of Liverpool.

Appendix II:

Chronological list of pieces completed during PhD

Framed Obsessions for Alto Flute, Viola and Harp (2005)

Refrain for Piano (2006) †

Holmewood Study (Refrain 2) for Cello and Piano (2006-07) †

Broken Suite for Baroque Flute, Baroque Violin, Bass Viol and Harpsichord (2007)

Sycamore for Counter-tenor and Symphony Orchestra (2007) †

Manifestations for Chamber Orchestra (2007) †

Note for 3 sopranos (2008) †

Equivalents for the Megaliths 1a: Swinside Study (Sunkenkirk) for Chamber Ensemble (2008)

Equivalents for the Megaliths 1b: Swinside Study (Sunkenkirk) for Symphony Orchestra (2008) †

Equivalents for the Megaliths 1c: Swinside Study (Sunkenkirk) for Vibraphone, Piano, Violin and Cello (2008)

Equivalents for the Megaliths II: Tombeau/Explosion for Piano (2009) †

Equivalents for the Megaliths III: Duloe Quartz for String Quartet (2009) †

***Manifestations* (revised version)** for Chamber Orchestra (2009) †

Two Legends for Bass Solo and Piano (2009) †

FAN(fare) for Brass Ensemble (2009)

Long Barrow Ground 1 (Stoney Littleton Study) for Chamber Ensemble (2009)

Wayland's Lament (Long Barrow Ground 2) for Alto Flute, Percussion and Piano (2009-10) †

West Kennet Fragment (Long Barrow Ground 3) for Solo Guitar (2010) †

Equivalents for the Megaliths IV: Unquiet Noctume: The Whispering Knights for Wind Ensemble and Piano (2010) †

Antiphon for St Michael for Mixed Choir (2010)

Interlude Fragments (273") for Small Ensemble (2010) †

Lullaby for Wind Ensemble and Piano (2010) †

Rit. Concertino for Violin and Ensemble (2010)

Dual for Two Pianos (2010)

Three Studies for Movements from an Unwritten Passion for Solo Cello (2010) †

Response for Small Ensemble (2010) †

Heavy Toccata for Solo Harpsichord (2011)†

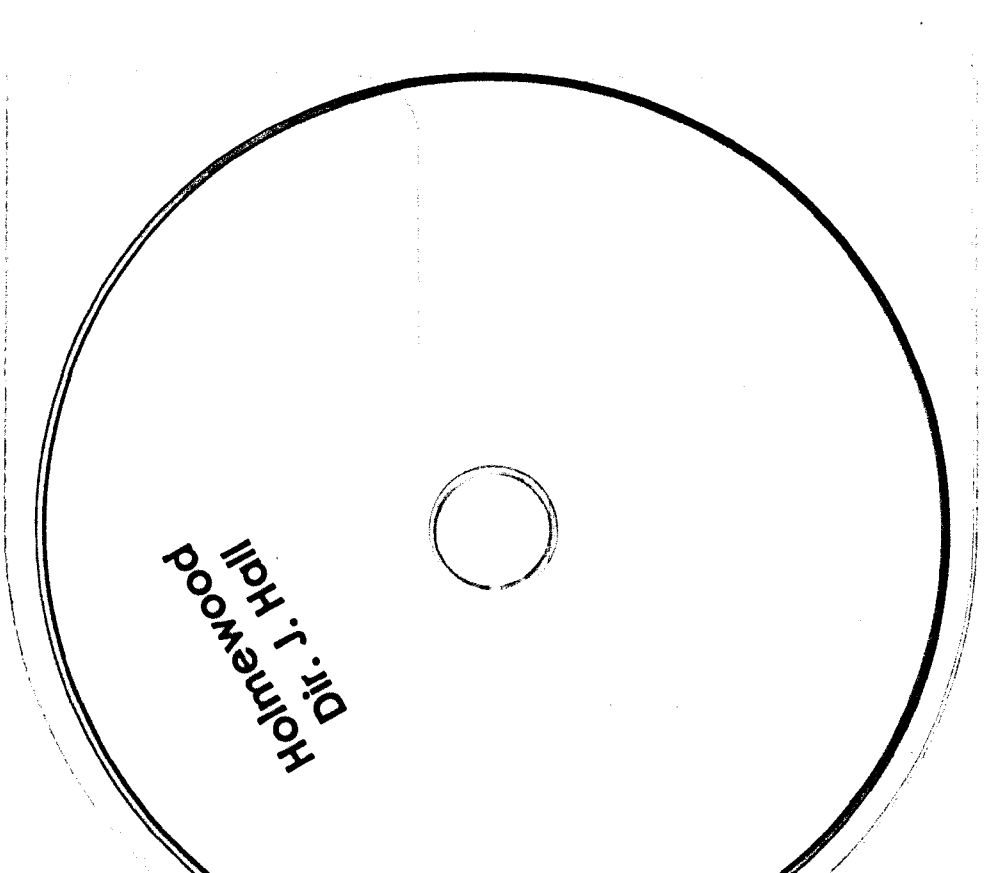
Triptych for Piano Trio: Schubert's Kiss for Piano, Violin and Violoncello (2011)†

The Parable of the Blind (Processional Chorale for Four Quartets after Pieter Bruegel the Elder) for Saxophone Quartet, Percussion Quartet, Vocal Quartet and String Quartet (2011)†

† Denotes pieces included for submission as part of the final portfolio of compositions.

Appendix III:

DVD copy of film *Holmewood* (Dir. Jonathan Hall, 2007)



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Broadcast Sources:

Interview with Harrison Birtwistle by Tom Service for *Music Matters* on BBC Radio 3 (First broadcast on Saturday, 19th March 2011)