...a settling stillness, weighted dust...
A portfolio of original compositions and commentary

A thesis submitted for the degree of Doctor of Philosophy

by

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Abstract

The compositions in this portfolio explore the technical and expressive applications of some sonic aspects of church bells and some theoretical aspects of English change ringing. In terms of compositional technique this research manifests as the exploration of decaying sonorities and decay-driven rhythms, overtone partials of the harmonic series, pitch and scordatura resources derived from the tuning analysis of specific bells, and the use of static and pulsating drones. These technical resources form the backbone of my harmonic and rhythmic language throughout this thesis and are seen to develop and undergo a process of reflective refinement across the portfolio. In addition, the works presented here explore my fascination with the use of improvisation and performer choice by means of aural response and interaction, the application of apotheosis endings and the practicalities, and artistically rewarding results, of self-transcription and arrangement. In general my music searches for a poignant blend of stasis and activity, of meditativeness and unpredictability, that I have termed ‘fragile intensity’. During the accompanying commentary the impact of these technical resources on the expressive content of my music is assessed and elucidated. An artistically fruitful tension between compositional intuition and intellectual self-analysis is noted. An overall trend of diminishing reliance on large-scale prefabricated compositional systems in favour of small-scale bespoke procedures is observed. Within the context of the author’s compositions, this trend, together with an acquired instinct for the most successful deployment and contexts for the previously described technical explorations, is highlighted as artistically healthy and a potential sign of compositional growth.
Acknowledgements

I am greatly indebted to the following musicians, ensembles and lovers of music for commissioning and/or performing and/or recording my work since the start of my PhD research: The Octandre Ensemble, Johan Löfving, Corentin Chassard, Fra Rustumji, Adrien Bernege, Bartosz Glowacki, Guillaume Mathias, the bellringers of Thornham Magna, Distractfold, the Manon Quartet, Improviso, Nikolai Varma, Irina Serotyuk, Michele Bianco, Simas Tankevičius, Konrad Levicki, Ugnė Petrauskaitė, Ignė Pikalavičiūtė, Anna Brigham, Mandhira de Saram, George Holloway and the Holloway Children’s Choir (Tianjin).

I would like to express my huge thanks to my supervisors Prof. Christopher Fox and Dr. John Croft for their guidance, enthusiasm and kindness.

My grateful thanks to the following organisations for their support of my work: Music at Thornham, Thornham Summer Festival, Composer+ Summer Academy, LSO Soundhub and BabelScores.

I would like to thank the following people for their friendship, help and inspirational impact on my musical life: Dr. George Holloway, Dr. Christian Mason, Johan Löfving, Dr. David Marquiss, Prof. Michael Zev Gordon, Prof. Michael Finnissy, Prof. Peter Emery, David Holdridge, Stephanie Pattenden, Cathy Ockwell.

Finally I would like to thank my wonderful wife Ruth and our families for their love and support.
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List of Scores (bound separately)

My lungs taste the air of Time Blown past falling sands... (2015) – piccolo, violin, cello, harp, piano

...to imprison the wind (2017) – piccolo, cello, guitar

Curved lines ‘gainst square glass (2015–16) – solo theorbo

Reflections on Blue (2016) – mixed ensemble of 9 instruments

...but their stillness showed plainly... (2017) – clarinet in B♭, violin, viola, cello

...but their stillness showed plainly... (2017) – string quartet

At the edge of his dreams... (2017) – mixed ensemble of 6 players and church bells

Like Trees in November (2016–18) – solo piano

Refracted Meditations III (2018) – solo guitar
...on plain air... (2017–18) – alto recorder, baroque violin, baroque cello, theorbo

to the same failing light... (2018) – accordion and string quartet

with magic in my eyes... (2019) – children’s choir, percussion, piano

Audio Material (see enclosed USB Drive)

1. ...to imprison the wind
   - Audrey Milheres (piccolo), Corentin Chassard (cello), Sam Cave (guitar)
   - Coronet Print Room, London, UK, 25/10/17

2. Curved lines ’gainst square glass
   - Johan Löfving (theorbo)
   - St George's, Bristol, UK, 27/02/17

3. ...but their stillness showed plainly...
   - Distractfold
   - Antonin Artaud building, Brunel University, London, UK, 10/05/17

4. ...but their stillness showed plainly... (version for string quartet)
   - Manon Quartet
   - Gaskell building, Brunel University, London, UK, 29/06/17

5. At the edge of his dreams...
   - Adrien Bernege (clarinet in B♭), Fra Rustumji (violin), Corentin Chassard (cello), Sam Cave (guitar), Bartosz Glowacki (accordion), Guillaume Mathias (piano), the church bellringers of Thornham Magna, Jon Hargreaves
   - Thornham Magna, Suffolk, UK, 22/07/17
6. *Refracted Meditations III*
   - Sam Cave (guitar)
   - *Refracted Resonance*, CD, Metier MSV 28586, 19/04/19

7. *...on plain air...*
   - Improviso
   - The Beldham, Brunel University, London, UK, 01/02/19

8–10. *...to the same failing light...*

8. *...the space that lies between them...*
   - Michele Bianco (accordion)
   - “Eglės” sanatorija, Druskininkai, Lithuania, 23/06/18

9. *...touchless as they sleepwalk... I and II*
   - Anna Brigham (violin and viola), Mandhira de Saram (violin) and Corentin Chassard (cello)

10. *...to the same failing light...*
    - Irina Serotyuk (accordion), Simas Tankevičius (violin), Konrad Levicki (violin),
        Ugnė Petrauskaitė (viola), Ignė Pikalavičiūtė (cello)
    - “Eglės” sanatorija, Druskininkai, Lithuania, 23/06/18

11. *...with magic in my eyes...*
    - Holloway Children's Choir, Tom Green (piano), George Holloway
    - Holywell Music Room, Oxford, UK, 08/07/19
1. **Introduction**

Listening intensely to the decaying sound of a bell is one of the most evocative and pleasurable activities I can think of. As the sound pulsates and ebbs away, whole worlds of pitch, colour and timbre can be heard ‘inside’ the strike note. The ‘interior’ universe of a single perceived sound is one of the most significant themes running through this portfolio. Perhaps it is my formative training and continuing performance career as a guitarist that explains my fascination with decaying, bell-like sound; in any event a fascination with the colouristic possibilities of individual pitches and the combination of these colours represents a large part of the motivation behind the works in this portfolio.

In a more general sense the musical works presented here display many technical and expressive traits that have become essential ingredients in my musical language. Broadly speaking they can be divided into two types:

**Type A: Technical resources related to bells or bell-like sounds**

1. **The tuning analysis of real bells.** Analysis of the bells of St Stephen’s, Rochester Row in Westminster and St Mary Magdalene in Thornham Magna, have provided the inspiration for the harmonic framework for several pieces. The tuning of the bells at St Stephen's inspired the chords upon which *Reflections on Blue* is based and defined the instrumental scordatura for both versions of *...but their stillness showed plainly*.... The bells of Thornham Magna in Suffolk are used as an instrumental resource in *At the edge of his dreams*... and the interplay between the tuning of the bells and that of equal temperament forms a large part of the musical discourse.

2. **Duration controlled by decay.** The time it takes for a note or chord to become inaudible is an important rhythmic device in my music. It can be used to control the rate of harmonic change (*...on plain air*...), define the length of phrases (*Like Trees in November*), or sections (*My lungs taste the air of Time Blown past falling sands*...) and can create moments of repose and reflection when contrasted with music driven by pulse.
3. **Pulsating Drones.** The repeated striking of a decaying pitch provides the harmonic reference of a drone. The rhythmic impetus of the ‘strike’ can be layered in the foreground of the music using different tempi, (*My lungs taste the air of Time Blown past falling sands...*), used as an accompaniment to support other material (*...on plain air...*) or as a decorative rhythmic figuration (*Curved lines 'gainst square glass*).

**Type B: Technical resources not related to bells or bell-like sounds**

1. **Partials five and seven of the overtone series.** The contrasting of these overtones with their equally tempered equivalents forms a major part of my harmonic language. In this portfolio gliding, blending, jumping and contrasting between two harmonic areas defined by the varying colours of a central pitch form the central discourse of phrases, sections and whole pieces.

2. **Creating space for improvisation and the importance of performer listening.** In the most obvious sense there are works that attempt to create a framework for improvised melodies or ‘solos’ (*Reflections on Blue and ...on plain air...*). More subtly, there are several examples of performers responding to each other based on what they can hear the other players doing. Examples include the ‘textural chaconne’ in *...on plain air...*, dynamic swelling in *...to imprison the wind* and the balance of dynamic hairpins against vibrato strength and intensity in *...to the same failing light....*

3. **Apotheosis ending.** It is difficult for me to trace the origins of my fascination with music that lifts away from the preceding discourse at the end of a work, although I think that I first became aware of it when analysing the magical ending of Stravinsky’s *Les Noces* (1923). In any case I feel it plays an important part in the dramatic concept of my music by implying that the music will continue to happen and develop after the audience has ceased to listen. I view each piece as a minute, and yet infinite, universe that the audience and performers are visiting for the duration of the piece. In my music the apotheosis ending is effected by several technical means including, but not limited to, the emergence of a new melodic element (*Curved lines 'gainst square glass*), the introduction of a new playing technique (*...but their stillness showed plainly...* and *...to the same failing...*).
light...) or a subtle yet distinctive harmonic shift (...on plain air...). Effecting an apotheosis ending is not, however, simply a technical matter of deploying ‘something new at the end’. Rather it is a means by which the music reaches a high point of expressive potency. This can often involve the emancipation of something already latent in the preceding music such as the melodic phrases at the end of Curved lines ‘gainst square glass and the way their seed in embedded, but not germinated, in the main body of the piece. In this way the work strives for a perfection of that latent expressive potential and in so doing evokes the true meaning of apotheosis: ‘making divine’.

4. **Self-transcription and arrangement.** The act of arranging one’s works for different forces can sometimes be a practical necessity. On occasion that pragmatic act can give rare insight into the nature of one’s musical material and its intrinsic expressive strength. Three such instances have been included in this portfolio.

Expressively speaking, this portfolio represents a search for ‘fragile intensity’. In each piece I have sought to build a universe in miniature and tried to create a feeling of the music exploring the infinite poignancy of a frozen moment. To achieve this I have attempted to use, amongst others, the technical means laid out above to focus the music on the detail of timbral colour, textural interest and inventiveness of sonority. Although I have arrived at these specific technical means over long periods of aesthetic self-reflection and refinement it is nonetheless important to acknowledge the ‘compositional heritage’ of my music.

My music is not ‘spectral’ in the original sense of the term but my interest in certain ‘spectral insights’ has greatly enriched my harmonic language and for this I would like to acknowledge the impact of the music of Horaţiu Rădulescu, Tristan Murail and Gérard Grisey. Through my study and enjoyment of Rădulescu’s music, especially the fifth string quartet Before the Universe was Born, and my experiences in giving many performances of his 1985 work Subconscious Wave for guitar and digital sound, I gained great insight into the harmonic series and the colouristic potential of various partials of that series. In the music of Giacinto Scelsi I found a kindred interest in the ‘internal’ beauty of single pitches. His Quattro Pezzi for orchestra, for example, seemed to revel in
the almost infinite possibilities for the colouration of single notes that I wanted to become part of my harmonic language.

It is also important for me to acknowledge the impact of Morton Feldman and Anton Webern on my music. The economy of pitch resources and focus on the minutiae of timbre, texture and sonority in Webern's Five Pieces for Orchestra op.10 and the combination of this delicate, pitch-driven intensity with a fleeting sense of lyricism in Feldman’s output, especially The Viola in my Life II, are both great sources of inspiration to me. Feldman's thinking on the topic of musical form also resonates deeply with me. The idea of ‘getting rid of the glue’ so that the sounds could ‘be themselves’ perpetuated by Feldman, John Cage and other ‘New York School’ composers was an important starting point for my ideas about musical form. Nowadays I have refined my thinking and feel that there is formal ‘glue’ in my music, but the type, weight, density and strength of the ‘glue’ is different from piece to piece, and is largely defined by the nature of the musical material and the context of that material within each piece. In this way I feel that my structural thinking also owes much to the legacy of Edgard Varèse and his idea that ‘each of my works discovers its own form, I could never have fitted them into any of the historical containers'.

Just before I began my PhD research I had spent a lot of time evaluating and refining my rhythmic thinking and the use of structural polyrhythms in particular. The music of Elliott Carter is very important to me, in particular the inspiring rhythmic architecture in his Double Concerto for piano, harpsichord and two chamber orchestras, his Variations for Orchestra, his Third String Quartet and the reflective beauty of his song cycle In Sleep, in Thunder. Indeed, the impact of Carter’s rhythmic language can be seen clearly at the beginning of this portfolio in the structural polyrhythms of My lungs taste the air of Time Blown past falling sands... and the ghost of this technique returns, on a smaller localised scale, in later pieces, most notably in At the edge of his dreams... and ...on plain air…. It is fascinating to me that Carter made over two thousand pages of sketches for his Third String Quartet, and that one of his earliest successes, the Cello Sonata of 1947–8, was not composed until he was forty years of age. His work ethic and

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2 Varèse, E. 1966. The Liberation of Sound. Perspectives of New Music, 5.1, p.16
dedication to developing his musical language serve as poignant reminders of the importance of hard work over long periods in order to achieve artistic growth.

Alongside this ‘historical’ heritage and its thread of influences within my music it is also important to acknowledge the impact of my colleagues, peers and friends. Much of this is done in the acknowledgments section of this commentary document but I would like to particularly mention the music of Christian Mason, specifically his works Isolarion: Rituals of Resonance (2012), Learning Self-Modulation (2011) and Noctiluence (2009). Through the use of drones, ‘spectral emanations’ and timbral colouring of individual pitches, these works exemplify Mason’s fascination with the nature and colour of pitch. This is a fascination that mirrors, and in some ways inspired, my own. The decay-based rhythmic language of George Holloway’s Second Guitar Sonata (2014) contains the seed of much of my own thinking about the nature of decaying sounds and their impact on rhythm. The beautiful, hushed and delicate textures of John Croft’s music are also an important contemporary influence and I would wish my ear for the balance of texture and timbre to be as finely tuned as Croft’s in pieces such as Seirenes (2014–16).

Several extra-musical influences also contextualise my research, most notably the eclectic literary references that provide titles for many of my works. Michael Finnissy impressed upon me the importance of selecting the right title when I was an undergraduate student at the University of Southampton. He taught me that titles are like keys in that they provide both the audience and the performers with a route into the expressive world of the music. As a reflection of my interest in ‘frozen moments’ my titles are usually phrases or sentiments taken from literary works that, to me at least, capture something of the spirit of the music. The fact that these phrases are lifted out of context is also important as it reinforces the idea that there is something happening before and after the words that make up the title; this in turn reinforces the idea that the music is a frozen moment, an extraction from a larger, unseen, whole examined and inhabited in minute detail.

Frank Herbert’s Dune, Richard Adams’ Watership Down and William Peter Blatty’s novels The Exorcist and Legion are some of the main literary works that lend titles to my pieces. They may seem disparate and unconnected at first but, for me at least, they share some important characteristics. All of these authors share a magical gift for
creating special moments in their works that feel as though they could be inhabitable indefinitely. A good example of this is the scene in *Watership Down* when Bigwig stumbles upon some captive does. One of the does is reciting a poem longing for freedom and her listeners are hanging on her every word and sentiment, wishing the feeling could go on forever: ³

The frost is falling, the frost falls into my body.
My nostrils, my ears are torpid under the frost.
The swift will come in the spring, crying "News! News!
Does, dig your holes and flow with milk for your litters."
I shall not hear. The embryos return
Into my dulled body. Across my sleep
There runs a wire fence to imprison the wind.
I shall never feel the wind blowing again.

On the surface it may appear that this scene inspired *...to imprison the wind* because the imagery in the fictional poem mirrors some of the ‘wind-like’ sounds in the cello near the beginning of the work, or because the collective longing for an elusive freedom, shared by the reciting doe and her listeners, is evoked by the *Klangfarbenmelodie* line in the central section of the work that never quite manages to take flight into a fully formed melody. However, it is important to note that this is a retrospectively inferred relationship. *...to imprison the wind* is not ‘inspired by’ this passage in *Watership Down* in any traditional sense. Very often I do not settle on a title until late in the compositional process and, occasionally, pieces are finished untitled. The naming of a work is often a process of ‘finding’ the right passage of a literary work that shares some expressive characteristics with the music I have already composed and that also shares the fragile and elusive intensity that much of my music searches for.

Recently I have been fortunate enough to meet the distinguished poet David Harsent on a number of occasions, after he heard some of my music in a concert. His poems have had an important effect on me as they reinforce the importance of the balance of intuition and craft in the creative process. Many of David’s poems are set in, or take

their impetus from, dreams. *A Dream Book* from his 2014 collection *Fire Songs* revolves around a relationship between a man and a woman that is conducted entirely in dreamtime. The poem is constructed of many highly detailed, evocative, yet essentially abstracted snapshots of various stages of the protagonists’ relationship and it has proved endlessly fascinating to me to try and imagine the unwritten narrative that connects one stanza to the next. In this way David’s work perfectly occupies the undefined region between abstraction and deliberate evocation that I find so expressively engaging. This poem has also provided titles for all of the movements of *...to the same failing light...*, and David’s work *Bowland Beth*, also from *Fire Songs*, shares a similar relationship with *...on plain air...*.

Finding titles is an intuitive and organic process for me and is a reflection of the fact that I would like my music to strike a balance between abstraction and evocation. I feel that if I made pieces that were too closely ‘inspired by’, or attempted to convey to the listener, a specific image or emotion the expressive power of the music would be reduced, as it would inhibit the listener from engaging with the ‘rhetorical ellipses’ of the work and thus truly inhabiting the music by filling in the gaps between the sounds and the title with their own ideas and feelings about what they are hearing.

Closely linked to these ideas is the way my interest in the visual arts informs my compositional practice and helps to contextualise my approach. I greatly admire the works of British sculptor Sir Anish Kapoor for their balance of abstraction and evocation and their economy of material. His pigment sculptures from the 1980s, titled *A Thousand Names*, inspire me with their perfect balance of form and material. They are beautiful, exotic and beguiling shapes and are seemingly constructed of pure colour: the material has defined the form and, in fact, the form has become the material; I would like my music to also achieve this delicate balance. The Japanese ink painter Sesshu Toyo strikes the same balance in much work from a much earlier period and I would particularly like to acknowledge the impact of his *Haboku-Sansui* (Broken Ink Landscape Scroll) of 1495 on my work. At first glance the work appears to be built of abstract shapes, but the closer one looks the more detail there is to find. It is a painting that rewards close and concentrated observation and strikes the perfect balance between fragility and intensity, elusiveness and poignancy.
In 2015 I visited Tianjin, China to perform and lecture at the Tianjin May Festival. As a souvenir I purchased a book instructing the reader in Chinese ink painting. Each picture is divided into a number of ‘lessons’ where new layers of detail are added to an initial sketch. I have spent many hours enjoying this book and moving through each picture as it takes shape through the ‘lessons’. It is probably very instructive for the reader of this portfolio to know that I, almost every time, prefer the intermediate ‘lessons’ to the finished painting. Their beauty is, for me, enhanced and not diminished by being ‘unfinished’ in the traditional sense and they possess a certain elusive ‘otherness’ that I find deeply satisfying and moving. Very early in my PhD research Professor Christopher Fox and I were discussing a melodic line in one of my sketches. He suggested that it would be more successful in the context of the piece if I ‘poked some holes in it’ and he remarked that ‘some of the best music is music that is only just music’. The pictures in this book are also very successful as paintings because they are ‘only just paintings’.

I would like to make some observations on the nature of pursuing composition as PhD research. I have previously mentioned that the balance between compositional intuition and analytical self-reflection is a necessary and fundamental part of creativity and there is a danger that undertaking a PhD in composition can shift the balance too far in the direction of analysis. Analysing one’s own music inevitably entails a degree of self-consciousness and I believe that, although creatively healthy when balanced against intuition, too much of this can be crippling for the creative process. At many points in the composition of a work a ‘leap of faith’ is required and the ability to trust one’s instincts to make the right artistic decision, or to try new and unexplored things, is possibly the single most important thing for any creative artist to possess. Having said that, without critical self-reflection no artist can refine their techniques and hone their expressive language. Throughout the commentaries that form the bulk of this written component of my thesis I have tried to represent the balance between intuition and analysis that I have sought in the compositional process.

I would also like to point out that the commentaries in this portfolio should not be viewed as exhaustive studies of the works that I have composed. Instead they should be thought of as attempting to identify and explain the most prevalent technical resources
in my musical language whilst also clarifying the expressive intent of each piece and exploring the relationship between these two essential parts of musical discourse. Many of the most important creative decisions I take when composing music are intuitive and arise naturally from personal and organic responses to the material and expressive aims of the music. In this way it is not always possible to capture in writing precisely what makes the music ‘work’. The ‘success’ or ‘failure’ of a piece, the things that make it hang together, make it expressive, and give it life beyond the building blocks of pitch and rhythm are often things that one hardly notices because they are so much part of ourselves. I have tried very hard to be aware of this shortfall in the self-analytical nature of this process when writing these commentaries and where possible acknowledge the importance of the intuitive side of my compositional decision making.

In the summer of 2018 I was selected to attend the Composer+ Summer Academy in Druskininkai, Lithuania in order to compose *...to the same failing light...* for accordion and string quartet. Whilst there I was invited to try to write down in words why I compose music, as a kind of ‘totem’ in case it ever seemed impossible to continue composing. This little slip of paper now lives in a drawer of my composing desk, tucked inside a book. It is the metaphorical tooth under my musical pillow and every so often I take it out and re-examine whether I still believe in its sentiment. Happily I still do and as time goes by the sentiments on that slip of paper mean more and more to me. The three sentences that I wrote down in Lithuania probably provide the best possible introduction to this portfolio and so they will conclude this introduction. I hope my scores and commentaries are their embodiment and animation.

*Resonance allowing for:*

*Escapism, through the beauty and vibration of pure sound, to an intensely fragile place*

*Veiled poignancy such as memory may evoke*

*S. Cave 16/6/18 Druskininkai, Lithuania*
2. My lungs taste the air of Time Blown past falling sands...

2.1 Beginnings

In Frank Herbert's 1965 science-fiction masterpiece *Dune* the underhand political manoeuvrings of an old enemy forces the Duke Leto Atreides to uproot his family from their lush home-world of Caladan and take up administration of the desert wasteland planet Arrakis. In his first days on Arrakis the Duke laments the loss of his beloved Caladan and in a quiet moment of self-pity and longing he recalls two lines from a poem:

My lungs taste the air of Time
Blown past falling sands...⁴

This scene greatly influenced the soundworld of the piece: the dry, dusty, arid landscape surrounding a moment of almost lyrical longing that is quickly rejected as the oppressive heat of Arrakis asserts a languid tension.

In selecting the ensemble for this piece I was very conscious of finding a combination of sustaining instruments (like the piccolo or violin) and resonating instruments (such as the piano and harp) to be able to evoke the vast open spaces of Arrakis and, when needed, the intimate fleeting lyricism of the Duke's longing for his home. I eventually settled on the combination of piccolo, violin, cello, piano and harp as this seemed to have the perfect balance of sustain and decay.

2.2 Rhythmic Experiments

One of the first compositional decisions I made was to find a slow polyrhythm to help structure the piece. I knew that I wanted the piano and harp to state a slowly undulating series of decaying chords and that each instrument should have its own pulse rate. I began experimenting by setting two metronomes to different, slow pulse rates and listening to the resulting polyrhythm. I eventually settled on a pulse ratio of 21:15 beats

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per minute (MM21:MM15). These seemed to have an advantageous coincidence rate for structural purposes and were slow enough to allow sufficient decay of the two chords I had designed. To notate this rhythmic framework I worked out that at a tempo of 70 beats per minute the two pulse rates could be notated thus:

![Figure 2.1: Rhythmic layers](image)

This, notionally, gave a fourteen-beat palindromic cycle for the slower pulse rate and a ten-beat palindromic cycle for the faster pulse rate. At the start of the sixth and seventh repetitions respectively, i.e. after 15 iterations of the MM15 layer and 21 iterations of the MM21 layer, the two pulse cycles would coincide, forming a kind of ‘downbeat’ which, in many cases, marks the structural change from one section of the piece to the next.

Onto this pulse ratio I layered a cycle of accents taken from a rhythmic form in Flamenco music called the Buleria. This is a twelve-beat cycle with accents on beats 3, 6, 8, 10 and 12, beginning on beat 12:

12, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11

The Buleria is a fast Flamenco form and represents a folk music from an arid area of Planet Earth. It struck me as fitting that it should appear in my music greatly slowed and ‘alienated’ from its origins.

### 2.3 Harmonic Beginnings
The harmonic canvas of the piece takes its cue from the first piano cluster and, indeed, the first harp chord:
For the violin and cello I took the harmonic series of the low F♯ and simply tuned all the C, G, D and E strings to match a ‘rounded’ overtone series:

I also decided that I wanted to be able to access an interval of a minor ninth in natural harmonics on the violins so I tuned the A string down to a G#. This sets up a harmonic tension between the equal temperament of the piano and harp and the microtonality of the bowed strings. At many points in the piece the piccolo works as a bridge between the two worlds, either by the use of vibrato or lip-bending. The cello and violin are also
used to provide a ‘white noise’ drone during the opening sections of the work that gives an arid context for the decaying chords.

### 2.4 Macro-form

Structurally this piece divides into five main sections.

<table>
<thead>
<tr>
<th>Section</th>
<th>1</th>
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<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rehearsal Letters</td>
<td>Start – A</td>
<td>A – B</td>
<td>B – C</td>
<td>C – D</td>
<td>D – End</td>
</tr>
</tbody>
</table>

Figure 2.6: Macro-form

### 2.5 Small-scale Procedures, Continuity and Gesture

An additive and subtractive process drives the ‘swapping’ of pulse rates and chords at letter A. The piano’s slower pulse rate of MM15 accelerates by subtracting a triplet quaver from each iteration, whilst the harp’s MM21 pulse decelerates by similar means making for a ‘mirror image’ arithmetic series.

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The swapping of pulses and pitches is a relatively short process, being completed in b.23, but it begins to free up the pitch space of the piano and harp and allows them to begin rising in register, a trend which continues throughout the section.

Bar 23 also marks the beginning of another trend, the rise to prominence of the pitch D in accelerating and decelerating phrases. In the build-up to rehearsal letter B the cello takes the role of accelerator and deploys three phrases working in quintuplet semiquavers, usually around subsidiary coincidence points of the polyrhythm:

These are often answered by decelerating phrases in the piccolo and piano.

The major textural change at rehearsal letter B coincides with, and acts as support to, the emerging piccolo melody. Now the piano and harp tend to work together only at the coincidence points of the polyrhythm; at other times they work independently in support of the melody above. The harmonic materials for this section are derived from four chords developed out of the ‘arrival point’ chord at rehearsal letter B. The general procedure was simple: retain the external interval (albeit transposed to create movement in the bass) and re-order the internal intervals. This created a set of chords that were slightly different in colour but intrinsically ‘belonged’ together.
The pitch content for the melody itself is derived from the higher pitches of each chordal set, and the contours of the melodic line were crafted mostly by intuition. This was an attempt to create a slightly broken lyricism, at once fleeting and poignantly lamenting, like wisps of a song long forgotten. Occasionally phrases of the melody are hocketed with the piano whilst the other instruments make use of Klangfarbenmelodie to add colour to the texture. The interaction between the ‘tuning’ worlds is also an important feature of this section. The use of different strings to colour the same basic pitch in the violin and cello (bb.48–49), and the vibrato (b.42) and glissandi (b.44, 50, 52) intended to blend and bend between fixed pitch reference points, all add to the slightly freer feeling of this section.

During all the previous sections the harp and piano polyrhythm has continued unbroken and, whether every pulse was stated or not, it played some role in the structural continuity of the music. At rehearsal letter C this is completely disregarded as a new procedure controls the flow of the piece: the piano and harp state chords that are held on a pause by the conductor until he/she can no longer hear the harmonic identity of the pitch collection. Above this the piccolo, violin and cello project repeating fragments that highlight certain pitches from the harmonies. The repetition of these fragments, combined with the decay of the chords, creates a kind of ‘flowing-stasis’ that I find very attractive, and I very much enjoy the way the challenges of continuity in the section are controlled by listening to the sounds being produced. Designing the chords for this section presented an interesting challenge: the conductor is not listening for the death of each note but rather the decay of the harmonic identity of the chord. I also wanted to find chords that had the potential to last for different lengths of time and so would imbue this section with a new kind of harmonic rhythm compared to the rest of

Figure 2.10: Chords for rehearsal letter B
the piece. I began by using the same ‘internal interval rotation’ technique previously described and eventually arrived at the following set of chords with associated possible lengths (melodic ‘projections’ are given in brackets).

![Chords, melodic projections and associated lengths for the build up to rehearsal letter D](image)

The intention was to build up to chord 5 as that marks the start of the final section. As such the chords were deployed in the following pattern:

1 2 3 2 3 4 5

This develops a sense of harmonic rhythm, which in turn is tempered by the halting, floating nature of the decay of every chord in the pattern.

Chord 5 arrives at rehearsal letter D and reinstates the low F♯ as the principal bass pitch of the work. It also emphasises a very high D, returning that pitch to the prominent role it enjoyed in the first sections. Rhythmically speaking it is the Buleria cycle that becomes the star of the final sections of the work, the harp reintroducing it at its fastest pulse rate (MM105) at letter D. The music from letter D to the end of the piece divides into two subsections. The first of these is characterised by the high D pulsating in the harp against the decay of chord 5 with drones in the piccolo (C♯), cello (C) and violin (D). From b.68 a special texture is developed: the notes of chord 5 are restated in the harp and piano as they become inaudible to the players. To reinforce this the drones in the other instruments become single pitch iterations triggered by the players hearing ‘their note’ in the piano. These two techniques are intended to create a shimmering, artificial extension of the natural decay of the harmony. At b.71 the final section of the work allows the high D pitch to take over completely the texture. Beginning with the
violin, new layers are added to the harp pulse, each one stating the pitch at a different pulse speed, but all united by the Buleria cycle of accents:

<table>
<thead>
<tr>
<th>Pulse speeds of 'Buleria' high D from b.71</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harp</td>
</tr>
<tr>
<td>Violin (joins at b.73)</td>
</tr>
<tr>
<td>Piano (joins at b.78)</td>
</tr>
</tbody>
</table>

Figure 2.12: Poly-temporal canon speed layers

Together these layers form a poly-temporal textural canon which, when coincidences are taken into account, projects a repeating 5 beat cycle:

Or in its simplest form:

The harp drops out at b.81 leaving the two slower pulse rates alone. Plucked bass notes on the piano provide an eerie metallic bell that decays into the distance and evokes a memory of the opening of the work. The violin shifts to natural harmonics and together with the piano projects a gently lilting rhythm in six beats.
2.6 *to imprison the wind* - Adaptation for piccolo, cello and guitar

*My lungs taste the air of Time Blown past falling sands...* was composed for The Octandre Ensemble. The opportunity for the ensemble to premiere some of my work came at the 2017 Coronet International Festival at the Coronet Theatre in Notting Hill, London. The practical considerations of these concerts forced me to create a version of this piece that could be performed by a trio of piccolo, cello and guitar.

### Introduction of the guitar

The main challenge in this reduction was to find a way to combine the original piano and harp parts into one guitar part.

Fortunately both the piano and the harp begin the piece with harmonies constructed of three pitches each. The six strings of the guitar can be used to accommodate the six pitches required by these two harmonies by retuning the instrument.

<table>
<thead>
<tr>
<th>Guitar Number</th>
<th>String</th>
<th>Pitch in Standard Guitar Tuning (sounding)</th>
<th>Piano Pitches</th>
<th>Harp Pitches</th>
<th>Resultant Guitar Tuning (sounding)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>E4</td>
<td></td>
<td></td>
<td>Eb4</td>
<td>Eb4</td>
</tr>
<tr>
<td>2</td>
<td>B3</td>
<td>Ab2</td>
<td></td>
<td>Ab3</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>G3</td>
<td>F#2</td>
<td></td>
<td>F#3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>D3</td>
<td>D4</td>
<td></td>
<td>D3</td>
<td>G2</td>
</tr>
<tr>
<td>5</td>
<td>A2</td>
<td>G2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>E2</td>
<td>C#3</td>
<td></td>
<td>C#2</td>
<td></td>
</tr>
</tbody>
</table>

*Figure 2.16: Creation of the guitar scordatura*

In creating this tuning some octave transpositions from the original harp and piano chords were necessary and these had an interesting effect on the harmonic ‘weighting’ of the guitar part when compared with the original piece. The relocation of the C# to the bottom of the harmonic range is probably the most striking effect as it roots the music in relation to this low C#2 in contrast to the low F#2 of the piano in the original version. The ‘standard’ intervallic structure of the piano’s harmony is also altered by this tuning in that the G now sits at the bottom of the chord instead of in between the F# and Ab.
Essentially the process of incorporating the guitar transformed two parts into one part, both in the obvious sense of the number of people playing but also timbrally and dramatically. In a documentary about his compositional habits Sir Harrison Birtwistle talks about making music that is built of independent layers and that when one combines two things together one gets ‘another form of one’. This is clearly evident in ...to imprison the wind as the guitar embodies the idea of a new form of one thing, built from two independent layered parts. The process of creating this version of piccolo, cello and guitar was really my first insight into the way in which self-transcription, arrangement and re-composition significantly enhance one’s awareness of the nature of musical material and was a poignant reminder of the ways in which the need to be practical can lead to exciting artistic discoveries.

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5 Mustill, T. 2014. Harrison Birtwistle: Notes from the end of a Garden. <https://www.youtube.com/watch?v=7pzM7lq4zMs> 16/10/17
3. Curved lines ‘gainst square glass

3.1 Beginnings

Although I had long been fascinated by the very special nature of the theorbo’s resonance, before beginning to compose this piece I had no knowledge of the instrument’s technical workings – I didn’t even know how it was tuned. It was immediately obvious that close collaboration with a player would be essential to produce the expressive aims I had in mind whilst also developing an idiomatic set of materials for the piece: Johan Löfving was, and has been for many years, a perfect collaborative partner.

I my mind’s ear I had a clear picture of the kind of resonances I wanted for the piece. I wanted to build on the ‘flowing-stasis’ of My lungs taste the air of Time Blown past falling sands... and find a set of materials which had a meditative yet melancholic feeling, an inactive yet restless world where the mostly quiet sounds invite close and concentrated listening and where the gestures evoke a kind of ‘energy-less intensity’.

To realise these ideas I began learning about the practicalities of the theorbo by listening to, and watching, Johan play pieces from the standard repertoire. It immediately struck me that the relationship between the open bass strings and the fretted upper strings was almost always defined such that the bass note would be plucked first and then any chords or melodic decoration would be stated above it. I was initially very attracted to this idea as the natural decay of a bass note could be used to rhythmically structure sections of the work, much as I had done in my 2010 work 10:01 for violin and piano. It was also interesting that when there were scalic runs on the bass strings they invariably descended in pitch and they were played apoyando (rest stroke) so the stroke would mute the previous note. I knew that I wanted access to as much resonance, sympathetic or otherwise, as possible so I decided to try and include plenty of ascending bass runs and have Johan play them tirando (free stroke) to allow the notes to blend and over-ring.
Features of the tuning scheme

We experimented with various interesting chords voicings arising from the nature of the tuning and explored the possibilities of using vibrato on the relatively low-tension strings to bend the pitch of notes and chords. Johan also demonstrated the rich melodic qualities of the second string with its relatively low pitch and thicker string gauge. I was particularly struck by the way this string could activate the sympathetic resonances of the other strings and resolved to try and find other gestures and harmonies which would similarly activate the ethereal sounds of this resonance.

Initial Materials

Two particular materials emerged as having the poise and meditative melancholy I was looking for. One was a simple interval of a minor third that could be fingered in a variety of ways to project short melodic cells. The other was some unison pitches that were particularly effective when ‘pitch-bent’ with a wide, slow vibrato.

In my reflections on our first session together I began to expand on the materials we had discovered. I became attracted the idea of balancing them against a material defined
by the natural decay of bass notes accompanied by a trill or tremolo and made some sketches of the possibilities:

1. Right hand ‘trill’ with bass notes plucked by the left hand
2. Left hand ‘trill’ with bass notes plucked by the right hand

Johan and I met again and tested the materials once I had assembled the first few phrases into what eventually constituted the first section of the piece. Revisions were made and from this point on the piece began to grow from two materials that had emerged as complementary and evocative of the expressive soundscape I wanted:

1. A-B-C minor third with associated rhythmic character, fingerings and tone-colours
2. Plucked bass notes, held to natural decay length, combined with a trill, tremolo or varying filigree.

Essentially the piece developed in the way described above – regular meetings with Johan to play new sections or materials and receive his feedback. This process was invaluable as it allowed me to continually judge how well I was assimilating the natural style and gesture of theorbo technique, how well I was developing my internal ear for theorbo resonance and how fluent I was becoming in designing and visualising fingerings to assess playability. In short it was this close collaboration with a player that allowed me to develop an idiomatic musical syntax that achieved my expressive aims.

3.2 Form and Structure

Broadly speaking the finished work falls into four large sweeps or sections.
### 3.3 Small-scale Techniques and Procedures

Section 1 explores the two main materials outlined above and its overall shape is that of a crescendo towards rehearsal letter D. The minor third is mostly notated with precise rhythm except for one phrase which gives a set of chords and fingerings as a starting point and allows the player to mix the voicings at will. This is a nod to the improvisatory history of the theorbo as an accompanying instrument and it further unsettles the pulse established in the opening phrase. It also brings the ‘decay period controlled’ bass notes away from their more initially static iterations and into a ‘directional’ gesture that builds up towards the chords at rehearsal letter B. It is worth noting that I have been very specific throughout the work with regard to which string certain notes should be played on – the string chosen for a note or chord at a specific moment had a huge impact on its sonic and expressive effect. This discovery was, in fact, one of the most fascinating things about writing for theorbo. The subtle and introverted nature of the instrument means that small decisions about fingerings take on an unprecedented level of gestural and expressive importance, perhaps even more so than on other famously introverted instruments such as the guitar.

**Section 2**

As this first section was taking shape I began to feel that the arrival point at letter D would demand a change in texture and as such a third type of main material was
necessary. I began to work on some ideas using scales and movement by step. In order to understand the practical implications of my ideas Johan showed me some tonal scales and their characteristic fingerings.

![Figure 3.5: D major scale with a traditional fingering](image)

![Figure 3.6: G major scale with a traditional fingering](image)

Whilst these traditional fingerings were very characterful and idiomatic, they contained several consecutive pitches on the same string. These could be slurred with the left hand or plucked but in either case Johan and I felt that they reduced the amount of overall resonance. I wanted to capitalise on the over-ringing, ‘campanella’, style of playing and the resonance it generates. To this end I needed to maximise the use of open strings in my scale figures and minimise the amount of consecutive notes along the same string and so Johan and I redesigned the above fingerings.

![Figure 3.7: D major scale with a modified fingering](image)

![Figure 3.8: G major scale with a modified fingering](image)

These features seemed to lend the scales an overall sense of motion and purpose tempered by a slightly directionless, almost meditative haze of over-ringing resonance; sounds that fitted perfectly with my expressive aims for this section and the piece as a whole. Combining this with my previous ideas about rising figures and the use of
tirando stroke I was able to form a ‘super scale’ that preserved the ‘spirit’ of our new theorbo scale fingerings but included the pitches and intervals I wanted to work with.

This ‘super scale’ was broken into smaller phrases and gestures and used to form the basis of section 2. It appears in its entirety on the second system of page 3 and builds to the climax of the section on the third system of page 3. At this point the highest pitch of the work so far is reached and a special chord intensifies the minor third interval of the opening material by combining it with semitones, minor ninths and a more angular sense of gesture.

Section 4: Apotheosis Ending

The next section to be composed was the final one (section 4), running from the 6/8 bar after rehearsal letter G to the end of the work. I wanted to construct an apotheosis ending that lifted away from the other materials in the piece, especially rhythmically speaking, but heightened the sense of melancholy. From the initial sketches of this section a lilting kind of modal melody began to emerge.

It had the feeling of a hazily remembered, or half-remembered, song or dance and seemed to have the right sense of continuity and apotheosis in relation to the music that would precede it. I felt that I could heighten the linear nature of this new melody by deploying it all on one string. The natural choice was the second string due both to its warm, rounded tone and the way it activates many sympathetic resonances in the other
strings. This, supported by occasional harmonics on other strings, created a hazy backdrop for the final section of the work.

I wanted this ‘song’ material to grow organically from the music and give a sense of the piece ‘evaporating into memory’ as final sections progressed. To this end I explored the ‘unison pitch bend material’, essentially the same pitch played on two different strings with one (or both) of them ‘pitch bent’ to a varying amount by vibrato, and embedded phrases of these held notes into the preceding sections. Working backwards from the ending in this manner allowed me to hint at the stillness to come in section 4 and heighten the sense of ‘flowing stasis’ that embodies so much of this work’s expressive concerns.

Section 3

Having set up a mechanism to facilitate the ending of the piece I turned my attention to section 3. This attempts to synthesise the scalar material from section 2 with the ‘natural decay with tremolo/trill’ material of the opening section. The flow of this section is again largely governed by the natural decay period of bass notes – however, this time the bass seemingly attempts to form snatches of melody by recalling the minor third material from the opening of the work. To create the expressive rise and fall of this section I again attempted to balance and contrast the following tones and colours:

1. Left-hand trill/tremolo.
   1a. Right-hand trill/tremolo.

2. Right-hand plucking of ‘decay’ notes.
   2b. Left-hand plucking of ‘decay’ notes.

For example, at the beginning of this section (1 bar before Letter F) the softer attack, and therefore shorter decay period, of left-hand plucking is used to create a ‘veiled’ and hazy tone colour that introduces the minor third material in its new register. The different tone colours, decay periods and attack created by the right-hand/left-hand pluck opposition is deployed as an aid to the expressive contour of the music
throughout the work, yet it seems that this procedure is most obvious in this section; possibly because of the fact that many of the materials are gathered in close proximity here. It is a similar story with the trills and tremolo materials. The different ways of articulating them create different tone colours and also give different amounts of control over the dynamic range of the trill/tremolo and the internal rhythm of the gesture. A case in point are the phrases on the second system of page 4 where the contours of the bass line require a finer degree of dynamic control – a job naturally suited to the right hand. This also allows for the crescendo up to the third system of the page to flow and deploys both hands in their ‘natural’ playing positions in order to access the loudest dynamic levels.

At various points in the composition of this section, and indeed the whole piece, it was necessary to revise my choices of which string, or which hand, a certain material was assigned to. Johan was an extremely sensitive guide in these matters and often suggested solutions that were both practical and in keeping with the expressive qualities of the music and the passage on the final system of page 1 gives a memorable example. I had placed the left hand trill (C–B) on the first string for its entire duration. We found that this was not practical given the sustained nature of the bass part at this point. The solution turned out to be to move the trill onto the third string just before the first bass note. We discovered that the timing of the string change was critical as the new attack on the sustaining bass note helped to cover up the physical action of the trill swapping strings. In the intimate world of the theorbo even a tiny break in the trill constituted a major event in the discourse. Much like finding good fingerings for solo classical guitar performance there was a ‘smoke-and-mirrors’ element to finding the right strings and hands for best effect on the theorbo.

In a large-scale expressive sense this work attempts to capture and inhabit the fleeting melancholy of a moment, poignant yet distant and frozen in time by memory. This feeling can perhaps be best summed up by the scene in Frank Herbert's *Dune* that gave the work its title: a young soldier lies dying of his battle wounds in a litter and requests a song to ease his passing. His commanding officer obliges and plays the nine-stringed ‘baliset’ whilst another soldier sings softly.
My Woman stands at her window,
Curved lines ‘gainst square glass.
Uprais’d arms... bent... downfolded
‘Gainst sunset red and golded-
Come to me...
Come to me, warm arms of my lass.
For me...
For me, the warm arms of my lass.\(^6\)

4. Reflections on Blue

4.1 Beginnings – Jazz, Bells and Spontaneity

I have long been fascinated by jazz and especially the modal jazz of the late 1950s. The technical and theoretical knowledge and skill of the jazz musician are akin to that of the classical performer but the differences in their psychological outlook and their approach to ‘perfection’ in musical performance are both marked and beguiling. The cultivated ability to have the confidence, within a pre-ordained framework, to do what comes naturally and intuitively is perhaps what draws me to jazz and is a timely lesson for any composer working in any style. In short it is the acquired instinct of improvisation that I admire and envy most.

For me this approach to making music is at its best on the 1959 Miles Davies album Kind of Blue and is best summed up by Bill Evans’s liner notes to the album:

There is a Japanese visual art in which the artists [sic] is forced to be spontaneous. He must paint on a thin stretched parchment with a special brush and black water paint in such a way that an unnatural or interrupted stroke will destroy the line or break through the parchment. Erasures or changes are impossible. These artists must practise a particular discipline, that of allowing the idea to express itself in communication with their hands in such a direct way that deliberation cannot interfere. The resulting pictures lack the complex composition and textures of ordinary painting, but it is said that those who see will find something captured that escapes explanation. The conviction that direct deed is the most meaningful reflection.7

This attitude and outlook on musical material and the nature of improvisation and composition provided the main impetus for Reflections on Blue: a wish to define a framework whereby instinct and intuition could be given the space to deliver their full expressive potential.

Alongside this there is a preoccupation with melody in the works on *Kind of Blue* that resonated with the desire to engage directly and overtly with melody that I was experiencing when I composed this piece. I wanted to incorporate through-composed melodic material with intuitively led melodies, essentially improvised ‘by hand’, and some music improvised by the performers.

**Basic Premise and Instrumentation Concept**

The basic structural principles of most jazz standards and original compositions – a ‘head’, or main melody, interspersed with solos from each performer in turn, whilst the rhythm section outlines the harmonic underpinnings of the piece – inspired the basic formal and conceptual principles of *Reflections on Blue*. Instead of a repeating ‘head’ section followed by improvised solos I combined my soloists in pairs and defined their roles as ‘solo’ and ‘shadow’, a foreground/background relationship that could be crossfaded or juxtaposed between the instruments of each pair at will. In each soloist pairing one of the instruments is tuned to equal temperament and the other exists in a microtonal tuning.

<table>
<thead>
<tr>
<th>Soloist pair 1</th>
<th>Flute</th>
<th>Soprano Recorder (+40)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soloist pair 2</td>
<td>Soprano Saxophone</td>
<td>Oboe (+20)</td>
</tr>
<tr>
<td>Soloist pair 3</td>
<td>Clarinet</td>
<td>Alto Flute (-30)</td>
</tr>
</tbody>
</table>

**Figure 4.1: Soloist pairings and tuning**

These tunings were chosen for their harmonic colour and the combination of instruments was chosen because of their overlapping ranges and registral colours. The tuning of each pair was arranged to avoid a situation in which all the standard orchestral instruments were tuned in equal temperament.

Alongside these ‘soloists’ I conceived of a ‘rhythm section’ consisting of guitar, piano and double bass, a fairly standard jazz line-up. Whilst the piano and the double bass
were tuned in equal temperament, the guitar tuning was designed to bring together the disparate tunings of the solo parts and blend the ensemble.

4.2 Basic Materials

Harmonic Constructs

At the outset of the composition of *Reflections on Blue* I was heavily involved with a fundraising project to restore the bells of St Stephen’s Church in Rochester Row, Westminster, London. During the course of the project I found a detailed tuning analysis of these bells, both as a complete ring and also as individual bells (see appendix 1). I used this tuning analysis of the overtones pitches of some of the bells to define seven ‘bell chords’ or harmonic areas for the piece. The register, voicing and intervallic content of each sonority was decided intuitively at the piano and is varied for expressive and dramatic ends as the piece progresses.

![Figure 4.2: Chords derived from bell tuning analysis](image)

Taking chord 5 and comparing it with the overtone profile of bell 5 in the tuning analysis (see appendix 1) gives the following insight into the chord’s construction.

![Figure 4.3: Chord 5 pitches as bell overtones](image)

The other chords in this diagram were all created using the same method of making intuitive choices from the seven partials of each bell listed in the tuning analysis and
arranging them in a satisfying registral and intervallic configuration. Each of these harmonic sets was arranged in its closest intervallic format to provide a scalic or modal version of each harmony from which to construct the solo parts.

The tuning of the guitar is derived from the tuning analysis of the ring of bells as a whole, rather than the overtones of any one specific bell, and is a mixture of equal temperament and microtonal tuning. The amount of deviation from equal temperament is defined by an ‘idealisation’ of the bell tuning analysis as displayed by comparing the ‘scale’ of the bells and the tuning of the guitar’s open strings.

![Figure 4.4: Bell notes with cent deviations from equal temperament](image)

![Figure 4.5: Guitar scordatura](image)

This tuning facilitates the guitar’s aforementioned role as a ‘blender’ and ‘synthesiser’ of the equally tempered and microtonal harmonic materials that make up the piece.

**Rhythm Section**

Basic jazz drumming patterns provide a gently undulating yet essentially fixed and cyclical support for the melodic and improvised solo material that sits above them. In *Reflections on Blue* I wanted to create this effect with the ‘rhythm section’ (guitar, piano, double bass) and I felt that cyclic structural polyrhythms could achieve this when assigned to non-percussion instruments, provided that the speed ratios were chosen carefully. In *My lungs taste the air of Time Blown past falling sands...* I used a ratio of 21:15 beats per minute (MM) to provide the rhythmic backbone of much of the work. *Reflections on Blue* adds a third, slightly faster, layer for the guitar to form a three-part polyrhythm of MM25:21:15, orchestrated as guitar : piano : double bass respectively. These speeds were carefully chosen so that they have what I term ‘coincident
coincisions’. By this I mean that at least two of the pulse rates land together when not at the beginning of a cycle: i.e. the general coincidence of all three speeds after fifteen pulsations of the MM15 layer, twenty-one pulsations of the MM21 layer and twenty-five pulsations of the MM25 layer. To illustrate these ‘coincidental coincisions’, consider that the MM speeds of 15 and 25 exist in a ratio of 3:5, so that for three pulsations of the slower speed there will be five pulsations of the faster rate and then the two pulses will coincide. Similarly MM15 and MM21 exist in a basic ratio of 5:7 and there will be coincidence of these layers after the respective number of iterations required by this ratio. MM25 and MM21 do not share a common factor and so no such ‘internal ratio’ exists and these two pulse layers will only coincide at the cycle-start as defined above.

During the composition of My lungs taste the air of Time Blown past falling sands... I had calculated that a pulse ratio of MM15:21 could be simply notated at a tempo of 70 beats per minute. Happily the new pulse layer of MM25 can also be simply notated at this tempo, using units of 2.8 crotchets per pulsation.

This underlying polyrhythmic structure is used in a variety of ways during the piece. Sometimes it is clearly visible on the surface of the music, as at rehearsal letter C. In other parts of the piece it is buried within the accompanimental role performed by the ‘rhythm section’ where it creates a guiding rhythmic framework for the gestures of rehearsal letter D. At still other points in the music, such as rehearsal letter H, it is ignored completely for reasons of drama or to accommodate a surface texture free from periodic rhythmic inflection. Incorporating the structural rhythmic elements into the pitched material of the ‘rhythm section’ in this way liberates the percussion to take on a decorative or augmentative role and so I decided that the soloists, when not playing their normal instruments, could perform the percussion parts. I have always found the sound of ride cymbals played with brushes and hi-hats played with the feet very evocative and attractive and, on a practical level, exclusively using these free-standing instruments would mean that the soloists would not be required to put their instruments down.
4.3 Solo lines and the roles and relationships of each ‘soloist pair’

The ‘soloist’ parts and indeed the whole ensemble are unified by the ‘bell chords’ defined above but within this unified framework I wanted each soloist and each soloist pair to have distinct characters and gestural identities. To this end the materials for each soloist and pair of soloists were sketched independently of each other and out of context in terms of the dramatic arc of the piece.

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Character when alone</th>
<th>Character of pair</th>
<th>Significant features</th>
<th>Significant features of pair</th>
<th>Chords used in sketch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flute</td>
<td>Jazzy, slightly flighty. Fragmented yet joyful, bouncy rhythms.</td>
<td>Jazzy, slightly flighty. Fragmented yet joyful, bouncy rhythms.</td>
<td>Large amounts of acciaccaturas, leaps of sevenths and ninths.</td>
<td>Spiky semitone clashes, close canonic shadow.</td>
<td>5</td>
</tr>
<tr>
<td>Soprano Recorder</td>
<td>Bright and brittle. (Shadow of flute).</td>
<td></td>
<td>’Lip’ bends.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soprano Saxophone</td>
<td>Cascading melodic gestures and flowing scales.</td>
<td>Cascading melodic gestures and flowing scales.</td>
<td>’Written out’ rallentandos, smooth legato slurs.</td>
<td>Predominant melodic intervals of minor and major second. Most phrases contained within the total compass of a minor ninth.</td>
<td>4</td>
</tr>
<tr>
<td>Oboe</td>
<td>(Flowing and cascading scales as shadow of soprano sax.).</td>
<td></td>
<td>As above.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alto Flute</td>
<td>’In glorious shadow’ – dark, round and veiled. (Also as shadow of clarinet).</td>
<td>’In glorious shadow’ – dark, round and veiled.</td>
<td>Trills of major and minor seconds, slightly unfocused sound.</td>
<td>Clusters of acciaccaturas followed by upward leaps of diminished, minor and major seventh.</td>
<td>4</td>
</tr>
<tr>
<td>Clarinet in B♭</td>
<td>Warm and lyrical. (‘In glorious shadow’ – dark, round and veiled as shadow of alto flute).</td>
<td></td>
<td>Chord 7 used in alternating phrases with flute. Phrases interspersed with small leaps.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 4.6: Instrumental characters
Other than the usual ‘soloist pairings’ defined above there are several other instrumental pairings used in this piece. In the opening of the work the clarinet and the flute team up and in later sections various trio and sextet textures are employed to make the original pairings and instrumental roles more or less visible. The desire to create a large variety of characters for the solo instruments was also driven by an inability to vary the tempo in any substantial way. The ‘rhythm section’ is unified by the notated tempo of 70 beats per minute and so creating variety in the surface gesture and
rhythmic, intervallic and registral contour is extremely important. Large tempo changes are unusual in jazz, particularly modal jazz, and this was something I was keen to reflect. This idea is in direct contrast with a large amount of classical music and western art music in general where tempo is often used as a tool for characterisation of contrasting materials.

4.4 Large-scale Form

![Figure 4.10: Structural map](image)

4.5 Small-scale Techniques and Procedures

Much of the main body of the piece is constructed out of the aforementioned ‘soloist shadowing’. Essentially this is a technique based on the principle of non-strict canonic imitation and is employed in a variety of ways. The first overt instance is in subsection IV where the soprano saxophone leads and is shadowed by the oboe in the phrases beginning in b.86 and b.91. The exact content of this ‘shadow’ is determined intuitively by following the contour of the saxophone’s main line and weaving a shadow that is close in pitch contour and tends to move rhythmically when the main line is sustaining. The flute (main solo) and soprano recorder (shadow) from b.107 and the alto flute (shadow then main solo) and clarinet (main solo then shadow) at b.163 are constructed.
in very similar ways, but with the contour and proximity of the shadow adjusted to support the character and dramatic contour of the main solo line.

The trio textures in subsection VII alternate sections in a kind of antiphony between the equally tempered soloists and the microtonal soloists. As the two groups of soloists share the basic characteristics of their material, due to the pairing of the soloists, it is the style of accompaniment and the ends of these trio phrases that help differentiate between them. The equal tempered group is accompanied by through-composed material and finishes its phrases abruptly, after which the resonances of the percussion and the ‘rhythm section’ are left to decay naturally. By contrast the accompaniment of the microtonal group is constructed of ‘mobiles’ of repeating figures. This time it is the accompaniment that is cut off ‘secco’ and the soloists are left sustaining their final note for as long as possible.

Subsection VIII, beginning at rehearsal letter I, is built of sextet textures. The phrases in this subsection are again defined by shadowing, except that in this case the shadow is a stripped down version of the main solo line. Beginning in b.134 the main solo line is taken by the clarinet, with all of its material’s trills and grace notes intact, and the shadow is provided by the alto flute but in a stripped back canon at the unison. At b.140 these roles are reversed with the alto flute taking the decorated main line and the clarinet providing the plain shadow. This process is repeated from rehearsal letter J for the next phrases of this subsection, but with the soprano saxophone and oboe providing the main decorated line and the plain shadow respectively before swapping in b.151.

The apotheotic coda beginning at rehearsal letter M is an emancipation of the double bass and transforms it into a high range soloist. The use of the double bass as a solo instrument in jazz recordings, such as Miles Davies’ *So What* and John Coltrane’s *A Love Supreme*, was something that I wanted to reflect in this piece. This final section, along with some moments of soloistic pizzicato playing and ‘fills’ (most notably b.69, b.84 and b.141), brings the double bass to the foreground of the music.
4.6 Improvisation – written and performed

In his article ‘Thoughts on Improvisation: a Comparative Approach’ (1974) Bruno Nettl argues that composition and improvisation would be better defined as ‘fast’ and ‘slow’ composition. I have always felt that in all composition there is something akin to improvisation and in all improvisation there is something akin to composition and the compositional process of Reflections on Blue very much reinforced this idea. Allowing oneself to be guided by instinct and intuition is a critical creative leap of faith. In this piece I have tried, within an expressive and technical framework that is in any case largely self-imposed, to allow the materials to be shaped by a free and uninhibited approach; much like Paul Klee’s concept of ‘taking a line for a walk’. Klee’s Pedagogical Sketchbook opens with a demonstration of “an active line on a walk, moving freely, without goal. A walk for walk’s sake.” As well as showing deference to the jazz-oriented thoughts expressed by Bill Evans, I crafted the materials for each ‘soloist pair’ in this piece with Klee’s words very much at the forefront of my mind. Within the harmonic and registral confines of the work’s concept I allowed my mind and hand to be guided by instinctively following a perfect ‘platonic form’ for each gesture that I had fixed in my mind’s eye. Redrafting was minimal and in fact for many sections of this piece I resisted the temptation to construct several drafts and instead chose to deploy the materials I had previously designed in various combinations and textures that I felt supported the musical drama or expressive contour of each moment.

In contrast to this ‘written’ improvisation, perhaps better termed ‘slow composition by the author’, subsection X contains a passage of ‘true’ improvisation, or ‘fast composition by the players’, for the flute soloist and the ‘rhythm section’. This part of the piece is perhaps most akin to the modal jazz approach discussed earlier where the player is given a set of materials (a modal scale in the jazz archetype) and a short passage to give the mood and style of the music (the ‘head’ section) and is then allowed free creative reign. In Reflections on Blue the phrases from b.183 to b.191 function in place of the archetypal ‘head’ section and provide a gestural context for both the flute soloist and the rhythm section. Creating a framework for improvisation in generally notated music

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is discussed in greater detail in future chapters but suffice it to say that, in regard to this piece, the location of the improvised section is critical. It is set late in the overall narrative to ensure that the general expressive language of the music is sufficiently internalised by the players in advance. Another factor in the placement of this improvised passage is its proximity to the apotheotic coda. In a sense the improvised nature of subsection X is a ‘taking flight’ of the underlying expressive and psychological inspiration for the main body of this piece before the music lifts away into the double bass solo of the coda.
5. ...but their stillness showed plainly...

5.1 Beginnings

This work was the result of an opportunity to write for the Distractfold Ensemble in May 2017, and their proposed ensemble line-up of clarinet in B♭, violin, viola and cello provided the initial impetus for the work. It struck me that the real strength of this ensemble was the fundamental differences between the lone clarinet and the bowed strings. I wanted to begin by using the bowed strings to define a harmonic landscape made up of two main areas, one rooted in equal temperament and the other in the harmonic series, and then use the clarinet to blend, bend, slide and move between those harmonic elements. My vision for the relationships between the instruments could be summed up thus:

![Figure 5.1: Conceptual sketch of inter-ensemble relationships](image)

**Bells in Knightsbridge**

This initial plan was augmented by my fascination with church bells. At St Paul's Church, Wilton Place in Knightsbridge there is a ring of three bells tuned in E♭, with a tenor (lowest sounding bell) weighing 22cwt. These bells have fallen into disrepair and are currently unringable due to safety concerns. They are tuned to the notes 1, 4 and 8 of a ring of 8 and in these bells I saw potential to develop the harmonic framework of my piece. I assigned each of the strings to a bell:

1(vln)  4(vla)  8(vcl)
Church bells are numbered inversely when compared with degrees of a scale i.e. the lowest bell has the highest number. As there is no tuning data available for these bells beyond that of the strike notes, I decided to base my work on C to allow the lowest range of the cello to define the bottom end of the works tessitura. This process resulted in identifying three important pitches and associated instruments.

<table>
<thead>
<tr>
<th>Bell</th>
<th>1</th>
<th>4</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrument</td>
<td>viola</td>
<td>viola</td>
<td>cello</td>
</tr>
<tr>
<td>Characteristic ‘bell note’</td>
<td>C</td>
<td>G</td>
<td>C</td>
</tr>
</tbody>
</table>

Figure 5.2: Bell and bowed string associations

5.2 Defining the Harmonic Space

As there were no tuning details available for St Paul’s Knightsbridge I turned to a ring of bells whose tuning I know well: St Stephen’s, Rochester Row. These bells were a great inspiration for *Reflections on Blue* and have a very characterful tuning scheme.

<table>
<thead>
<tr>
<th>Bell</th>
<th>8</th>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuning deviation (cents)</td>
<td>♭</td>
<td></td>
<td></td>
<td></td>
<td>♭ (5 cents)</td>
<td></td>
<td># (50 cents)</td>
<td></td>
</tr>
<tr>
<td>Assigned Instrument</td>
<td>cello</td>
<td></td>
<td></td>
<td>viola</td>
<td></td>
<td>violin</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.3: Tuning scheme for the bells of St Stephen’s

The ‘stretched octave’ between bell 8 (lowest pitch) and bell 1 (highest pitch) is very attractive and gives the same kind of qualities I admire so much in the interval of a minor ninth: a restlessness, a weightless yearning and a fragile stability. As in my previous work I exaggerated the flat nature of bell 4 by dropping it further to 20 cents below equal temperament. The three ‘landmarks’ in my developing harmonic space were now defined thus:

<table>
<thead>
<tr>
<th>Bell</th>
<th>1</th>
<th>4</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrument</td>
<td>viola</td>
<td>viola</td>
<td>cello</td>
</tr>
<tr>
<td>Characteristic ‘bell note’</td>
<td>C (+50 cents)</td>
<td>G (-20 cents)</td>
<td>C</td>
</tr>
</tbody>
</table>

Figure 5.4: Combination of St Stephen’s tuning scheme and bowed strings

In turn this lead to the following scordaturas for the violin and viola:
Expanding the harmonic landscape

These ‘bell notes’ were not enough to sustain the musical discourse and would need contextualising and supporting within characterful and identifiable harmonic zones if they were to have the desired structural effect. Fortunately I had designed several chords related to the tuning of St Stephen’s bells during the composition of Reflections on Blue and these sonorities again proved fruitful.

Figure 5.5: Violin scordatura

Figure 5.6: Viola scordatura

Figure 5.7: Bell chord sonorities
There are some important features of these sonorities to consider.

Chord for bell note 1

- The bell note itself (C quarter sharp) is in the middle of the pitch space.
- The whole pitch set is encased by the interval of a minor ninth.
- Other prominent intervals include the minor and major sixth, the major second and the minor seventh.

Chord for bell note 4

- Again the bell note (G 20 cents flat) is not on the bottom of the pitch space, although it is closer to the bottom than in the chord for bell note 1
- This pitch set is again encased within a minor ninth.
- The prominent intervals are similar to the chord for bell note 1 with the addition of a minor second.

Chord for bell note 8

- In this chord the bell note (C) is on the bottom in the lowest register of the cello. From here the pitch can act as a tonic anchor.
- The intervallic focus of this chord is reorganised with the minor ninth at the top of the chord and a minor seventh at the bottom. This time the whole pitch set is encased by a perfect fourth.
- In the sketches for this work this chord is noted as being ‘most restful – very beautiful’ and the spacing of this chord was earmarked for moments of restful serenity.
- It was decided very early in the composition process that the special colour of the low cello C would be saved for the final sections of the piece. The sketches describe a desire to create a ‘shimmering ending’ with ‘wide tremolos in the clarinet and bouncing harmonics in the strings’.

Between them these three chords define the tessitura of the whole work (C2–F6):
Looking back, it is clear that I had a strong sense of the feeling and expressive territory I wanted to explore, especially in the ending of the work, and was carefully designing a harmonic landscape to suit my needs. It is normal, however, for plans to change as feelings within and around the music grow and develop. Allowing oneself to be awake and responsive to the intuitive side of composition is, as we shall see, essential and exciting; one adjusts the original plans to accommodate moments of intuitive inspiration or overcome practical problems the music becomes stronger, more real and more expressive.

5.3 Structural Beginnings

Having defined these three harmonic areas I was convinced that the small-scale harmonic structures, and their expressive implications, were in line with my aims for the piece and its relationship to the ‘big ideas’ of my creative practice:

- Fragile intensity
- Meditative yet concentrated
- Flowing stasis
- Poignant stillness

In terms of large-scale form these three harmonic areas immediately suggested a six-part structure following the change ringing pattern of plain hunt. This is a system of organising the six possible permutations of three individual elements, my three harmonic areas, into a structured group and is given by reading down the left hand column of the following diagram.
Order of harmonic areas | Section
---|---
1,2,3 | a
2,1,3 | b
2,3,1 | c
3,2,1 | d
3,1,2 | e
1,3,2 | f

Figure 5.9: Early six-part structural plan

1= bell note 1  
2= bell note 4  
3= bell note 8

I was drawn towards repeating section ‘a’ at the end of the piece to lend a strong sense of closure to the work and so I initially planned seven sections with varying amounts of each harmonic area explored within each. It was not immediately apparent whether such a structure would satisfy the dramatic aims and needs of the piece as the music developed, and it was also not clear whether a structure of this size could be fitted into the timescale allowed for the project with the Distractfold Ensemble.

As I began to compose the first sub-section (‘1’ of section ‘a’) it became apparent that to explore fully the colours and expressive potential of each harmonic area the subsections would need to be longer than anticipated and the rate of change from one harmonic area to the next would be generally slow and gradual in nature. My seven-part structural idea needed modification.

The opening 123

My first intention in the section was to include only the bell notes themselves by using close, cluster-like, voicings and gradually spreading from these into something more linear and layered:

1 1 1 1  
2 2 2 2  
3 3 3 3  

On reflection this felt contrived and it became clear that this process ‘showed the hand’ of the piece too soon. The revised opening begins with only bell notes 4 and 8 (structural harmonic areas 2 and 3) albeit in altered forms, with bell note 1 only appearing in b.8.
Bell note 4 alterations

- This bell note initially appears as G♯ and not as G 20 cents flat.

Bell note 8 alterations

- The register of this bell note first appears three octaves above its final resting place at the bottom of the cello.

Within these first eight bars the essential role of the clarinet is defined along the following verbal lines.

- Blender, transfer enabler, binder, pre-empter, shadower, augmenter, reinforcer

The clarinet pre-empts the move from G♯ to G 20 cents flat at the end of b.3 in the viola, and facilitates the music pushing up to C quarter sharp with the introduction of the violin in b.8. Similarly, it again widens the pitch space by sliding up to D in b.11. This is a significant moment as this is the first ‘non bell note’ in the piece and it is important to note that it is a pitch taken from bell chord 1 and 8 and not bell chord 4 which will open the next section of the work. The first section ends in bb.13–14 with the clarinet again widening the pitch space of the music by defining the top range of the piece as we hear bell chord 1 in its entirety.

This section now had the right pacing to introduce the right harmonic material and maintain the hushed intensity of which I am so fond. The veiled, fragile poignancy evoked in this opening was artistically very satisfying to achieve. It is something that I had been developing in previous works and would come to define a large part of the expressive power of later pieces. The technical resources detailed above contributed greatly to the expressive effect of this section; there are however some important additional features, both practical and expressive, to note.

Cello

- The C♯ harmonic that begins the work is not available on the violin due to the scordatura.
• Placing it as a high partial on the cello C string lends an air of weightless intensity.

Viola
• Placing the G\(\sharp\) in a very high position on the C string of the viola also serves a duel purpose as it allows for a smooth glissando down to the octave harmonic of the G 20 cents flat and gives the G\(\sharp\) a fragility which is in keeping with the expressive aims of the work.

Clarinet – pitch bending
• The ‘unifying’ role of the clarinet is largely achieved through pitch bending, enabling the player to blend seamlessly between microtones and equally tempered pitches.
• This technique allows new pitches to grow organically out of those already sounding.
• The strings also take up the bending effect as glissandi and this allows for integration of the clarinet into the ensemble at key structural moments. This also means that the blending and shifting of harmonic areas can be spread around the ensemble.

All instruments – vibrato
• This is an expressive resource that I felt had to be carefully considered as it can be used in a variety of ways and the ultimate expressive effect of adding, or taking away, vibrato is largely dependent on context.
• It can be used to add intensity to pitches or subtly alter their colour when layered with different instruments (see rehearsal letters K–L).
• It can be used to highlight a certain part of the texture without necessarily altering the dynamic relationships between the instruments (bb.56–62).
• Very wide vibrato can obscure the true identity of a pitch and make it more or less ‘in focus’ (b.68.)
• It can also be used as part of ‘passing’ a pitch from one instrument to the other, with bb.10–11 and b.22 being notable examples.
By this point in the composition process it was clear that these technical resources and expressive features would form the backbone of the work.

Ending 123

The voicing of bell chord 8 displayed earlier was so balanced and attractive that I turned my attention to the ending of the work as soon as the draft of the first section was complete. There are several key features of this final section to consider.

• The lowest C of the cello is the pitch focus of the chord and only appears in the ending sections of the piece.

• There is a focus on achieving multiple colours of only three main pitches, C, E, F. These appear both as equally tempered notes and microtonal products of multiple harmonic series. Multiple colourations of the same essential pitch form an ever-increasing part of my harmonic and textural language and to thoroughly explore the possibilities in this piece I constructed charts for each of the pitches (see below where deviations from equal temperament are noted in cents).

• Rehearsal letters H–K introduce a melodic fragment in the clarinet. This new material begins to lend an apotheotic quality to the ending sections of the piece.

• From rehearsal letter K to the end of the work there is an apparent ‘settling’ onto the note C. This pitch is seen in many different guises (natural notes, natural harmonics, with and without vibrato) in many registers, but eventually the lowest C possible returns in the cello. This time, however, the pitch is plucked. This previously unseen technique enhances the apotheosis of the ending by maintaining the delicate balance between finality (ending on the ‘tonic’ of C) and eternity.

• The ‘bouncing’ harmonics referred to in the sketches quoted above first appear around rehearsal letter H. I first came across this technique in Bird Learning to Fly for solo cello by Christian Mason and was immediately captivated by the fragile, yet intense, fluttering sound.
Figure 5.10: Multiple colours of C

Figure 5.11: Multiple colours of E

Figure 5.12: Multiple colours of F
Overall, the fragile intensity of the harmonics and the apothetic function of the clarinet melody and the pizzicato technique, combined with a narrowing of pitch focus, deliver the right balance of a form that both ‘closes the circle’ and also hints at a continuation of unexplored possibilities.

5.4 Structural Modifications

The length of this ending section (from rehearsal letter H to the end of the piece) had grown so much, and my discoveries regarding the slow rate of harmonic change demanded by the first section, indicated that it would not be possible to complete my original seven-part formal plan. Instead I settled on a four-part structure:

<table>
<thead>
<tr>
<th>Order of Harmonic Areas (determined by ‘plain hunt’ principle)</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>123</td>
<td>a</td>
</tr>
<tr>
<td>213</td>
<td>b</td>
</tr>
<tr>
<td>231</td>
<td>c</td>
</tr>
<tr>
<td>123</td>
<td>d</td>
</tr>
</tbody>
</table>

Figure 5.13: Modified structural plan

Sections ‘b’ and ‘c’ would focus on exploring the colours of bell chord 4 (harmonic area 2 in the structural diagram above) and the final form and structural proportions of the work emerged from these decisions:

<table>
<thead>
<tr>
<th>Section</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harmonic order</td>
<td>123</td>
<td>213</td>
<td>231</td>
<td>123</td>
</tr>
<tr>
<td>Internal structure</td>
<td>Opening 123</td>
<td>2 of 213</td>
<td>1+3 of 213</td>
<td>2 of 231</td>
</tr>
<tr>
<td>Rehearsal Letters</td>
<td>Start-A A-E E-F F-G G-H H-End</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length (in bars)</td>
<td>bb.0–15 (15) bb.16–39 (23) bb.40–49 (9) bb.50–61 (11) bb.62–79 (7) bb.70–133 (63)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.14: Final formal map

Sections ‘b’ and ‘c’

The introduction of the first pitch of bell chord 4 (B♭) in the cello, between rehearsal letters A and B, gives insight into the most important features of these sections, and indeed the whole fabric of this music.
• The infiltration of pitches from bell chord 4 is slow and their takeover of the harmonic landscape is gradual in nature; only at rehearsal letter C are there no longer any pitches from bell chords 1 or 8 in the underlying harmonies.

• There is a gradual process of colouration of the B♭ in the cello, beginning with a mute, progressing to a 'sul tasto' playing position without muting and gradually moving towards a ‘molto pont’ bowing position. Additionally, the amount of pressure applied to the bow of the cello is varied in order to activate the harmonic series of the B♭ and act as a launching pad for the clarinet entry at rehearsal letter B. This technique is seen throughout this passage in the cello and bleeds over into the violin at b.42, again to act as a launching pad for the clarinet.

• Since My lungs taste the air of Time Blown past falling sands... I have been fascinated by the role of listening within ensemble music. In this piece there are several moments where the success of the gesture relies intimately on the players listening very closely to what is going on around them. Examples include the way in which the clarinet is required to ‘match the pitch’ of other instruments: see, for example, b.15, b.25, b.38. The matching of dynamics as pitches move around the ensemble is also an important part of the listening element of this music in, for example, the viola at rehearsal letter A and the violin at b.19.

A special feature of bell chord 4 is explored between rehearsal marks F and G. A configuration of this chord can be achieved whereby the chords of C minor (second inversion) and Ab major (root position) are heard above a drone of F♯.

![Figure 5.15: ‘Magic’ apothecary harmony](image)

This moment is ethereal; diatonically settled yet tonally unclear and expresses a balance between beauty, fragility, stability and disquiet.
5.5 Adaptation for String Quartet

In 2018 I had the opportunity to workshop and record a piece with the Manon Quartet. This opportunity came at short notice and so there was not time to compose a new piece for the quartet. At the time ...but their stillness showed plainly... was my most recent work and so I decided to make a string quartet version for the recording project.

Technical and Conceptual Aspects

Initially this seemed straightforward as there are no pitches in the original clarinet part that lie outside the range of the violin, so the clarinet material could simply be reassigned to the first violin of the string quartet. On reflection I felt that this was an overly simplistic solution, especially when considering one of the key points of the conception of the original piece. The clarinet is conceived as a 'blender', a 'transitional force' between the harmonic worlds of equal temperament and that of the 'bell pitches' and natural overtones, thus setting up a quartet divided into groupings of one and three. This conceptual and textural premise is supported in the original version of this piece by the sonic contrast between the clarinet and the bowed strings so the material that I composed for the clarinet was permeated with this basic conceptual underpinning. In a string quartet the timbral difference between the instruments is removed from the equation and so the basic conceptual groupings of one against three would need to be adjusted to create a true work for string quartet. In order to facilitate this textural and conceptual change I decided to take the clarinet and violin parts from the original and consider them together. The materials contained within those two parts could then be mixed, swapped, shared and blended to create the two violin parts of the string quartet version.

Swapping – Long Range and Short Range, Crossfading and Passing

At the opening of the string quartet version the material of the clarinet and violin from the original piece is distributed as follows:
Violin 1 = clarinet
Violin 2 = violin

At b.19 the material begins to swap and at rehearsal letter B the 'long range swap' has been facilitated as follows.

Violin 1 = violin
Violin 2 = clarinet

This swapping of material, after rests in the music, is also facilitated at 'short range', with b.26 being a notable example, and is the basic mechanism for weaving and integrating the first violin into the piece.

The blending of the clarinet and violin material, to facilitate swapping without rests, is seen in b.41, b.91 and in an extended passage at bb.103-104 using a tremolo figure to blend the two parts together.

Expressive Ramifications

In *...to imprison the wind* I created a new part out of two pre-existing parts and found ways to accommodate the dramatic and structural changes that this required. In some ways *...but their stillness showed plainly*... represented a simpler challenge, as the number of parts was not changing. In another sense this was a subtler process because of the timbral differences between the instrument being introduced and its relationship to rest of the ensemble. In both *...to imprison the wind* and *Refracted Meditations III* the instrument being introduced (the guitar) had essentially the same plucked, or basically percussive and decaying, sonic profile as the instrument(s) being replaced (piano and harp). The timbral differences between the violin and the clarinet, and the fact that the extra violin has the same timbral quality as the rest of the ensemble it is being introduced to are clearly important considerations from a technical standpoint. Expressively speaking the contour of the piece and the parts can remain the same, but it is the integration, weaving and blending of these parts that will exploit the unique and
perfect balance of the string quartet and create a truly satisfying and successful work for that ensemble.
6. At the edge of his dreams...

6.1 Beginnings

This work was commissioned by Corentin Chassard for the Thornham Summer Festival 2017 to be performed in St Mary Magdalene, Thornham Magna. After a little research I found that this church has a ring of six bells in G. I received some recordings of the bells from the festival and on discovering that they were nearly a quartertone sharp I realised I had the starting point for the piece.

The initial structural and expressive concept of the piece was to blend and migrate between the tuning of the bells and equal temperament, with the bells acting as a trigger for the other instruments. This ‘triggering’ would be especially effective in the strings and clarinet as they would be able to adjust their pitch to match the tuning of a ‘bell note’ and then glissando or bend back into equal temperament thus:

‘Bell Tuning’ ———> Equal Temperament

![Diagram showing the concept of ‘Bell Tuning’ and ‘Equal Temperament’]

‘Playing’ the bells

This concept relies on the resonance of the bells sustaining long enough for a player to ‘tune’ to it. It may seem counterintuitive to state that in traditional English change ringing this is not the case. As the bells are swung in a full circle from mouth-upwards to mouth-upwards the clapper comes to rest against the side of the bell and dampens its resonance. The lingering resonance of the bells was essential for the technical practicalities of my initial concept and so I decided that the bells should not be rung full circle as normal, but rather simply ‘chimed’ with the mouth of the bell always facing
downwards. In this position the clapper does not rest against the bell after striking so the resonances are left to decay naturally. The rhythmic effect of chiming, rather than ‘ringing’, the bells is that they are slow to strike and are harder to control. Consequently the rhythmic profile of the bells is kept sparse and simple throughout the work. In fact when coordinating the bells with the rest of the ensemble the notated rhythms of the bells in the score should be taken as an approximation and the flow of the metered music should halt as little as possible to accommodate the delay between cueing the bells and hearing their sound. This hazy, delayed rhythmic effect is perhaps best seen in the final section of the work (from rehearsal letter G) where bells 3 and 5 are first in dialogue with, and then create a backdrop to, a cello solo which develops melodic phrases based around those bell pitches. As the cello slides between equal temperament and the microtonal bell world the two pitch polarities of the work are blended and amalgamated to create a hazy hinterland.

### 6.2 Marco-structure

<table>
<thead>
<tr>
<th>Section Number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td>Flowing Time</td>
<td>Halting Time</td>
<td>Flowing Time</td>
<td>Halting Time</td>
<td>Flowing Time (with interruption)</td>
<td>Halting Time</td>
<td>Flowing Time</td>
</tr>
<tr>
<td><strong>Duration</strong></td>
<td>8 bars (c.53&quot;)</td>
<td>c.42&quot;</td>
<td>14 bars (c.1'18&quot;)</td>
<td>c.28&quot;</td>
<td>26 bars (c.2'13&quot;) [10 bars (c.59&quot;)+ 1 bar halting interruption (c.9&quot;) + 15 bars (c.1'05&quot;)]</td>
<td>c.1'26&quot;</td>
<td>29 bars (c.2'45&quot;)</td>
</tr>
<tr>
<td><strong>Features</strong></td>
<td>Bell ‘trigger’</td>
<td>Pitch blending between the bells and equal temperament. Piano echo of the bells.</td>
<td>Duration controlled by piano decay. Mobiles and fragments in clarinet, violin and accordion.</td>
<td>Introduction of melodic elements with drones and ‘projections’. Glissandi ad lib. in cello to blend between the bells and equal temperament.</td>
<td>‘Projections’ in strings as natural harmonics. Drone in violin. Projections in cello and piano.</td>
<td>Duration controlled by guitar decay.</td>
<td>Dialogue between bells and cello blending and passing between the two tuning worlds.</td>
</tr>
</tbody>
</table>

*Figure 6.2: Structural map*
Proportions and the concepts of ‘flowing’ and ‘halting’ time

The relationship between the bells and piano defined the temporality of the work. In the opening section this relationship is expressed most purely as follows:

- The bells trigger the music by chiming briskly down the scale
- The cello finds its note amongst the bells and gradually glissandos back to an equally tempered pitch that is passed to the accordion.
- The piano eventually echoes the bells’ gesture and triggers its own phrase that in turn pushes back to the ‘bell pitch’ world.

In this way the pitches of the bells (G, A, B, C, D, E) are the focus of the opening section of the work but they come in two forms, one at ‘bell pitch’ and one equally tempered with the piano ghosting the trigger of the bells.

After the first chime of the bells their sound decays naturally in an unmeasured way. On top of that decay, however, time is flowing in a measured way with both time signature and metronome mark. The dichotomy of these two types of time and the ‘ghosting’ of the bells in the piano prompted the decision to interrupt the flow of the music by allowing the decay duration of the piano to define the length of some sections of the music and thus to structurally articulate the opposing concepts of ‘flowing’ and ‘halting’ time.

The success of such a structural principle relies heavily on the proportional relationships between the sections. These were developed intuitively over the course of composing the work to create the right sense of ‘static motion’ and a balance between suspended animation and forward momentum:

- The ‘flowing’, or ‘metered’, time sections grow in a non-linear way over the course of the work:
  8 bars → 14 → 26 (10 + 15) → 29
- The ‘halting time’ sections appear to do the opposite, only to wrong foot that process between rehearsal letters F and G:
Overall the structural is in favour of the ‘flowing’ time materials. The margin is narrow however and as such there is a delicate balance between the music moving on and being ‘stuck’. A fine line is being trodden to create the overall expressive effect of an actively static dream-like soundscape.

**6.3 Small-scale procedures and techniques**

**Harmonic areas in ‘flowing’ and ‘halting’ time**

Generally speaking sections 1, 3, 5 and 7 (the ‘flowing time’ sections) are centred on specific harmonies or sonorities. For example, section 1 is defined by the six ‘bell’ pitches and their piano ‘ghost’, whereas section 2 begins focused around the pitch A and then manoeuvres to a point of tension where the sonority of G♯ against G defines the harmonic landscape. During these ‘flowing’ sections the movement from one harmonic area to another is almost exclusively a smooth and organic process. Drones contribute smoothness to the surface of the music and lend clarity and focus to each harmonic area. Their function as harmonic identity markers is becoming more and more important in my music. They allow the music to define specific harmonic areas and colours without the need to articulate an overt harmonic rhythm. In this way they contribute greatly to the feelings of fragile intensity I so greatly value.

The sections of ‘halting’ time are defined in a different way. Although they too have central harmonic identities, the movement from one sonority to the next is not a smooth blending; rather the music moves by juxtaposition. When a chord decays to silence it is either repeated or the music simply moves directly to the next harmony. Because these sections interrupt the flow of musical time and, internally, do not move in a linked, developmental way, the ‘halting’ sections lend the music a feeling of ‘active stasis’: they are stuck and are, on a deep level, defined by isolated harmonic events.

The below table gives the harmonic scheme for the whole work:
<table>
<thead>
<tr>
<th>Section</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harmonic Centre</td>
<td>Bell pitches and their piano 'ghost':</td>
<td></td>
<td>A moving to G♯ and then G♯+G</td>
<td></td>
<td></td>
<td></td>
<td>Drones in background foreground concerned with A and C from bells being explored by Vcl. Piano states final chordal harmony:</td>
</tr>
<tr>
<td>Drones</td>
<td>B (natural and quarter sharp)</td>
<td>As above</td>
<td>G (natural and quarter sharp to 'ghost' the bells)</td>
<td>Chordal drone, moving onto A. Following interruption drone moves to high C</td>
<td>F♯ and G</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 6.3: Harmonic scheme

Mobiles and ad lib. Fragments

The feeling of 'active stasis' cultivated by the flexible, decay-controlled durations of the 'halting' time sections is augmented by the use of flexible fragments and sustained pitches over which the performers have varying degrees of control. By allowing the performers a carefully planned amount of control over such features as dynamic, vibrato, pitch and small rhythmic variations the fragility of the musical texture is enhanced and the contrast between the static, decaying piano (or guitar) and the harmonically ‘stuck’ yet internally active fragments lends the music its ‘halting’ character.

In section 2, the first 'halting' time section, the clarinet and violin begin with sustained pitches whilst the accordion holds a drone and varies a short rhythmic fragment. Small glissandi and variations in vibrato and dynamic are controlled by the players of the
clarinet and violin while the chordal backdrop decays in the piano. The psychological impact of a section such as this from a performer’s perspective is an increase in the importance of listening and communication within the ensemble. The players must continue with their self-determined variations until the piano cues the next ‘bar’. Small overhangs of material are permissible but ‘holes’ left by over-anticipation of the piano cue would undermine the overall effect of the texture. In one of the later ‘halting’ time sections players are instructed to start playing after another member of the ensemble has begun their fragment, thus heightening further the importance of ensemble communication and contributing to the ‘actively static’ feeling of these sections and in fact the work as a whole.

‘Projections’ in strings

The already mentioned ‘ghosting’ of the bells by the piano is, as we have seen, harmonically important. The principle of ‘ghosting’ also permeates other layers of the music as rhythmically and gesturally the instruments trigger their own ‘ghosts’. A notable example of this process can be seen in section 3 as the clarinet, violin and accordion ‘ghost’ each other by means of Klangfarbenmelodie to evolve a melodic phrase that is the foreground focus of the section:

![Figure 6.4: Emerging melody](image)

Section 5 also displays another kind of ‘ghosting’ as the bowed strings pick out pitches from either the accordion’s chordal drone or the melodic elements seen in the piano as natural harmonics. These high ‘projections’ are normally stated as the fifth or seventh partials of an open string and are thus fourteen and thirty-one cents flat of equal temperament respectively. These tuning discrepancies mirror the differences between the ‘bell’ pitches and the piano ‘ghost’ in the opening section but appear in a register that is inaccessible to the bells. These ‘projections’ are ethereal in sound quality but intense in dynamic profile and have a ‘ghostly’ sparkle as they project upwards from the drone and melodic elements.
Use of the guitar

The initial structural idea of the work, the triggering of the ensemble by the bells, is reproduced as a ‘ghost’ by the relationship between the piano and the rest of the ensemble in the ‘halting’ time sections 2 and 4. In this sense one of the functions of the piano is to act as a ‘ghost’ of the bells. In section 6 a third step is added to this process as the offstage guitar acts as a ‘ghost’ of the piano’s ‘trigger’ from sections 2 and 4.

![Diagram of ghosts and triggers](Figure 6.5)

Because of the guitar's shorter decay period each chord of section 6 is repeated twice and there are also more of them: a total of five compared to the two harmonies used in section 2. In section 2 the 'halting time' section begins with a statement of the bell pitches in the piano. The bells trigger section 4 and the cello holds the lowest bell pitch throughout the section. The harmonies used in section 6 are also the furthest removed from the 'bell' pitches of any of the 'halting' time sections. In contrast the 'ad lib.' fragments of section 6 are the most static of any of the 'halting' time sections. The contradiction here is that, whilst the harmony is more varied and rich, the mobile fragments are more static than either section 2 or 4; this dichotomy between stasis and activity is a perfect microcosm of the balance of flowing and halting of the work as a whole.
7. Like Trees in November

7.1 Beginnings

The family of decaying instruments

As a guitarist I have been endlessly fascinated by the decaying resonance of the instrument and the infinite variety of timbral colour achievable by varying the strength and position of attack and the ratio of nail and flesh used by the plucking hand. The piano shares many features with the guitar and its essentially percussive mechanism. The decaying nature of its sounds are directly analogous, but the piano has an advantage over the guitar in creating legato phrasing and connection between sounds by way of the sustain pedal. Although a certain amount of timbral variation is achievable by a highly skilled pianist by use of the una corda pedal and the weight and style of attack on the keys I have always felt that the piano lacked the colouristic variety of the guitar. One of the main impulses behind this piece was an attempt to find ways to expand or enhance the timbral palette of the piano as I saw it.

Explorative and expressive territory

As with much of my music I wanted to explore the resonance of the instrument and to experiment with many differing ways of touching the keys to lend textural and timbral variety to the music. I was also keen to incorporate some pedal techniques that I felt were underused or had potential to enhance the expressivity of the music.

<table>
<thead>
<tr>
<th>Keyboard modes of attack</th>
<th>Movement(s) used</th>
<th>Pedal techniques</th>
<th>Movement(s) used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boxed notes for emphasis</td>
<td>I, III</td>
<td>'una corda' pedal used as a mute to control decay length</td>
<td>I</td>
</tr>
<tr>
<td>Natural harmonics</td>
<td>I, V</td>
<td>'Catching' notes, harmonics or resonance with the sustain pedal</td>
<td>III, V</td>
</tr>
<tr>
<td>Sympathetic resonance (by means of prepared silent notes)</td>
<td>III, V</td>
<td>'Crescendo' and 'diminuendo' of the sustain pedal</td>
<td>III, V</td>
</tr>
<tr>
<td>Silently retaining notes already resonating to preserve their length</td>
<td>III</td>
<td>Rhythmic pulsing of decaying harmonies created by the sustain pedal</td>
<td>II, IV</td>
</tr>
</tbody>
</table>

Figure 7.1: Keyboard and pedal explorations
Alongside these techniques there are some general compositional trends that aid the music’s evocation of its expressive aims. The use of register to activate specific overtones of the harmonic series is particularly important. It is also used to either intensify or dilute the tension and dissonance of intervals such as minor seconds, major sevenths and minor ninths, or to expand or contract the decay length of a certain pitch. Achieving registral and intervallic balance in harmonic objects is essential and adjusting the register of one or more notes within a chord is so often the key to the success or failure of that harmony, both as an individual chord and as part of a harmonic progression. In terms of harmonic progression the intervallic spacing of each chord is critical in creating the patterns of tension and release that are critical to my musical discourse.

Second, my interest in durations controlled by decay lengths is used extensively in this piece. Many sections of movements I, III and V make use of this technique, to govern either the progress of the music from one note to the next or the length and pacing of phrases on a gesture-to-gesture level. Some of the uses of this technique are purely practical and allow the every pitch of a chord or gesture to speak in balance but mostly I have tried to weave the decaying resonance of the piano’s nature into the very fabric of the music. These ideas of resonance-controlled duration are balanced in this piece against a more traditional rhythmic language based on pulse and metre. At certain points these two modes of rhythmic organisation exist in juxtaposition, such as in movement III, or in a kind of synthesis, as in movement I and II, or with one eclipsing the other, such as movement IV.

All of these physical and compositional resources were designed to bring out the elusive melancholy of the music that I had in mind and also to reflect the sentiment of the chapter in Richard Adams’s Watership Down that gave the work its title. In this chapter the travelling rabbits come to a new warren and Fiver, a small prescient rabbit, senses that there is sadness upon it, a deep and burdening melancholy that is intangible to outsiders.
7.2 Large Scale Form and Structure

<table>
<thead>
<tr>
<th>Movement</th>
<th>I – ‘Theme’</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal structure</td>
<td>‘A’ centred harmony</td>
<td>‘G♯’ centred harmony</td>
<td>Three phrases in homophonic rhythm</td>
</tr>
<tr>
<td>Rhythmic Structure (decay or pulse-driven)</td>
<td>Decay</td>
<td>Pulse</td>
<td>Mixture</td>
</tr>
<tr>
<td>Features developed or varied</td>
<td>‘Theme’</td>
<td>Pedal and pulsation</td>
<td>Decay-driven phrase lengths and isorhythmic patterning</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Movement</th>
<th>IV</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal structure</td>
<td>Cycling of block chords</td>
<td>Resonance ‘ghost’</td>
</tr>
<tr>
<td>Rhythmic Structure (decay or pulse-driven)</td>
<td>Pulse</td>
<td>Mixture</td>
</tr>
<tr>
<td>Features developed or varied</td>
<td>Pedal and pulsation</td>
<td>Natural harmonics and overtone resonance</td>
</tr>
</tbody>
</table>

Figure 7.2: Formal diagram

7.3 Small Scale Gestures and Techniques: Movement I – ‘Theme’

Very often in traditional gestures and compositional technique the music increases in volume when it increases in speed. This is a very effective way of creating climax and adding drama to the musical discourse. With decay-controlled rhythmic duration the opposite relationship between volume and rapidity of iteration is inevitable: as the music crescendos the notes get longer as they will decay more slowly and vice-versa. This contradicts one of the basic expressive gestures of Western music and promotes the ‘energyless’ intensity of which I am so fond. It also delivers non-climax-oriented phrasing and structure in the music. This broadening of the music’s surface during crescendo and evaporation when under diminuendo is one of the key expressive features of the first movement and indeed of the whole piece.
Pitch Focus and Harmonic Progression

The ‘boxed note emphasis’ technique is used throughout this movement to highlight the central pitch A as it moves through the registers (A4, A5, A3) in the first half of the movement and is used to highlight the G♯ centred second half in the same way (G♯5, G♯3, G♯4). This is a simple way to show the balance of a chord or gesture without the need for many conventional symbols. If the note to be emphasised is one of the internal notes in a chord it can be difficult to show this to the performer without excess use of symbols or text.

7.4 Small Scale Gestures and Techniques: Movements II and IV – ‘Pedal and Pulse Development’

On a basic pianistic level it is the action of the player’s hands on the keys that create the rhythm and articulate the pulse of a piece of music while the pedal creates and controls the amount of resonance employed at any given moment. These movements go some way towards reversing those roles, putting the rhythmic surface of the music firmly in the feet of the player. In Movement II the sustain pedal is used to create a continuous rhythmic pulsing whilst the hands play a series of chords in a homophonic rhythm. This idea is developed still further in movement IV where the rhythmic variety and pulse based nature of the rhythmic organisation is controlled entirely by the sustain pedal. In terms of register these movements have the least variety and sit firmly in the middle of the keyboard. This provided the optimum resonance to allow the pedal pulsing to come to the foreground of the music and, on another level, ensured that what ‘keyboard action’ there is in movements II and IV does not distract the listener from the ghostly rhythmic pulsing inside the chords by making wide leaps or disjunct gestures.

A story of balance between the decay-driven durational rhythmic language and a pulse-based organisation is played out across these two movements. In movement II the decay duration of the last chord of every line decides the ultimate length of each phrase. In contrast to this it is only the final chord of movement IV that is subject to a decay-controlled pacing. In this way movement IV is the most pure expression of the pulse
controlled rhythmic approach in the whole piece even though the physical means by which that pulse is established and maintained is the opposite to what is expected.

7.5 Small Scale Gestures and Techniques: Movement III – ‘Decay-driven Phrase Length and Pacing’

**Shimmering, Shifting Rhythmic Patterns**

The outer sections of this movement explore arpeggio patterns that expand and contract across the registers of the piano as the tension and drama of the music ebbs and flows. Rhythmically speaking these sections employ a shifting technique whereby a pattern containing a certain number of notes is placed in a rhythmic framework containing a different number of units. The first pattern contains four pitches and is initially set in a rhythm that divides a quaver pulse into four parts:

![Figure 7.3: First four-note cell in rhythmic context](image)

The next four-note pattern is placed in a rhythmic context that divides the same pulse into five parts:

![Figure 7.4: Second four-note cell in rhythmic context](image)

This pitch and rhythm combination has a periodicity of ratio 5:4: the pitch pattern repeats five times and the rhythmic unit it is placed in repeats four times before the start of the two patterns coincide. Next comes a shift to a periodicity ratio of 5:6: i.e. a pattern of six notes set in the same quintuplet rhythmic division goes five times round
the set of six pitches, and six times round the set of five rhythmic iterations, before the start of the patterns coincide. Similarly at rehearsal letter A the same process occurs, this time starting with a pattern of three pitch events and three rhythmic events. Essentially both of these phrases undertake an accelerando of the surface texture and heighten the drama as each phrase progresses. Alongside this rhythmic process there is a general registral widening as each phrase progresses. Although this adds a dramatic physical virtuosity to the performance, the widening of an interval from, for example, a minor second to a minor ninth and then to a compound minor ninth has the effect of diluting its dissonance and tension-creating properties. The outer sections of this movement hold these expressive concerns and techniques in a delicate balance to create a shimmering texture with an ever-changing, ultimately evaporating surface.

At rehearsal letter B the ‘boxed note emphasis’ technique from the first movement returns. Here the issue at hand is the pacing of short phrases using the decay period of the boxed A note as a guide to the lengths of each gesture. The performer defines the relative lengths of each individual note or chord within each phrase or gesture by following a general principle of visual spacing on the page, a primitive time-space notation. Expressively, both of these juxtaposed materials reach for a feeling of weightlessness but approach it from differing durational principles. The rhythmic shifting of the outer sections subverts any attachment to an overt downbeat and sense of time signature whilst allowing an engagement with a pulse-based system of rhythmic organisation. In contrast to this the middle section uses the decay-driven principles first seen in movement I to evoke a fragile yet melodic melancholy.

7.6 Small Scale Gestures and Techniques: Movement V – ‘Overtones, Natural Harmonics and Sympathetic Resonance’

The opening of this movement focuses on the resonance that is activated when a key is struck and attempts to retain this resonance without necessarily sustaining the C#2 pitch that activated the resonance. The main thread of the opening phrases focuses on differing colourations of C# as it moves through the registers from the ‘ghost activator’ C#2 to be transformed eventually into C#6 as a natural overtone of the fundamental D2. C#6 is the fifteenth partial of D2 and as such sounds twelve cents flat of equal
temperament. As the music progresses the relationship between this overtone and the keyboard’s equally tempered C♯6 forms the basis of a melody that begins to emerge from rehearsal letter A. This expands the harmonic content of the music and makes use of many other natural harmonics.

Quite often natural overtones bloom in sound slightly after their inception. In the middle sections of the movement, from rehearsal letter B, this feature is exploited with a succession of short pauses to allow the harmonics time to speak fully. These pauses, and the ‘un-pianistic’ dynamic shape formed by the crescendo of a sustained note, lend the melody a slightly halting feel and enhance its sense of broken lyricism.

In the final section of the work the idea of a ‘broken melody’ is expanded, as the threads that hold the melodic lines together are teased further and further apart in a texture made up of single pitches picked out over four silently prepared pitches. Each of the single pitches that make up the pointillistic melody of the upper voice produces a cloud of resonance by activating various overtones of the four silently prepared pitches. These overtones colour the equal temperament of the strike notes played on the keyboard lending this final section an evocative, hazy and ultimately distant beauty.

<table>
<thead>
<tr>
<th>Prepared Pitch</th>
<th>Strike Notes (as overtones)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C5</td>
</tr>
<tr>
<td></td>
<td>Partial Cent Deviation</td>
</tr>
<tr>
<td>D3</td>
<td>7</td>
</tr>
<tr>
<td>A2</td>
<td>6</td>
</tr>
<tr>
<td>G2</td>
<td>6</td>
</tr>
<tr>
<td>D2</td>
<td>14</td>
</tr>
</tbody>
</table>

Figure 7.5: Overtones of silently prepared notes

7.7 Refracted Meditations III - Adaptation to the Guitar

In early 2018 I was asked at very short notice to play one of my ‘new’ compositions for guitar in a recital. I had not composed for the guitar as a solo instrument since 2011 and so I decided to arrange the first movement of Like Trees in November as a short guitar solo.
The resonance of open strings has a different feel and resonating colour from that of fretted notes on the guitar. In music primarily concerned with resonance this is an important practical consideration, as all notes on the piano are ‘open strings’. To create this open-string resonance on the opening (written) A4 a capo is placed at fret II of the fingerboard. In the second half of the movement several open strings are needed, as well as natural harmonics with the open strings as fundamentals, and so this capo is removed at the end of the first page. On the third system of the second page in the piano version a low G3 (written pitch) is sustained below a high chord and two repeating cells. In the guitar’s standard tuning written G3 is a fretted note and it is not possible to sustain it whilst reaching the higher chord. To avoid this problem I tuned the fifth string down a tone to G3 so that this pitch would resonate and sustain as an open string. It is a curious rule of thumb in guitar composition that one has to be very careful with thick textures: generally speaking the thickness of the texture is inversely proportional to the amount of resonance and legato sustain. The three layers of the bar in question seemed to detract from the resonance of the moment and so for the guitar version I condensed them to two layers by removing the top line and assigning its pitch to the rhythm of the second layer of the texture in natural harmonics.

Arranging or orchestrating one’s own works gives a new perspective on the nature of musical material. It serves as a great reminder of the close relationship that must exist between the features of the material and the natural strengths and weaknesses of the instrument being written for. The lack of a sustain pedal and the shorter string lengths of the guitar make for shorter decay times and less overall resonance. This has the impact of compressing the music of this piece both rhythmically and gesturally. To compensate for the compression of the material I widened the timbral palette of the music to incorporate the muted sound of guitar ‘pizzicato’ technique on both normal notes and natural harmonics and the progressive muting or revealing of harmonics through my ‘fake-pizzicato’ technique whereby the plucking hand is either positioned slightly off the node of the desired harmonic and progressively moved on to the node or vice-versa.
8. ...on plain air...

8.1 Beginnings

Conceptual inspirations

The main conceptual concerns of this piece began to solidify after attending a rehearsal of the Improviso ensemble, listening to and watching some of their performances. The strength of their ensemble communication and the free-flowing nature of their improvisations, particularly using divisions on ground basses, fascinated me, as did the balance of sound and tuning between the instruments.

It became apparent that the ensemble was very skilled at creating an organic flow of upbeat and downbeat during improvisational passages. The harmonic rhythm of the bass lines clearly assisted this process and helped to articulate the flow of upbeat to downbeat, but I wondered if it would be possible to create a similarly improvised feeling of upbeat and downbeat in the much slower-moving harmonic world my music tends to occupy. I decided to try and explore the nature of this, and other, improvisatory passages in the following ways:

- Creating a scenario whereby an improvised upbeat can be followed by a composed downbeat.
- A composed upbeat leading to an improvised downbeat.
- Improvisatory gestures set against drones.

On a smaller scale I wanted to try and find ways to expand the level of communication between the players that I experienced when attending rehearsals. In my other works this has manifested as passages that require players to match their tuning to non-equally tempered pitches and I wanted to build on this level of aural ensemble interaction.

The relationship between the instruments in the ensemble's traditional repertoire also provided some of the inspiration for the piece. I wanted to manipulate the traditional
roles and hierarchy of the ensemble, especially when performing ‘grounds’, where the
cello and theorbo always held the ground bass line and provided the harmonic context,
whilst the melodic divisions and improvisations were given over to the higher melody
instruments. I was determined that the cello and theorbo would play more than
supporting roles in my piece and would at various points occupy the foreground of the
texture, taking the lead in some passages of improvisation.

General Trends

Aside from the inspirations and related aims stated above a number of overriding
trends and expressive concerns emerged during the compositional process:

• A desire to structurally activate the theorbo by the gradual widening of its range
as the music progresses towards rehearsal letters F and G.
• A continued exploration of the apotheosis ending, a feature common to much of
my music, by re-examining a particular harmony from ...but their stillness showed
plainly... and placing it into new rhythmic, gestural and registral contexts.
### 8.2 Large-scale form and structural relationships

<table>
<thead>
<tr>
<th>Large Section</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rehearsal Letters</td>
<td>Start–E</td>
<td>E–G</td>
<td>G–N</td>
<td>N–End</td>
</tr>
<tr>
<td>Length (bars)</td>
<td>24</td>
<td>22 (inc. repeats)</td>
<td>21</td>
<td>15</td>
</tr>
<tr>
<td>Subsections</td>
<td>I(b.1), II(bb.2–10), III(bb.11–22), IV(bb.23+24)</td>
<td>V(bb.25–31), VI(bb.32–36)</td>
<td>VII(b.37), VIII(bb.38–40), IX(b.41), X(bb.42–51), XI(bb.52–57)</td>
<td>XII(bb.58–68), XIII(bb.69–72)</td>
</tr>
</tbody>
</table>

**Contents**
- Linear introduction
- Two ‘upbeat/downbeat’ passages against drones
- Vocal exploration
- First instances of movement from horizontal towards vertical relationships between instruments
- Theorbo occupies the foreground of the texture with a five chord cycle
- Textural chaconne
- Two kinds of time- ‘decaying time’ and ‘metred time’
- Exploration of equally tempered and natural harmonic drones
- Theorbo cadenza
- Pulsing, apothetheic coda
- Special ‘apotheosis’ harmony
- Ornamental theorbo gestures

**Improvisatory elements**
- Pacing of introduction
- Recorder creating upbeat to rehearsal letter B
- Cello creates upbeat to letter D
- Ordering of pitches at letter D
- Supporting improvisatory fragments in upbeat creation phrases
- Pacing and balance in textural chaconne
- Addition of theorbo bass notes in textural chaconne
- Many ‘ad lib.’ elements in ‘decaying time’ sections – e.g. vibrato, varied repetitions, dynamic swells
- Exact pacing of theorbo gestures
- Exact pacing of strings and recorder during ‘decaying time’ sections
- Elements of ensemble tuning
- Dynamic swelling
- Pacing of changes of bow positions

---

**Figure 8.1: Structural map**

Above is a diagram of the main structural elements of the piece. The number of bars does not wholly indicate the relative lengths of the sections, or indeed the subsections contained therein: the improvisatory nature of some of the compositional materials means that to obtain a true picture of the structural proportions of the work one must compare the lengths of the main sections in minutes and seconds.
<table>
<thead>
<tr>
<th>Section</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length in Bars</td>
<td>24</td>
<td>22 (including repeats)</td>
<td>21</td>
<td>15</td>
</tr>
<tr>
<td>Length in Minutes (approx.)</td>
<td>3:23</td>
<td>1:43</td>
<td>2:54</td>
<td>1:48</td>
</tr>
<tr>
<td>% of Total Duration</td>
<td>35%</td>
<td>17%</td>
<td>30%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Figure 8.2: Structural proportions

This reveals a subtler and less linear structure than shown by the number of bars in each section.

### 8.3 Small-scale techniques and procedures

The elements of this piece that I have termed ‘improvisational’ range from free improvisation upon a given set of pitches or trigger motifs to the free control of the rhythmic pacing of events, to the control of only one or two musical characteristics. All of these musical scenarios were designed to accentuate the need for ensemble listening – this is the heart of the piece and the delicacy and intensity required and created by concentrated inter-ensemble listening is essential to the success of the expressive language of the music.

**Section 1**

At first the music seems assembled from nowhere as the ensemble ‘plucks it out of the air’. The use of freely paced grace notes in the notation is essential as the players are forced to place their gestures around those of the other players, at their own tempo, whilst ensuring that the compound gesture of the whole ensemble starts and finishes on time. The first drone pitch (B♭) is introduced in the cello and is taken up by the recorder, at first vocally and then on the instrument in the conventional manner. During the course of subsection II the recorder expands its pitch content and begins to fashion melodic phrases against the cello drone. These phrases eventually become improvised and are intended to contain the most overtly melodic material of the piece. As with all of the improvisatory elements in this and my other pieces there must be a balance between freedom and constraint, a process of showing the performer the soul of the music through composed material before allowing the freedom of shaping the exact
content and gestural direction. On top of this, and almost more importantly, the timbral quality of the cello drone (fourteen cents flat of equal temperament as the fifth partial of the G string) and the interactive and responsive nature of the support provided by the violin give the essential expressive context for the recorder player to work from.

The essential structural function of this improvised passage (bb.9–10) is to create an organic upbeat to the more through-composed downbeat of b.11. As this downbeat subsides the next drone pitch (Bb) is revealed. Another passage of ‘improvised upbeat’ leading to ‘semi-composed downbeat’ makes up the content of bb.19–22. The nature of the material given to the cello for improvisation in this subsection is less overtly melodic and more gestural in nature than that previously given to the recorder. This avoids creating too definite a trajectory in the improvised materials, as a cycle of ‘melodic improvisation’ leading to ‘composed, textural downbeat’ would very quickly become predictable and unsatisfying for both players and audiences. In works of this kind the balance of freedom and constraint is not only key for the players but should also enhance the listening experience for the audience. Their preconceptions about what ‘improvised materials’ sound like and their perceptions of what is improvised and what is composed can be wrong-footed as part of an intricate and mysterious sound world.

In these opening subsections the theorbo occupies a very high register and its material is entirely linear in nature, with no hint of the natural over-ringing, or ‘campanella’ style, that the instrument achieves so effortlessly. The first ‘downbeat’ of the work at rehearsal letter B allows the theorbo to widen its range somewhat, introduce a new pitch element (G#) and take an active role in the music by freely varying its figuration. Similarly the theorbo plays no role in the upbeat phases leading to rehearsal letter D but, again, over the course of bb.23–24 widens its range, expands the pitch content of the music and, critical to the structural narrative of the music, firmly moves to occupy the foreground of the texture at rehearsal letter E. The use of voices in subsection IV is worthy of special attention. The way in which the music moves into the voices undercover of the second violin, cello and theorbo, is an attempt to create an unexpected moment of sudden sonic shift without altering the thickness or essential
content of the texture. It is a ‘timbral sidestep’ and when the instruments cut away at
the end of b.23 an ethereal residue is left behind.

Section 2

The main pitch material of this section is a series of five chords and their associated
registrations and voicings.

![Figure 8.3: Theorbo chords for section 2](image)

![Figure 8.4: Chord voicings for ‘Textural Chaconne’](image)

The theorbo takes a central role in underpinning this section. Its range widens further
during subsection V and its gestures become progressively more vertical in nature.
They are a composed recollection of traditional chordal decorations and grow naturally
from the gesture that completes b.24. The other instruments also coalesce as the music
progresses in this section. At first their entries are staggered but there is a trend
towards each entry sparking the next in closer proximity as time passes until the
vertical alignment of rehearsal letter F is achieved.
Textural Chaconne (subsection VI)

In many ways subsection VI forms the heart of the piece. Like a small-scale, very delicate, version of the opening section's 'upbeat/downbeat' concept this is music bordering on stasis. In this passage the players themselves create movement, both harmonic and rhythmic, as they listen and respond to each other. The slightly timid 'moving ahead' and 'catching up' promoted by the lack of visual cues and the need for intense listening and concentration creates an 'actively-static' feeling of beauty and fragility. At the centre of this feeling lie the wider spaced voicings of the harmonies, the way in which string parts cross over the recorder register so that none of the 'melody' instruments (and especially not the recorder) dominate the top line of the texture. This 'textural chaconne' is also the subsection of the work with the greatest amount of harmonic change: in effect it has the fastest harmonic rhythm of the whole piece, and yet it is the most gesturally static; the paradoxical nature of this passage goes a long way towards defining its expressive character.

Section 3

Two ways of controlling the progress of the music and the individual durations of notes and chords form the backbone of this section:

• 'Decaying time' – this is controlled by the decay rate of harmonic gestures played by the theorbo such as those in subsections VII and IX. Above this 'textural glue' the other instruments place drones and fragments with improvisatory features. The players themselves derive the exact durations and rhythms of the recorder and strings by listening to the decaying theorbo chords and responding accordingly.

• 'Metred time' – rhythmic continuity is metred in the standard way and these subsections (VIII, X, XI) are largely defined by linear interplay between the recorder and strings with the theorbo largely absent or contributing linear campanella gestures. In these sections the music slides, by way of pitch-bending
on the recorder, between equally tempered drones and those performed as natural harmonics by the strings.

The vertical coalescence of the ‘textural chaconne’ evaporates in section 3 as the occurrence of chords vertical diminishes and is replaced by spread, or rolled, harmonic gestures in the theorbo. The rate of harmonic change is also slowed in this section and textural surface of the music moves towards recalling the ‘drone and linear gesture’ discourse seen in section 1.

The harmonic material for section 3 is derived from two main sonorities, harmonic focus is provided by a shifting series of drones.

<table>
<thead>
<tr>
<th>Subsection</th>
<th>VII</th>
<th>VIII</th>
<th>IX</th>
<th>X</th>
<th>XI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rehearsal Letter(s)</td>
<td>G–H</td>
<td>H–I</td>
<td>I–J</td>
<td>J–L</td>
<td>L–N</td>
</tr>
<tr>
<td>Type of time</td>
<td>Decaying</td>
<td>Metred</td>
<td>Decaying</td>
<td>Metred</td>
<td>Metred</td>
</tr>
<tr>
<td>Sonority</td>
<td>Chord 1 (initial theorbo voicing):</td>
<td>Chord 1</td>
<td>Chord 1</td>
<td>Chord 2 (theorbo cadenza voicing):</td>
<td></td>
</tr>
<tr>
<td></td>
<td><img src="image1.png" alt="Chord 1" /></td>
<td><img src="image2.png" alt="Chord 1" /></td>
<td><img src="image3.png" alt="Chord 1" /></td>
<td><img src="image4.png" alt="Chord 2" /></td>
<td></td>
</tr>
<tr>
<td>Drone focus</td>
<td>F♯ (violin)</td>
<td>F♯ → F</td>
<td>F (recorder moving to cello)</td>
<td>F (violin) → F (cello)/E (recorder)</td>
<td>E (theorbo)</td>
</tr>
<tr>
<td>Notes</td>
<td>Linear transition subsection.</td>
<td>Theorbo introduces E as natural harmonics. Chord 2 sonority introduced in violin.</td>
<td>Theorbo cadenza (letter L) on chord 2 eventually settling onto E pulsing drone.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When considered together the contours of sections 1–3 display the underlying structural processes of the work. The contraction of chordal events and the increasing harmonic rhythm in the lead up to rehearsal letter F (‘textural chaconne’) function as a kind of ‘anti-crescendo’ where the music intensifies in content but not in surface gesture, thus allowing the music to subtly shift in colour without ‘breaking its own
spell’. The paradoxical ‘textural chaconne’ forms the heart of the work, after which the harmonic rhythm slows and the instances of vertical chordal harmonies spread out as the music moves towards rehearsal letter N.

**Section 4**

Like the beginning of the ‘textural chaconne’ at rehearsal letter F, the coalescence of the ensemble at b.58 is one of the few moments of ensemble unison in the work. Structurally this unison is very significant as it marks the start of the final section; an apotheotic coda that explores a transposed version of the ‘apotheosis harmony’ first defined in *...but their stillness showed plainly...*  

![Figure 8.6: Transposed apotheosis harmony](image)

There are several techniques that define the texture and instrumental colour of this final section:

- **Tremolo** (strings and theorbo). Unmeasured and slightly fragile, especially when between a natural harmonic and an open string (e.g. violin, b.64)
- **Variations of bow position and pressure** – e.g. cello, b.67.
- **‘Dynamic pulsing’** (e.g. strings and recorder bb.58–9) – this is an attempt to evoke an ‘un-articulated rhythm’, to create a concentrated breathing of the ensemble. This heightens the ‘togetherness’ of the ensemble at this structurally significant moment. It allows the unison to be reinforced without altering its understated nature. This is a not a dramatic, extrovert unison and the gentle pulsing ensures that the music does not ‘break its own spell’ by become too overt and extrovert.
Many of these are largely absent from the rest of the piece to ensure that the final section retains a slightly different colour from the rest of the work in terms of orchestration and timbral and textural colour. As this section progresses the ‘dynamic pulsing’ unison becomes unsynchronised as the players are given control of their pulse rates. Pulsing in unison is re-established at rehearsal letter O for the final subsection of the piece.

During section 4 the theorbo begins by articulating the pitch E – the link between the ‘apotheosis harmony’ and preceding section. As the section progresses the theorbo explores many short campanella gestures based on the pitches of F♯ and G. These are an attempt to compose some ‘ornament-like’ gestures loosely based on appoggiaturas, trills, mordents and acciaccaturas. These gestures also explore the variations in colour attainable by playing the same notes on different strings of the theorbo and articulating the rhythms in a variety of ways, such as slurring with the left hand alone, plucking with the right hand, combinations of these two articulations and controlling the amount of ‘over-ringing’ between the strings: see the theorbo in bb.61–62 and bb.69–72.
9. ...to the same failing light...

9.1 Beginnings

The initial impetus for this work came from an invitation to attend the 2018 Composers+ Summer Academy in Druskininkai, Lithuania. For this festival I was asked to compose two works, one for solo accordion and the other for accordion with string quartet.

I had written for accordion in my work for the 2017 Thornham Summer Festival, *At the edge of his dreams...*, and wanted to expand on the materials I produced for that piece. During the composition of *At the edge of his dreams...* I had become fascinated with the accordion’s potential to produce seemingly endless phrases and its textural capabilities. I had also been impressed by the seamless way in which the accordion could introduce, or eliminate, notes from a sonority, without undue variation in articulation or sonic weight, and yet also maintaining absolute control of the dynamic level.

From the beginning of the compositional process for ...to the same failing light... I decided to consider the two works as related harmonically and aesthetically: they would share the same basic material and explore similar expressive territory, like viewing the same image from different perspectives. In Lithuania they were to be treated as separate pieces for performing and recording purposes and as such they also had to stand alone as independent musical discourses.

9.2 I ...the space that lies between them...

The inspiration for the solo accordion movement of the work came from the following passage in *At the edge of his dreams...*
I took the harmonic content of this passage and expanded it to create three harmonic centres for my new work.

Figure 9.1: Source material from *At the edge of his dreams...*

Figure 9.2: Harmonic area 1

Figure 9.3: Harmonic area 2

Figure 9.4: Harmonic area 3
The common intervallic threads running through these three areas (primarily the minor ninth, the semitone, the tone and secondarily major and minor thirds, perfect fourths and major and minor sixths) provided the harmonic framework of the music and progress through these areas structures the movement.

<table>
<thead>
<tr>
<th>Section</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bar numbers</td>
<td>bb.1–11</td>
<td>bb.12–25</td>
<td>bb.25–35</td>
<td>bb.35–47</td>
<td>b.47–end</td>
</tr>
<tr>
<td>Harmonic area</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Features</td>
<td>Established importance of the pitch A.</td>
<td>Ninths established.</td>
<td>Second melodic phrase pushes up to new high point (Db4)</td>
<td>Player choice element.</td>
<td>Final melodic phrase descending to new low point (A2).</td>
</tr>
<tr>
<td>Linking pitch</td>
<td></td>
<td>B♭</td>
<td>B♭/B♮</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

Figure 9.5: Movement I structural plan

These harmonic areas each occupy a relatively compact pitch space and lie very close to each other in register. This allowed me to explore the density of sound possible when both hands of the accordion play in a very confined pitch space (something that is physically more difficult on other keyboard instruments). Much like my archetype phrase from *At the edge of his dreams*... I wanted to make as much use of the bellows as possible and the extremely detailed control of dynamic that they afford without unduly altering the balance of a chord or texture, as the primary method of articulating the music. As such, I viewed the texture of the main body of *...the space that lies between them...* as a kind of ’stuck’ counterpoint. The voices enter as though they will continue independent melodic lives, only to become frozen in a suspended animation of textural development via the bellows of the accordion: for notable examples see passages starting at b.15, 26 and 37.

The opening section of this movement (bb.1–11) explores a single voice and eventually fashions a rising melodic phrase, descending echoes of which permeate the rest of the
movement, whilst exploring two kinds of ‘attackless emphasis’ created by manipulation of the bellows. These articulatory techniques show the central concern of this music – how not to break the line or phrase and how to evoke a limitless bellow length or ‘breath’ for each phrase.

9.3 IV ...to the same failing light...

Having established the main expressive agenda of the piece in the opening movement, questions of incorporating the strings, extending my articulatory preoccupations, and reworking the existing harmonic material into something ‘differently similar’, came to the fore.

In this movement two of the central tenets of the first movement were altered as follows:

1. Small tessitura and close voicing of harmonies

became

1a. Large tessitura and open spacing of harmonies

and

2. ‘Stuck, floating counterpoint’ texture

became

2a. Vertical chordal harmonies

The opening bars of this movement show both of these textural and registral changes with a widely spaced chord utilising the pitches of harmonic area 2 defined above.

Figure 9.6: Movement IV, chord 1
A variety of different voicings of this chord form the backbone of this movement. Very early in the compositional process I realised that these differing voicings, and the movement of the pitch C through the registers from the top to the bottom of this critical harmony, were at the heart of the music. Underpinning this process is the consistent register of the pitch D.

It is also important to note the way in which these pitches are assigned to the string instruments. I had a strong desire to subvert the traditional hierarchy of the string quartet psyche, both in terms of register and textural 'importance'. For large sections of this movement it is the viola that provides the bass and very often the cello occupies the highest range of the music, with the traditionally dominant violins providing the middle registers. This orchestration, and variations upon it, gives the music a more translucent quality; an ethereal glow that is both luminous and rather fragile, especially when the timbre of the many natural harmonics employed in the strings is taken into account.
The relationship between the accordion and the strings

I was determined to establish a symbiosis between the strings and the accordion and avoid a soloist/accompanist relationship. To this end the accordion often provides much of the texture in this movement as pitches migrate from one string instrument to another via the accordion. A good example of this is the way in which ‘Chord 1’ is incrementally subsumed by the accordion from the beginning until b.12 where this harmony evaporates from the accordion to leave only the high C in the cello and accordion; this in turn passes to the first violin before rehearsal letter B. One of the few solo accordion passages leads to another of these ‘symbiotic’, dovetailed moments: the ‘textural tremolo’ at rehearsal letter F crescendos to a sudden halt in b.49 leaving behind a high, ghostly ‘residue’ in the strings.

As with many of my works this piece attempts to integrate an element of ‘performer listening’ into the music. Between rehearsal letter G and b.61 the second violin colours the pitch B with varying intensities of vibrato. At first these are indicated in the score before becoming controlled by the performer at b.57. During this passage the accordion player is asked to respond to the shape and intensity of the second violin vibrato by varying the dynamic of the D bass drone. In this way the symbiosis between the accordion and the rest of the ensemble is enhanced.

Developing the relationship between the accordion and strings often involved considering how best to articulate and orchestrate the string parts in order to blend, balance and dovetail most effectively with the accordion. I had found an altered pizzicato technique (rehearsal letter H) that allowed the final version of ‘Chord 1’ to be articulated in such a way as to provide the apothecotic ending that appears in many of
my works. The ‘attackless emphasis’ techniques utilised in the opening phrases of *...the space that lies between them...* allowed me to find a way of looking at the relationship between the instruments from the other side and incorporating the accordion into the pizzicato texture by again using the bellows to provide all of the articulation – this time by means of a modified ‘bellows shake’ technique.

**Structure and form**

Early in the composition process for this movement I had designed the voicings of ‘Chord 1’ (see above) and crudely linked them together for a preliminary rehearsal. I was pleased with the results on a textural level but it was clear that other harmonic material was needed to create a convincing musical discourse. Referring back to the first movement of the piece I recalled the way in which single pitches provided links and ‘wormholes’ between the different sections and harmonics areas of the music. In an attempt to expand on this technique I made a Venn diagram of the three harmonic areas to show the potential pitch linkages between them.

![Figure 9.10: Harmonic Venn diagram](image-url)
Having established the common pitches and cross linkages between the harmonic areas I was able to explore structural possibilities and discover a satisfying formal contour.

<table>
<thead>
<tr>
<th>Section</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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</thead>
<tbody>
<tr>
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<td>bb.1–16</td>
<td>bb.17–32</td>
<td>bb.33–42</td>
<td>bb.43–53</td>
<td>bb.54–68</td>
</tr>
<tr>
<td><strong>Length (bars)</strong></td>
<td>16</td>
<td>16</td>
<td>10</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td><strong>Harmonic area</strong></td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td><strong>Linking pitch</strong></td>
<td>C</td>
<td>Bb</td>
<td>B</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td><strong>‘Chord 1’ version</strong></td>
<td>V1</td>
<td>V2 + V2a</td>
<td>V2b +3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Features</strong></td>
<td>Chordal texture.</td>
<td>New high point (Db6).</td>
<td>Accordion 'textural tremolo'.</td>
<td>Vln II and Acc. communication.</td>
<td></td>
</tr>
</tbody>
</table>

Figure 9.11: Movement IV structural map

9.4 ...touchless as they sleepwalk... - II, III and macro-architecture

Movements I and IV were rehearsed, performed and recorded in Lithuania before the end of the Composers+ Summer Academy. Upon my return to the UK I wanted to expand on the links between these two movements and decided to compose two more movements that would introduce the strings and formalise the whole work into a four-movement concert suite.

II ...touchless as they sleepwalk...(I)

At the end of the solo accordion movement the player is instructed to ‘fall off the end of the glissando’, starting on B4. In practice the size of this glissando depends on the
performer and the instrument being used but in almost all cases at least a semitone can be achieved. To dovetail with this glissando I decided that the second movement of the work should begin on B♭4. A duo of violins was chosen for this movement as their timbral homogeneity could naturally lead the listener from the sonority of the solo accordion into a musical landscape containing the more overtly expressive sounds of bowed strings. To this end the violinists are instructed to play senza vibrato at the start of the second movement to mimic the more static voice of the accordion, with the first hint of ‘violin-ness’ being the vibrato used in violin I at the end of b.6. To perpetuate the illusion of there still only being one instrument playing, the first and second violins often cross each other registrally in the opening phrases of this second movement. Initially the second violin is above the first, but by the end of the first phrase (b.6) it is the first violin that has taken the higher register; this process happens many times during this movement and enhances the amorphous qualities of the two-violin texture. This movement also introduces the concept of the string instruments playing in unusual registers, an idea that is explored more fully in the fourth movement, as a more traditional instrumentation for this movement would be violin and viola.

To further enhance the links between the first and second movements the first phrase of the second movement (bb.1–7) is based on the right hand of bb.25–6 of the first movement and the second phrase of the second movement (bb.8–13) is based on the left hand of bb.26–29 of the first movement. Gesturally this movement follows the ‘stuck counterpoint’ model of the first movement and so does not move the music towards the vertical chordal textures heard in the fourth movement. It does, however, expand the tessitura of the work by moving from its starting point of B♭4 to B5 and it is this new high point that provides the link to the third movement of the piece.

III ...touchless as they sleepwalk...(II)

This movement also relies on unconventional registral organisation to colour its harmonic sonorities. With the viola entry in b.6 a new high pitch is reached (Ab6) and the violin is again found to be occupying the lowest register of the harmony. The viola pushes the music up again in b.7 with another new high point of B♭6 with the violin still playing the bass. During these first two phrases of this movement (bb.1–6 and bb.7–11)
the process of passing pitches from one instrument to another by means of dovetailing is established in preparation for the final movement. The B♯ that joins the third movement to its predecessor is passed into the cello in b.1 and the viola Ab in b.3 is passed into the cello in b.6.

The third movement also moves the texture towards vertical chordal events in preparation for the final movement. In b.9 the dynamic swell of the viola and cello is vertically coordinated, the first hint of a vertical event in the two string movements. In b.10 the violin joins this swelling as the vertical ‘togetherness’ hinted at in the previous bar becomes more overt. The downbeat of b.12 is the first vertical chordal ‘attack’ of the whole work. It is an important chord both in terms of its pitch content and its registral organisation. The viola pushes up yet again to a new high point of B6, the cello has moved to the bottom of the chord for the first time and sounds the pitch C (a pitch that is so important in the fourth movement) for the first time in the third movement. The violin is perfectly positioned for the start of the fourth movement as it is playing its starting pitch in the correct register. If we compare the final chord of the third movement with the first chord of the last movement we can see that the viola and the cello, despite already having at least some of their pitch content in place, are at opposite ends of the chords in terms of register.

![Figure 9.12: Harmonic link between movements III and IV](image)

Across the four movements a web of connections has been established that articulates a super-macro scale architecture, beyond the structuring of the individual movements, and that binds the music together.
<table>
<thead>
<tr>
<th>Movement</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection</td>
<td>Attacca</td>
<td>Attacca</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>Linking pitch</td>
<td>B♭</td>
<td>B</td>
<td>B♭, B, C</td>
<td></td>
</tr>
</tbody>
</table>

Figure 9.13: *...to the same failing light...* multi-movement macro-form
10. *...with magic in my eyes...*

10.1 Commission and Beginnings

In 2015 I travelled to Tianjin, China to perform a solo recital and give a masterclass in the Tianjin May Festival. My host was the composer and conductor George Holloway, Dean of Composition at the Tianjin Conservatory at the time. On my final day I went to watch George rehearse the children’s choir he was conducting at Tianjin’s Grand Theatre. Late in 2018 George commissioned me to write a piece for his own children’s choir for a premiere in Tianjin and their subsequent tour of the UK. I had previously composed for children and amateur musicians in some instrumental works in 2011 and 2013 but I had not composed for voices since 2009 and so relished the opportunity of combining these two challenges.

**Text Selection**

I was writing for children and, given the time constraints of the project, there was not enough time to learn to set Mandarin Chinese, so they would be singing in English, their second language. My piece was to be sung on the choir’s trip to the UK and for many members of the choir it would be their first time visiting the country, so I wanted to find a text that was in some way quintessentially English and told a story about, or referred to, some kind of English folklore or myth. When I was young I was extremely fond of the Arthurian legends and having considered several poems retelling many of these classic stories I settled on the following poem by Thomas Hardy (1840–1928):

```
When I set out for Lyonesse,
A hundred miles away,
The rime was on the spray,
And starlight lit my lonesomeness
When I set out for Lyonesse
A hundred miles away.
```
What would bechance at Lyonnesse
While I should sojourn there
No prophet durst declare,
Nor did the wisest wizard guess
What would bechance at Lyonnesse
While I should sojourn there.

When I came back from Lyonnesse
With magic in my eyes,
All marked with mute surmise
My radiance rare and fathomless,
When I came back from Lyonnesse
With magic in my eyes!

Hardy is a deeply English poet and in this poem he captures the magical feeling of the mythical county of Lyonnesse. On a practical level this poem was very suitable for the project. All of the stanzas are the same length and there is quite a lot of repetition between the stanzas in structure and within lines. Looking deeper, the syllabic structure of every stanza is the same, with the lines being 8, 6, 6, 8, 8, 6 syllables in length respectively:

When I set out for Lyonnesse, (8)
A hundred miles away, (6)
The rime was on the spray, (6)
And starlight lit my lonesomeness (8)
When I set out for Lyonnesse (8)
A hundred miles away. (6)

This repetitive structure aids learning and textural familiarity. My previous experience of vocal writing taught me that it is best to work with the minimum amount of text possible for the length of composition in order to aid word learning. Lines or whole stanzas can be repeated or varied with different vocal textures or differing accompaniments to provide musical interest, reiterate the meaning of the text and
streamline the learning process. This ‘economy of text’ would become even more important when writing for children in their second language and this was a point that George was keen to reiterate during our discussions.

10.2 Macro-form and Structural Features

<table>
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<tr>
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<th>6</th>
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<tr>
<td><strong>Type</strong></td>
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<td>Transition 1</td>
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<td>Transition 2</td>
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<td>Vocal 4</td>
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<td>2(bb.17–19)</td>
<td>25(bb.19–44)</td>
<td>5(bb.45–50)</td>
<td>22(bb.50–72)</td>
<td>7(bb.73–80)</td>
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<td>Stanza 1</td>
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<tr>
<td><strong>Musical features</strong></td>
<td>Hummed drones.</td>
<td>Piano solo with descending top line and expanding intervallic content.</td>
<td>'Weightless' chords in the piano. Vocal texture moves from single line to first instances of two-part texture.</td>
<td>Piano solo expanding material from 'transition 1'.</td>
<td>Two-part setting of stanza 2. Melody and accompaniment texture.</td>
<td>More expansive development of 'transition' material.</td>
<td>'Magic' apotheotic harmony explored with vowel sounds and melismatic decoration. Three narrators speak the text of stanza 3.</td>
</tr>
</tbody>
</table>

Figure 10.1: Structural map

The relationship between the lengths of the vocal and transition sections is interesting and provides much of the dramatic contour of the piece. The vocal sections expand and then contract whilst the transition sections only expand. This prevents the vocal sections feeling static or stuck: although each stanza is the same length, with exactly the same number of syllables, the varying texture and vocal setting allows the length of each stanza to vary musically and create a satisfying expressive structure. The linear growth of the transition sections is also important as they smoothly introduce new intervallic and textural content, each vocal section becoming more and more different from the preceding one. These transition sections all develop similar material and provide a unified character that belies their function as 'introducers' of new material as the content and dramatic character of each vocal section become more disparate.


10.3 Small-scale Techniques and Procedures

Word setting and vocal writing

I wanted a variety of vocal writing styles and word setting techniques to give the children in the choir a varied and interesting experience. George was also keen to give some more prominent roles to some of his strongest students. I decided to use a single soprano soloist at some points in the piece and a group of narrators at other points. Since the strongest member of the choir would sing the soloist role I decided to give them the most challenging material texturally, dramatically and in terms of ‘singability’. The rhythmic content and the progression through the text are partly controlled by the dramatic sensibility of the soloist and thus require an expressive maturity. In terms of pitch content, the slides either side of the hummed drones held by the tutti sopranos and altos need a secure voice to perform convincingly.

Generally speaking, throughout sections three, five and seven the movement of the vocal line is by step to aid practicality. A notable exception occurs in section 5 where a leap of a tritone (see bb.52–53 for the first instance) shapes the line more expressively, emphasises the word ‘Lyonnesse’, and helps create the languid, mysterious and almost Satie-like harmonic world. The density of the vocal lines also increases across the four vocal sections. In section 7 this process reaches its climax with the division of the altos into three parts. As the highest and lowest parts explore single vowel sounds and outline the main harmony of the section the middle alto part performs various melismas on the line ‘with magic in my eyes’. As this section progresses the complexity of these melodic decorations decreases and the textual content is thinned until only the word ‘magic’ remains. This word is then itself disintegrated in the final phrase of the piece, creating a magical and mysterious ending.

Harmonic and rhythmic processes

The B hummed by the sopranos and altos, articulated by the piano and struck by the Japanese rin, is the central pitch of the whole piece and all of the melodic and harmonic material is grown from this note. In section 1 it is used to create a drone in the tutti
voices that is punctuated by the piano and percussion and the solo soprano line is
defined in relation to this drone. The harmonic material of section 3 is grown from this
B pitch and is made up of what I have termed ‘weightless’ chords. These are harmonic
clusters of alphabetically consecutive notes arranged in certain intervallic spacings to
create a feeling of non-centred harmonic suspension. Within these chords any of the
notes could be the ‘tonic’ of the chord and it is the vocal line that define the harmonic
centre of each chord.

![Figure 10.2: ‘Weightless’ chords](image)

In the above example the voice defines the ‘tonic’ of the first chord as B, the bass notes
of the chord, and in the second example, a later instance of the same harmonic content,
the ‘tonic’ is defined as G, the middle note of the chord. It is the way in which these
chords are harmonically ambiguous and slightly amorphous, until the voice lends them
clarity, that makes for the weightless and floating feeling of section 3.

Section 5 is in many ways the most conventional in the piece, particularly in terms of
texture. It has a regular accompaniment pattern in the piano and simple, melodic, two-
part writing for the voices. Similarly the harmonic content is, on the surface at least, also
the most conventional: there are chord progressions that repeat and are varied and
developed. Beneath this simple and traditional façade I have tried to evoke and
incorporate the spirit of Erik Satie. I admire Satie’s music for its clever use of diatonic
chords and its languid expressive mystery. One of the first steps in defining the
harmony of section 5 was to take a standard classical chord progression and find a way
to make it weightless.
ii – V – i

Could become

V – ii – omit tonic

Or

V – ii – VI

Or

ii – V – iv

Similarly

VI – iv – V – i

Could become

VI – iv – V – iv

In these progressions the dominant–tonic relationship is sidestepped or subverted to avoid the establishment of the clear and unambiguous tonal centre of e minor until the very end of the section at b.72. Consider the following chord progressions.

V

ii

What would bechance at Lyonesse

V

ii

While I should sojourn there
No prophet durst declare

Nor did the wisest wizard guess

What would bechance at Lyonnesse

While I should sojourn there.

Beyond this the chords themselves are inverted and extended to further colour the harmonic water and confound the listener's sense of tonal centre. Compare a standard voicing of each chord on the left of the following diagram with the versions of each chord used in the piece.

Figure 10.3: Adaptations to functionally tonal chords
The adaptation of chord V\(^7\) is possibly the most extreme as the addition of a thirteenth and inverting it to the third inversion creates a real subversion of its dominant properties. The vocal line does much to enhance this functional sidestepping by leaping up a tri-tone at the beginning of b.53 and landing on a D\(^\#\) (not part of the prevailing ii harmony) before falling down to a C\(^\#\). Similarly the vocal line leaping up to an E at b.59 highlights the use of chord VI in place of the tonic chord as the tonic pitch E is ‘mis-harmonised’.

Alongside these harmonic principles, section 5 also employs some rhythmic procedures designed to enhance the discourse beyond its seemingly traditional surface. The accompaniment pattern introduced by the altos in b.52 and established by the piano in b.53 is very simple in its construction, but by shifting the time signature it is possible to ‘wrong-foot’ the listener as to the location of the downbeat. The passage from bb.54–b57 shows this most clearly. This is similar to an overarching interest in manipulating the iambic metre of Hardy’s poem. In section 1 the soloist is guided towards giving the first syllable of the first line the stress, thereby subverting the iambic metre and superimposing a trochaic stress pattern. Section 3, which has the same text, contrasts this by giving the stress to the second syllable and reverting to an iambic stress pattern.

It is worth noting that the harmonies of section 7 are made up almost exclusively of my special apotheotic harmony transposed into G major, the relative major of the, subverted, tonic key of section 5.

**Transition sections**

One of the principal functions of the transition sections is to expand the harmonic content of the music. In section 1 the predominant intervals are unisons, octaves and semitones. The first transition section (section 2) slowly transforms these unisons and octaves into minor sevenths whilst maintaining a drone on B in the bass. Indeed all of the transition sections (sections 2, 4 and 6) function in this way, although the time it takes for each transition section to move from octaves to minor sevenths, and other intervals, gets progressively shorter. The variety of these other intervals increases as the piece progresses and one of the most important harmonic functions of section 6 is to
introduce the interval of the major sixth, a critical interval in the three part alto writing of section 7. One of the ways that the transitions introduce new harmonic material is through the descending movement of the piano’s top line in preparation for the next section.

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<th>Section</th>
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<th>4</th>
<th>6</th>
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</thead>
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<tr>
<td><strong>Top Line Movement (general trend)</strong></td>
<td>B6 → A6 → G5</td>
<td>B6 → A5 → G5 → F#5 → E5</td>
<td>F#6 → E6 → D6 → C6 → B6 → A5 ....D4</td>
</tr>
<tr>
<td><strong>Intervallic content</strong></td>
<td>Octaves, minor sevenths</td>
<td>Octaves, minor sevenths, major sevenths</td>
<td>Major seventh, minor ninths, major sevenths, major sixths, perfect fifths</td>
</tr>
</tbody>
</table>

Figure 10.4: Harmonic and registral trends in transitions sections

In terms of rhythmic content the transition sections are built of simple materials with the main gestures consisting of fluttering grace note figures and wide, quasi tremolando, leaps. In section 6 these gestures solidify into cascading semiquaver skips which, as the section progresses, evaporate to pave the way for the apotheotic harmonies of section 7.

**10.4 Expressive aims and means**

The story told by Hardy’s poem was the main driving force behind the expressive aims and devices of the piece. The idea of a journey to a magical, mythical place, to undertake a transformative experience and return a changed person, resonated with me personally and in the piece this journey is expressed in the following structural trends:

B centred drone, incantations and ‘tonic-less’ harmonies → Mysterious and subverted melody and accompaniment → Textural apotheosis

As a small boy I had a deep connection with the legends of King Arthur and the fictional county of Lyonesse features heavily in those legends. In the Arthurian stories Lyonesse bordered Cornwall and sank beneath the sea to rise again at a distant appointed hour. I grew up in Cornwall and moved away to further my studies and career in music. Nowadays Cornwall feels like my own Lyonesse, a place to which I
undertake long journeys to experience its magic and reconnect with the landscape of my youth. The harmonies, gestures and rhythmic content of this piece are all designed to reflect the longing and mystery expressed in Hardy’s words and attempt to take the choir and listener on a transformative journey.

Use of Percussion

The rin and the crotales both add extra resonance to the piece and reinforce the central B pitch. Their most important functions, however, are dramatic and ritualistic. Bells and bell like sounds are associated worldwide with transformative rituals and important life-events. In my piece the use of the crotales by the soloist and the narrators evokes the prayer-like and ritualistic use of bells or cymbals seen in many cultures. They focus the listeners’ attention at certain key moments and connect to the mystical and transformative aspects of the poem.

Staging

Like the use of the percussion instruments, staging has an important dramatic role as it reflects the journey-based narrative of the poem. As the soloist moves through their three positions in section 1 the first stanza of the poem comes into focus and the ‘fluid’ form of staging position 2 is a direct evocation of the journeying part of the poetic narrative. In section 7 the removal of the sopranos and the new positioning of the altos and narrators reflect the ‘transformed returner’ of the final stanza of the poem.

10.5 Writing for Children and Amateur Performers

Some of the compositional decisions made during the writing of this piece were purely practical. Writing for children was a stark reminder that so much of what we do as composers is objectively quite difficult to execute in performance. As composers of ‘concert music’ or ‘art music’ we are used to writing for professional players and in many cases professional players who specialise in the performance of music by living composers. This can sometimes lead us to developing compositional habits and fingerprints that are either physically or conceptually difficult to perform. Much of the
The harmonic language of many of my pieces is defined by an interest in contrasting the natural overtone series with equally tempered pitches. This is a very difficult thing to explain, notate and rehearse with a group of ten-year-old children who will be singing in their second language. The drones and associated vocal sliding of the first section are an attempt to approximate some of the harmonic colour achieved by my normal predilection for the natural series of overtones. Similarly the subverted functionally tonal chord progressions of section 5 aim to provide a harmonic grounding for the young singers but to maintain the mystic atmosphere of the piece. I mentioned before that the choice of poem was influenced by its structure and that the repetitive nature of the stanzas’ lengths and content was an aid to learning for the performers. Similarly when designing many of the vocal lines and the word setting I was conscious of the music’s singability and wanted as much step-wise movement as possible to allow the singers to focus on the diction of their second language. In another way the simplicity of much of the vocal writing allowed me to incorporate the percussion and the different stage positions and thus give the children a new experience and create a stronger, more immersive and expressive experience for the listener.
11. Conclusion

Alongside the general technical resources and expressive aims laid out in the introductory chapter, and the more specific trends and details pinpointed by each subsequent chapter, this portfolio charts the course of an attempt to conceive, design, explore and master a unique and personal compositional voice that is technically clear, expressively engaging, and rewarding of close listening. In retrospect it is clear that the number, range and complexity of compositional systems employed in the works represented here diminishes as the portfolio progresses. In the earliest of these pieces there tends to be some systematic control present for the majority of the piece's duration, especially on a rhythmic level. It is possible the diminishing reliance on structural polyrhythms and the like is a reflection of an increasing ability to trust my compositional instincts, a sign that the successful features of those techniques have been assimilated into my intuitive responses to musical material and structural drama.

Perhaps a heightened awareness of the potential for automatic procedure to mask, rather than enhance, precise dramatic pacing, and an increased command of small scale, bespoke technical procedures (as demonstrated in the central chapters of this commentary) also played a part in this shift in technical resources and outlook. I would like to think that I have also managed to cultivate a more refined sense of what the music 'needs', both on a moment-to-moment basis and in terms of large-scale structuring and pacing, allowing me to craft phrases and gestures that contribute to the fabric of music in a technical and expressively active way rather than relying on systematic procedure to facilitate the filling of musical time until the next structurally significant event.

On another, deeply personal, level this portfolio started with an intense wish to re-examine and invigorate my use of pitch and engage directly with the harmonic series. In this way I feel that the creation of this portfolio has been a success and that it is this re-energised engagement with pitch resources in general that has allowed me to define and shape a compositional language that is, if not fully formed, developing in a unique, personal and expressive way.
There are several areas that this portfolio touches on but does not explore in great detail as they were not the focus of my research. These areas are, however, of great interest and I will develop them as part of my language in the next phase of my compositional research. Much of my use of the overtone series has revolved around the fifth and seventh partials, fourteen and thirty-one cents flat of equal temperament respectively, and the evocative effect created by placing them against, around, and in combination with their equally tempered equivalents. I would like to experiment with ways of incorporating higher partials into my music and partials eleven and thirteen particularly attract my attention, being forty-nine cents flat and forty-one cents sharp of equal temperament respectively.

The ‘natural leading note’ of the fifteenth partial, twelve cents flat of equal temperament, is also a personal favourite that I have yet to integrate into my composition. It is not practical for composers to expect performers to be able to accurately pitch twelve cents below, or in fact above, an equally tempered pitch. Violinists fluent in new music, for example, can easily locate, as a normally fingered note, a quartertone fifty cents below or above an equally tempered pitch. Most could divide that distance in half again to find an eighth tone but it would be a rare specialist performer of microtonal music who could accurately and repeatedly locate a pitch that is sharp or flat by, say, twelve cents. To ensure the accurate performance of these microtonal pitches they are best deployed ‘as nature intended’ i.e. as natural harmonics on vibrating strings or columns of air.

This in turn gives rise to two scenarios that limit the use of these higher partials: either the pitches produced are in a very high register or, to produce these harmonics in a lower pitch space, only very low register instruments can play them. These scenarios have implications for the kind of ensemble instrumentations that could allow incorporation of these partials in a practical way. There are several possible solutions to this that I would like to explore. One is to expand the use of scordatura seen in this portfolio in pieces such as ...but their stillness showed plainly.... If one were to tune the lowest string (C2) of a cello fifty-five cents sharp and then play the fifth partial the resultant pitch (E4) would be forty-one cents sharp (+55(scordatura)-14(fifth partial deviation) = +41cents). This pitch is identical to the thirteenth partial in the harmonic
series of G♯0. In this way it is possible to create the desired partials of a given fundamental in the desired register without the need for the appropriate fundamental to be present or playable on any of the instruments in the ensemble. Other possible solutions to this could involve the use of technology, such as tuning pedals or transposing algorithms, either to synthesise the desired tuning or to augment an acoustic instrument. A more outlandish, yet extremely attractive, solution could involve the use of scordatura pianos to access any pre-ordained microtonal pitch, without the need for natural harmonics or the modifying of existing instruments.

Outside of the realm of the harmonic series I would also like to incorporate other new pitch resources into my work. In ...with magic in my eyes... I was able to experiment with harmonic progressions dependent on some form of functional tonality and I would like to expand on this, making a thorough appraisal of the role that those kinds of harmonic movement could take in my future music. I have recently become interested in the music of Gerald Barry and would like to undertake some analysis of his music in order to better understand his harmonic language, which seems to contain and combine many disparate elements into a cohesive and expressive whole. In the main I have resisted the use of identifiable harmonic objects, such as the whole-tone scale or overtly functionally tonal chords, as I felt unable to reconcile their innate aural character with the expressive aims of my music. As I move on I feel that I have gained control over the basic technical aspects of my compositional language and have elided them with my expressive aims; I can therefore begin to add other, more disparate, elements into my musical landscape without fear of ‘not being able to see the wood for the trees’.

Spatial presentation of performers is something that has bubbled to the surface at least twice in this portfolio and it is something that I would like to expand in future works. I am attracted to the idea of off-stage musicians, as well as mobile performers who move during the course of a work, as I feel that the use of space can greatly enhance the expressive message of a piece. Linking musical material to a physical place rather than a certain instrument or voice, and rearranging the musicians on stage as the story of the music changes their relationship to each other, seems to contain great expressive potential. I would like to explore ways in which the spatial distribution of musicians can become a compositional resource as well as a dramatic presentation tool.
Only one work in this portfolio is specifically for singers but two of them feature voices. The use of the untrained voices of the performers in *...on plain air...* is very attractive to me. It is not something that audiences expect and I would like to experiment with this more often. The idea of an ‘extra role’ for each performer could in fact be expanded further to incorporate the small mobile percussion instruments seen in *...with magic in my eyes...* or found objects, narration, body percussion or a large number of other possibilities. I would also like to write more for singers and compose again for professional vocal ensemble. One of the overarching literary references and inspirations across this portfolio is the work of David Harsent and I have been lucky enough to discuss my music with him in relation to his poetry. David has given me permission to set his long narrative poem *A Dream Book* from his 2014 collection *Fire Songs* to music. This could be the perfect opportunity to combine the ideas mentioned above, as the structure of the poem is a set of narrative episodes that could be characterised by varying spatial arrangements. It might be possible to conceive of this setting as a vocal ensemble that provides its own instrumental accompaniment via the ‘extra roles’ discussed above.

In this conclusion I have tried to give a picture of the most significant retrospectively identifiable trends in my musical language and compositional output. I have also tried to elucidate ideas for future work or new pieces that have come as a direct result of composing the pieces presented here. I view my PhD portfolio as a means and not an end. Composing the works and preparing this commentary has opened my eyes to many important features of my musical language, both learned and instinctive, and has enabled me to evaluate and quantify what I think is important when writing music, both technically and expressively. I wrote earlier in this chapter about my diminishing reliance on prefabricated compositional systems as an overarching outcome of my research. I believe this, at its heart, to be due to an enhanced awareness of the link between material and expression and the fact that the expressive potential of a gesture or motif is contained in its germination. I feel that I have become much more skilled at recognising the expressive qualities of a piece of material at a much earlier stage of the compositional process so that the technical resources and the expressive aims have become more closely joined in my music. I aim to ensure the continuation of this
process whilst expanding my knowledge and practice along the lines set out in this chapter.
**Bibliography**


Mustill, T. 2014. Harrison Birtwistle: Notes from the end of a Garden. <https://www.youtube.com/watch?v=7pzM7Iq4zM> 16/10/17


Appendix 1 – Tuning analysis of St Stephen’s, Rochester Row (see chapter 4.2)\textsuperscript{10}

Frequencies of main partials (Hertz)

*Westminster, St Stephen*

Red = flat of true harmonic tuning; blue = sharp; green = optimum

Source: Dickon Love, 21 May 2013

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Frequencies in terms of note

Freq. in terms of relative intervals from the tenor nominal (cents)

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Variations from established scales

From Mean:  Equal Temp | Just Tuned | Mean Tone

From Tenor: Equal Temp | Just Tuned | Mean Tone


115
‘MY LUNGS TASTE THE AIR OF TIME
BLOWN PAST FALLING SANDS...’
(2015)

For Piccolo, Violin, Cello, Harp and Piano
C.7-9'

Sam Cave (b. 1987)
Instrumentation:

Piccolo
Violin
Violoncello
Harp
Piano

Score in C with the usual octave transpositions

Duration: c.7-9 minutes

Conductor:
From rehearsal letter C until the end of bar 63, hold each chord in the piano and harp until the ‘harmonic identity’ of the chord is no longer audible.

Strings:
Natural harmonics are notated at approximate fingered pitch with the desired resultant pitch shown in parentheses. The string to be used has often been indicated and should continue to be used until a new indication supersedes it.

Scordatura:
Violin

\[
\begin{align*}
\text{Deviation from equal temperament are shown in cents.} \\
\text{The full size violin stave shows the fingered pitch and the ‘cue-size’ stave shows the resultant sounding pitch when playing on the G\# string. Cent deviations are not shown in the ‘cue-size’ stave and therefore the score shows fingered pitches when playing on the scordatura strings.}
\end{align*}
\]

Cello

\[
\begin{align*}
\text{Deviation from equal temperament are shown in cents.} \\
\text{The score shows fingered pitches when playing on the scordatura strings.}
\end{align*}
\]
'My lungs taste the air of Time
Blown past falling sands...'

Sam Cave
(b.1987)
Picc. B start sharp and gliss. down add vib. → non vib gliss. up to match Vln.

Vln. (p) loco sul D gliss. natural harmonics gliss. natural harmonics sul G

Vc. mf gliss. natural harmonics p

Harp

Pno. pp half-damp with pedal

Picc.

Vln.

Vc.

Harp

Pno.

Pno.

Picc.
D

**Picc.**
- mf
- pp
- Play each time Pno. plays high C#
- **Vln.**
- mf
- **Vc.**
- mf
- **Hp.**
- f
- **Pno.**
- p
- Pedal down until the end
- **D**
accents only very slight, all notes slightly separated

accents only very slight

stop reiterating pitches

stop reiterating pitches

accents only very slight

ord.

pizz.

ppp

sul E

accents only very slight

accents only very slight

ord.

pp
Vln. 79
Hp. 85
Pno. 91

Vln.

Pno.

pizz

Pppp

ring until silent...
...TO IMPRISON THE WIND

(2017)

For Piccolo, Cello and Guitar
C.7-8’

SAM CAVE (b. 1987)
...to imprison the wind is an arrangement of my larger 2015 work My lungs taste the air of time Blown past falling sands... and was premiered at the Coronet Print Room in London on the 25th October 2017 by the Octandre Ensemble as part of the Coronet International Festival.

Instrumentation:

Piccolo
Violoncello
Guitar

Score in C with the usual octave transpositions

Duration: c.7-8 minutes

General:
From rehearsal letter C until the end of bar 59, hold each chord in the guitar until the ‘harmonic identity’ of the chord is no longer audible, and then repeat it. Once the second sounding is inaudible the guitar cues the next bar. During these bars the piccolo and the cello should repeat their fragments until cued by the guitar to move on.

Natural harmonics for the cello are notated at approximate fingered pitch with the desired sounding pitch shown in parentheses. Natural harmonics for the guitar are notated at sounding pitch with string numbers and fingerboard position markers.

Scordatura:

Guitar

Cello

Deviations from equal temperament are shown in cents.
Score shows fingered pitches when playing on the scordatura strings.
...to imprison the wind

Sam Cave  
(b.1987)
sul C

swell each time Gtr. plays low C#

accents only very slight

tune C# to D

repeat boxed notes with LH as they fade out

Repeat ad lib. until guitar retuned

all notes slightly separated

p pont.

pont.

LH

still pont. with a slight vib.
Curved lines ‘gainst square glass
(2015-16)

For solo theorbo C.9’

Sam Cave (b. 1987)
Score at fingered pitch, written a minor-ninth above sounding pitch.

Duration: c.9 minutes

Programme note:

An attempt to capture and inhabit the melancholy of a moment and the resonance of the theorbo were the major inspirations for this work. The way in which the instrument can be inactive yet restless and intense, seemingly weightless and still produce sounds of great gravitas proved endlessly fascinating to me during the composition of the piece. *Curved lines ‘gainst square glass* was written, with great admiration, for Johan Lofving.

S.C. (London, February 2016)

*Curved lines ‘gainst square glass* was premiered by Johan Lofving on the 27th January 2017 at Brunel University, London.

Performance Directions:

**Natural decay** - rhythmically speaking, several sections of this piece are governed by the natural decay of the instrument’s strings. Any note marked with a ‘square’ fermata should be held until inaudible, any ongoing trills/tremolo/repeating figuration should continue undisturbed during this decay period.

**Boxed pitches/figures/trills/tremolo** – continue the boxed ‘event’ for the duration of the arrow. Boxes which contain a pitch and a rest should be repeated ‘ad. lib’ to produce a slightly stuttering effect.

**Vibrato** – there are three levels of intensity, shown by the relative thickness of the black wavy lines. ‘Intensity’ in this work is not necessarily indicative of the speed of vibration, but rather the amount of pitch shift generated.

**Left-hand pizzicato** - several pitches are to be plucked with the left hand and are marked with a ‘+’.

**Harmonics** - in the treble stave these are notated at sounding pitch. In the bass stave the sounding pitch is given with a diamond note-head and the fundamental open string is shown with a standard note-head.
Curved lines 'gainst square glass

Sam Cave (b.1987)

let all sympathetic resonance ring, except where marked
damp all strings

mix fingerings ad. lib, intersperse the semitone occasionally...
start pp

let all sympathetic resonance ring, except where marked

cresc. as resonance builds...

PPP thumb brush
allow to decay to silence
before playing next bass note

faster progress through bass notes, build the resonance...

cresc. and accel...

mute strings sequentially leaving
alone
position nom.

secco

LV 5

mp
cresc molto

brush with thumb
LV sempre

fff
dim.

allow all resonances to ring

pp

molto legato

mf
decel. tremolo

G

harm XII

f
decel. tremolo

fff

brush with thumb
LV sempre

44 a gently lilting song, hazily remembered

until end with slow, warming vib. throughout

rit. un poco, dying away

art. harm.

art. harm.
Reflections on Blue
(2016)

For Nine Players
C.18’

Sam Cave (b.1987)
Instrumentation:

Two wind trios and a ‘rhythm section’ tuned and arranged as follows:

Soprano Recorder [+40 cents] (doubling Ride Cymbal played with one hot rod)
Oboe [+20 cents] (doubling Hit-Hat played with one foot)
Alto Flute [-30 cents] (doubling Hit-Hat played with one foot)

Flute (doubling Ride Cymbal played with one hot rod)
Soprano Saxophone (doubling Hit-Hat played with one foot)
Clarinet in Bb (doubling Hit-Hat played with one foot)

Guitar, tuned as follows:

Score in C with the usual octave transpositions. The basic tuning of the microtonal wind trio and the microtonal strings of the guitar are not shown on the score, in this sense the score shows ‘fingered pitch’ for these instruments and sounding pitch for the others and the equally tempered strings of the guitar. Natural harmonics for the guitar are notated at sounding pitch and for the double bass they are notated at approximate fingered pitch with the desired sounding pitch shown in parentheses.

Duration: c.18 minutes

Programme Note

Reflections on Blue is an attempt to capture the spirit, outlook and acquired instinct of improvising Jazz musicians. Many of the materials for each instrument were improvised ‘by my hand’ whilst sketching the work and these disparate characters are unified by a common harmonic and rhythmic structure underpinned by the rhythm section of the guitar, piano and double bass. Reflections on Blue owes much to the spirit and aesthetic outlook of the ‘modal jazz’ movement of the late 1950s and early 1960s and is particularly inspired by Bill Evans’ liner notes to the seminal Kind of Blue album.
“There is a Japanese visual art in which the artists is forced to be spontaneous. He must paint on a thin stretched parchment with a special brush and black water paint in such a way that an unnatural or interrupted stroke will destroy the line or break through the parchment. Erasures or changes are impossible. These artists [sic] must practise a particular discipline that of allowing the idea to express itself in communication with their hands in such a direct way that deliberation cannot interfere. The resulting pictures lack the complex composition and textures of ordinary painting, but it is said that those who see will find something captured that escapes explanation. The conviction that direct deed is the most meaningful reflection”  Bill Evans, liner notes from Kind of Blue (1959)

Performance Directions:

Role of the conductor
Aside from the usual responsibilities the conductor should communicate with the pianist to decide when to move to the next ‘bar’ in the decay controlled sections of the piece (such as rehearsal letter B. The conductor should also keep track of the length of the improvised section at b.192 and synchronise the ensemble for the start of rehearsal letter M.

Arrangement of the ensemble

```
  Fl.
  S. Sax.
  Clr.
  Gtr.
  Pho.
  Db.
  Al Fl.
  Ob.
  S. Rec.
  Cond.
```
Reflections on Blue

= 60 lyrical and warm, yet distant and veiled

Soprano Recorder

Oboe

Alto Flute

Flute

Soprano Saxophone

Clarinet in B

Guitar

Piano

Double Bass

Sam Cave (b.1987)
A
appear from clarinet
roll flat
drift slightly sharp
pause until the first piano chord of each 'bar' is inaudible

Ride Cymbal

pitch bend and vib. ad lib.

p breathe where necessary

repeat ad lib.

slow, wide vib.

repeat when inaudible

slow, wide vib.

repeat when inaudible

pizz.
S. Rec. Soprano Recorder

Hi-Ht.

A. Fl. Alto Flute

Fl.

Sop. Sax.

Cl.

Gtr.

Pno.

Db.
slightly more focused sound
pause until the first piano chord of each 'bar' is inaudible

G

S. Rec.

Ob.

A. Fl.

Ride Cymbal

Sop. Sax.

Hi-Hat

Gtr.

Pno.

Db.
\( \text{\textit{70 in tempo again, bright and metallic}} \)
S. Rec.

Ob.

A. Fl.

Fl.

Sop. Sax.

Cl.

Gtr.

Pno.

Db.

K energetic and metallic

To Hi-Ht.

tasto and vib.

pizz.

slow wide vib.

energetic and metallic

K energetic and metallic
S. Rec.  
Ob.  
A. Fl.  
Fl.  
Sop. Sax.  
Cl.  
Gtr.  
Pno.  
Db.  

calmer and more expansive
modal improvisation c.a. 40secs - 1minute

repeat the boxed rhythm to accompany flute solo, ornament the rhythm in response to the rhythm section (Gtr. Pno. Db.)

improvised 'jazz' solo using the given 'mode', make use of ideas given from rehearsal letter L

use the given 'mode', in any octave, to form a backing for the flute solo with the piano and double bass, make use of material given from rehearsal letter L to fashion a 'walking bass', respond to the other players in the manner of a jazz quartet
M \( \frac{2}{4} \) from another place, searching

\( \text{Ride Cymbal} \) p

\( \text{Hi-Hat} \) p

\( \text{Hi-Hat} \) p

\( \text{Hi-Hat} \) p

\( \text{Flute} \) p

\( \text{Hi-Hat} \) p

\( \text{Hi-Hat} \) p

\( \text{Hi-Hat} \) p

\( \text{Guitar} \) mp

\( \text{Piano} \) rich, warm sound

\( \text{Double Bass} \) mp

\( \text{Piano} \) ped. sempre

\( \text{Double Bass} \) vib.
...BUT THEIR STILLNESS SHOWED PLAINLY...
(2017)

For clarinet in B♭, violin, viola and violoncello
C.9’30”

Sam Cave (b.1987)
**Instrumentation**
Clarinet in Bb
Violin
Viola
Violoncello

**Notational Considerations**
Score in C with the following exceptions:

- Natural harmonics for the strings are notated at approximate fingered pitch with the desired sounding pitch of each harmonic shown in parentheses at its first occurrence.
- Notes played on the retuned D string of the violin and G string of the viola are notated at fingered pitch on the main stave with the sounding pitch of each note shown on a small subsidiary stave at its first occurrence.

**Duration:** c.9 minutes 30 seconds
Other notational considerations

Clarinet in Bb
Straight lines between pitches indicate pitch bending between the two notes. The exact amount of pitch bend is often intended to pre-empt or match a pitch from one of the other instruments, which instrument to match pitches with is often indicated in the score and a desired amount of pitch movement is often indicated in cents. Strength of vibrato (when specified) is shown by the relative thickness of the black wavy line. When no indication of the nature of the vibrato is given, less is better than more – especially when no vibrato can be heard in the string parts (e.g. when they are playing harmonics).

Violin
Scordatura:

Deviations from equal temperament are shown in cents - the D string is retuned to C 50 cents sharp. Strength of vibrato (when specified) is shown by the relative thickness of the black ‘wavy’ line. When no indication of the nature of the vibrato is given, less is better than more. Glissandi on natural harmonics should be performed in a slow, smooth and ethereal manner. The dotted crescendo and decrescendo markings are intended to be a guide as to varying amounts of bow pressure, it is intended that this variation will bring out different partials and harmonics. The left hand tremolo between a harmonic and the open string should be fast and unmeasured creating a hushed, fluttering effect.
Deviations from equal temperament are shown in cents – the G string is retuned to a G 20 cents flat. Strength of vibrato (when specified) is shown by the relative thickness of the black ‘wavy’ line. When no indication of the nature of the vibrato is given, less is better than more. The ‘bow on bridge’ instruction at b.123 should produce an indeterminate, quiet, very high ‘white noise’. The left hand tremolo between a harmonic and the open string should be fast and unmeasured creating a hushed, fluttering effect. Left hand pizzicato is indicated with a ‘+’ and the string should be plucked near the halfway point to give a sweet sound.

Violoncello
Strength of vibrato (when specified) is shown by the relative thickness of the black wavy line. When no indication of the nature of the vibrato is given, less is better than more. Glissandi on natural harmonics should be performed in a slow, smooth and ethereal manner. The dotted crescendo and decrescendo markings are intended to be a guide as to varying amounts of bow pressure, it is intended that this variation will bring out different partials and harmonics. The left hand tremolo between a harmonic and the open string should be fast and unmeasured creating a hushed, fluttering effect. Left hand pizzicato is indicated with a ‘+’ and the string should be plucked near the halfway point to give a sweet sound.

…but their stillness showed plainly… was written for the Distractfold Ensemble for their visit to Brunel University in May 2017.
...but their stillness showed plainly...

Sam Cave
(b.1987)
Cl.  
Vln.  
Vla.  
Vc.  

44  
\( \text{p} \)  
\( \text{mp} \)  
\( \text{pp} \)  
\( \text{mp} \)  

\( \text{sul tasto} \)  
\( \text{sul D} \)  
\( \text{norm sul G} \)  
\( \text{increase vib with dynamic swells} \)  
\( \text{fast, unmeasured tremolo} \)  

\( \text{sul C} \)  
\( \text{slow warm vib} \)  
\( \text{sul tasto} \)  

\( \text{sul pont} \)  
\( \text{sul tasto} \)  

\( \text{F} \)  
\( \text{=50} \)  

\( \text{sul tasto} \)  
\( \text{p} \)  

\( \text{mf} \)  

\( \text{sul pont} \)  
\( \text{sul pont} \)  

\( \text{norm, no vib at all} \)  

\( \text{quite long pause, but still within 'memory' of the violin e} \)
absolutely no vib

slow bend

sul pont
left hand 'ad lib' trem by bouncing at the harmonic node

left hand 'ad lib' trem by bouncing at the harmonic node

molto pont during trem
grace notes not too fast

left hand 'ad lib' trem by bouncing at the harmonic node

match cello
Cl. Vln. Vla. Vc.

\( \text{q} = 44 \)

107

Vln.

sul pont sul D

PP

Vla.

sul pont sul D

PP

Vc.

gliss on natural harmonics

PP

sul tasto

sul pont

Cl.

accents only very slight

sul D

PP

sul tasto

sul pont

sul G

norm

PPP

Ve.
Cl. Vln. Vla. Vc.

121

pp

hold until silent...

Cl. Vln. Vla. Vc.

128

pp

molto pont
...BUT THEIR STILLNESS SHOWED PLAINLY...

(2017)

Version For String Quartet
C.9’30”

Sam Cave (b.1987)
Instrumentation
Violin 1
Violin 2
Viola
Violoncello

Duration: c.9 minutes 30 seconds

Notational Considerations
Score in C with the following exceptions:
- Natural harmonics for the strings are notated at approximate fingered pitch with the desired sounding pitch of each harmonic shown in parentheses at its first occurrence.
- Notes played on the retuned D string of the violin and G string of the viola are notated at fingered pitch on the main stave with the sounding pitch of each note shown on a small subsidiary stave at its first occurrence.
Violins I and II
Scordatura:

\[
\begin{array}{c}
\text{\includegraphics[height=2cm]{diagram1}}
\end{array}
\]

Deviations from equal temperament are shown in cents. For example, the D string is retuned to C 50 cents sharp. Specific string indications should be observed. Strength of vibrato (when specified) is shown by the relative thickness of the black ‘wavy’ line. When no indication of the nature of the vibrato is given, less is better than more. Glissandi on natural harmonics should be performed in a slow, smooth and ethereal manner. The dotted crescendo and decrescendo markings are intended to be a guide as to varying amounts of bow pressure, it is intended that this variation will bring out different partials and harmonics.

Viola
Scordatura:

\[
\begin{array}{c}
\text{\includegraphics[height=2cm]{diagram2}}
\end{array}
\]

Deviations from equal temperament are shown in cents. In the case of the viola the G string is retuned to G 20 cents flat. Specific string indications should be observed. Strength of vibrato (when specified) is shown by the relative thickness of the black ‘wavy’ line. When no indication of the nature of the vibrato is given, less is better than more. The ‘bow on bridge’ instruction at b.123 should produce an indeterminate, quiet, very high ‘white noise’. The left hand tremolo between a harmonic and the open string should be fast and unmeasured creating a hushed, fluttering effect. Left hand pizzicato is indicated with a ‘+’ and the string should be plucked near the halfway point to give a sweet sound.
Violoncello
Specific string indications should be observed. Strength of vibrato (when specified) is shown by the relative thickness of the black wavy line. When no indication of the nature of the vibrato is given, less is better than more. Glissandi on natural harmonics should be performed in a slow, smooth and ethereal manner. The dotted crescendo and decrescendo markings are intended to be a guide as to varying amounts of bow pressure, it is intended that this variation will bring out different partials and harmonics. The left hand tremolo between a harmonic and the open string should be fast and unmeasured creating a hushed, fluttering effect. Left hand pizzicato is indicated with a ‘+’ and the string should be plucked near the halfway point to give a sweet sound.

…but their stillness showed plainly… was written for the Distractfold Ensemble for their workshop at Brunel University in May 2017. This version for String Quartet was written for the Manon Quartet in anticipation of their recording day at Brunel in June 2017.
...but their stillness showed plainly...

version for string quartet

Sam Cave
(b.1987)
Vln. 1
\( \text{sul A, match violin 2 pitch} \)

Vln. 2
\( \text{non vib. match fade of violin 1} \)

Vla.
\( \text{con sord. non vib.} \)

Vc.
\( \text{con sord. senza sord. sul tasto} \)

\( \text{Violin 1 (sounding)} \)
\( \text{varying amounts of excessive bow pressure to activate harmonics} \)
Vln. 1

fast, unmeasured tremolo between strings

sul A

sul E

increase vib. with dynamic swells

Vln. 2

sul tasto

sul D

norm sul G

increase vib. with dynamic swells

sul C

slow warm vib.

Vla.

sul tasto

p

mp

Vc.

sul pont — sul tasto

sul pont

p

sim

---

Vln. 1

F = 50

Vln. 2

sul tasto

mf

p

Vla.

p norm, no vib. at all

Vc.

sul tasto

p

---

quite long pause, but still within 'memory' of the violin e

norm, no vib. at all
At the edge of his dreams...
(2017)

For clarinet in B♭, violin, violoncello, Guitar, Accordion, Piano
And optional Church Bells in G
C.8-10'

Sam Cave (b.1987)
Instrumentation
Clarinet in Bb
Violin
Violoncello
Guitar (off-stage)
Accordion
Piano

Score in C with the usual octave transpositions
Duration: c.8-10 minutes

At the edge of his dreams... was commissioned by Corentin Chassard for the Thornham Summer Festival 2017 and was premiered on July 22\textsuperscript{nd} 2017 at Thornham Magna, Suffolk by the festival ensemble conducted by Jon Hargreaves.
Bells
These can only be included when the church has a ground floor ring of 6 bells in G. The bells are only chimed in this piece – not rung ‘up’ and full circle. They are numbered from 1 (highest pitch, the treble) to 6 (lowest pitch, the tenor). The rhythms given to the bells should not be attempted accurately – they are to show the musical function of the bells (e.g. an upbeat, a background ‘wash’). There will likely be a delay between cueing the bells and hearing them sound in the church – the conductor should take account of this. When chimed in this way church bells are rhythmically imprecise – this is to be embraced and is part of the expressive fabric of this piece.

Clarinet in Bb
Straight lines between pitches indicate pitch-bending between the two notes. The exact amount of pitch bend is often intended to pre-empt or match a pitch from one of the other instruments. Strength of vibrato (when specified) is shown by the relative thickness of the black wavy line. When no indication of the nature of the vibrato is given, less is better than more – especially when no vibrato can be heard in the string parts (e.g. when they are playing harmonics).

Violin
Natural harmonics are notated at approximate fingered pitch with the desired sounding pitch shown in parentheses. Specific string indications should be observed, especially for harmonics. Strength of vibrato (when specified) is shown by the relative thickness of the black wavy line. When no indication of the nature of the vibrato is given, less is better than more. Glissandi should be performed in a smooth and ethereal manner.
Violoncello
Harmonics are notated at approximate fingered pitch with the desired sounding pitch shown in parentheses. Specific string indications should be observed, especially for harmonics. Strength of vibrato (when specified) is shown by the relative thickness of the black wavy line. When no indication of the nature of the vibrato is given, less is better than more. Glissandi on natural harmonics, and in general, should be performed in a slow, smooth and ethereal manner. The dotted crescendo and decrescendo markings are intended to be a guide as to varying amounts of bow pressure, it is intended that this variation will bring out different partials and harmonics.

Guitar (off-stage)
Scordatura:

The guitar functions like a ghost of the piano. Its chords are held until they are inaudible to the player; they are then repeated and held again, the guitarist then moves to the next chord. Over these chords there are repeating fragments that continue until the guitar changes chord. The conductor may help indicate when the guitar has changed chords but must not beat time or emphatically cue players during this section of the piece (rehearsal letters F-G)
**Accordion**
Strength of vibrato (when specified) is shown by the relative thickness of the black wavy line. When no indication of the nature of the vibrato is given, less is better than more – especially if no vibrato can be heard in the other parts at that moment (e.g. when the strings are playing harmonics). The glissando in bar 37 can be performed in any practical way – for example, it could begin as a chromatic scale in the left hand and then become a ‘normal’ glissando as the pitch moves to the right hand.

**Piano**
In some moments the pianist is required to cue the rest of the ensemble to continue the piece. At the points indicated the piano should hold its chord until the sound becomes inaudible. At this moment the player cues the ensemble and conductor to continue the next bar ‘a tempo’. During the held chords there are usually repeated and varying fragments played by some of the other instruments – these are played ‘free time’ and continue until the piano cues the next bar. It does not matter if the final iterations of the fragments overlap into the following ‘a tempo’ bar
At the edge of his dreams...

Sam Cave
(b.1987)

At the edge of his dreams...
Cl.

lip bend

gentle vib. and pitch (lip) bend, cont. ad lib. until piano cue, breathe when necessary

Vln.

p<-

gentle vib. and pitch gliss, cont. ad lib. until piano cue

Vc.

wait for piano to cue the next bar

Accord.

p

sparsely repeat and vary ad lib. until piano cue

Pno.

p

hold until piano cue

cue next bar when chord inaudible
wait for piano to cue the next bar
wait for piano to cue the next bar
wait until inaudible
cue next bar when final chord inaudible
swell dynamics ad lib
(never less than forte)
sempre sul pont.
sim
short pause
gliss.
This sheet music fragment is in the key of F and features the following dynamics and instructions:

- **Cl.**: The dynamics are marked with **pp** in the beginning, indicating a soft level. There is also a σ notation indicating a forte (loud) section, which should be played after the repeat sign (sim). The section changes to **ppp** (very soft) after the repeat sign is reached.

- **Vln.**: The section includes **ppp** (very soft) dynamics, which should be repeated until the guitar changes chord. There are also instructions to play sul G (sotto la testa) and to use sim (simile) markings.

- **Vc.**: This section indicates **pp** (pianissimo) dynamics, which should be repeated until the guitar changes chord. There is also a σ notation indicating a forte (loud) section, which should be played after the repeat sign (sim). The section changes to **ppp** (very soft) after the repeat sign is reached.

- **Gtr.**: The section includes **ppp** (very soft) dynamics, which should be repeated when the chord is inaudible. There are also instructions to play sul D, A, and E and to use sim (simile) markings.

- **Accord.**: This section indicates **ppp** (very soft) dynamics, which should be repeated until the guitar changes chord.

- **Pno.**: The section includes **ppp** (very soft) dynamics, which should be repeated until the guitar changes chord.
G a tempo \( \text{\textit{\textit{J}}=60} \)

Cl. \( \text{mp} \)

Vln. (sul pont. sul D)

Vc.

Gtr. \( \text{mp} \)

Accord. \( \text{mp} \)

Pno.

\( \text{fff} \) pedal down until the end

\( \text{a little vib. now and again} \)

\( \text{repeat until guitar changes chord} \)

\( \text{enter after accord.} \)

\( \text{repeat until guitar changes chord} \)

\( \text{repeat until guitar changes chord} \)

\( \text{a little vib. now and again} \)

\( \text{enter after cl.} \)

\( \text{pedal down until the end} \)
chime 3,5 now and then until the end

match fade of Vln.
Cl.

Vln.

Vc.

Accord.

Pno.

match fade of Cl.
sul E

sul tasto flautando

sul D

ord.

sul pont.

mp

pp

ff
Like Trees in November
(2016-18)

Variations for solo piano
C20’

Sam Cave (b.1987)
Score in C

*Like Trees in November* explores the resonance of the piano in five movements. All of the, sometimes disparate, elements of the piece are united by their preoccupation with decaying resonance and bell-like sounds. Like much of my music this piece is searching for a fragile intensity, a meditative 'otherness' that seeks to hint at a world built entirely of sound.

This piece employs many moments of intricate pedaling. Some sustain certain pitches whilst others decay or to 'catch' the fleeting resonance of a natural harmonic. In movements II and IV the pedal is used to create a internal rhythm within the decaying resonance of chords. All essential pedalling instructions are included on the score. Where no pedal marks are given the use of the pedal is at the discretion of the performer.

Several kinds of pauses are used in this piece. Unless specified otherwise in the score the general convention is as follow:

- allow the note(s) to decay to silence before continuing
- medium length, 'standard' pause - exact length determined by the performer
- short pause - exact length determined by the performer

*Like Trees in November* was commissioned by Nikolai Varma. I am, as ever, hugely grateful for his support.
Like Trees in November

Sam Cave
(b.1987)

Piano

\[\text{pause until harmonic is inaudible}\]

\[\text{una corda}\]

\[\text{hold strike notes until inaudible}\]

\[\text{una corda}\]

\[\text{repeat when inaudible}\]

\[\text{hold until inaudible, bring out boxed notes}\]

\[\text{una corda}\]
hold until silent

cont. until end of bar

pedal sim.

* only damp a very small amount of resonance with each lift of the pedal
\( \text{III} \)

\( \text{} = 180 \text{ shimmering, slightly fragile} \)

Red sempre
rall.

a tempo ($\cdot = 180$)

hold until silent
rall.

18

\[ \begin{array}{c}
\text{silently retain 'A' with finger} \\
\text{hold until silent}
\end{array} \]

\[ \begin{array}{c}
\text{gradually release pedal} \\
\text{to leave 'A' alone}
\end{array} \]

\[ \begin{array}{c}
\text{\textbf{B} fragile, hushed yet intense} \\
\text{sim.}
\end{array} \]

19

\[ \begin{array}{c}
\text{complete each gesture before the boxed guide tone} \\
\text{becomes inaudible}
\end{array} \]

\[ \begin{array}{c}
\text{\textit{pp} \quad \text{\textit{p}} \quad \text{\textit{ppp}}}
\end{array} \]

\[ \begin{array}{c}
\text{\textbf{Rd.} \quad \textit{sempre}}
\end{array} \]
nearly tempo primo (\( \cdot=140 \)), more unstable than before, wilder
repeat and gradually become two trills
gradually depress pedal again
silently depress pitches shown in box

gradually release pedal to leave final chord
IV

\( \text{mp} \)

* only damp a very small amount of resonance with each lift of the pedal

cont. given rhythm until end of bar

pedal sim.
V

sounding pitch

ring until silent

Pno.

catch resonance 'ghost'

with pedal

silent prep.

sim.

sim.

p

pno.

ring until silent

silence prep.

pno.

catch resonance 'ghost'

with pedal

silent prep.

sim.

sim.

pno.

ring until silent

silence prep.

pno.

catch resonance 'ghost'

with pedal

silent prep.

sim.

sim.

pno.

ring until silent

silence prep.

pno.

catch resonance 'ghost'

with pedal

silent prep.

sim.

sim.

pno.

ring until silent

silence prep.

pno.

catch resonance 'ghost'

with pedal

silent prep.

sim.

sim.

pno.

ring until silent

silence prep.

pno.

catch resonance 'ghost'

with pedal

silent prep.

sim.

sim.

pno.

ring until silent

silence prep.

pno.

catch resonance 'ghost'

with pedal

silent prep.

sim.

sim.
catch harm.
with pedal

p

f

pp

p

ff

A

e

= 62

pp

f

A
ring until silent

\* pause just long enough to allow harmonic to speak before continuing
sim. and grow from previous harmonics
at least 10"

after at least 5"

5"  4"  2"  8"

pp  pp  mp

0.5"  1"  1"

pp  mp PPP
allow resonance to decay naturally, then release prepared notes...
Refracted Meditations III
(2018)

For Solo Guitar
C3'

Sam Cave (b. 1987)
Score in C with the usual octave transpositions

Duration: c.3 minutes

Programme Note
‘Refracted Meditations’ is an unfinished set of short meditative pieces for solo guitar. The first of these was written for the Swedish guitarist Johan Lofving in 2008 and I have added two more in the following decade. Decaying resonance controls most of its rhythms and gestures and I have attempted to explore the timbral possibilities of natural harmonics and muted pizzicato plucking by altering the point of contact with the string. These inspirations are gathered together, filtered through my harmonic language, and tempered by my love for the intimate and evocative nature of the guitar – an instrument that is simultaneously beguilingly fragile and deeply intense.

SC

Notational Considerations
The pauses in the top stave at rehearsal letters A and B indicate a short delay between the striking of the decaying chord in the bottom stave and the commencement of the repeating fragment in the upper stave. In practice the delay should be minimal and the varying lengths of pause should be tempered by the performers discretion having taken into account the resonance of the instrument and the hall.

‘Fake pizz’ is achieved by plucking an artificial harmonic with the usual right hand technique but positioning the right hand a short distance away from the harmonic node, like an artificial harmonic ‘done badly’. Very often in this piece the ‘fake pizz’ gradually morphs into a standard artificial harmonic by moving the plucking point of the right hand closer and closer to the harmonic node.

Refracted Meditations III is an arrangement of the first movement of my 2016-2018 variations for solo piano ...like trees in November... and was first performed at Brunel University on March 2nd 2018 by Sam Cave. Refracted Meditations III also features on the 2019 CD Refracted Resonance by Sam Cave (Metier, msv 28586)
Refracted Meditations III

Sam Cave
(b.1987)

\(\text{\(\hat{6}\) = G}
\)
capo at II

pause until harmonic is inaudible

'fake pizz' is created by plucking an art. harm slightly away from the harmonic node

hold strike notes until inaudible

repeat when inaudible

hold until inaudible, bring out boxed notes
remove capo
hold until harmonic is inaudible

C

fake pizz — norm art. harm

repeat when inaudible

‘tap’ rh in fast unmeasured trem

hold until harmonic inaudible

mix® and ®harms
...ON PLAIN AIR...

(2017-18)

For alto recorder, violin, cello and theorbo
C.10’

Sam Cave (b.1987)
**Instrumentation**
Alto recorder  
Violin  
Violoncello  
Theorbo

Score in C at modern concert pitch with the theorbo written one octave above sounding pitch. This piece was intended to be performed at baroque pitch on period instruments with A=415hz. This piece can, however, be performed at A=440hz on a modern recorder and modern string instruments with the theorbo tuned to A=440hz.

**Duration:** c.10 minutes

**Notational Considerations:** All performance instructions are given ‘in situ’ on the score.

**Theorbo tuning:** The tuning of the theorbo is standard except for the seventh string, which should be tuned to G#.

**Programme Note**
...on plain air... takes inspiration from David Harsent’s poem ‘Bowland Beth’ which, in part, describes the inexplicable yet mesmerising swoops, twists, and turns of a hen harrier in the sky. I was fascinated by the idea of watching Beth in the sky and wondering about the motivations behind her movements – is she ‘skydancing’ for pleasure, out of instinct, or is she compelled to by an instruction from her mate or peers? In turn I wondered how the ambiguity in the motivations of Bowland Beth might be transferred to the interplay between 4 musicians watched by an audience who in turn wonder about the impetus for their actions – when are they improvising, when are they instinctively responding to each other and when are they playing fully scored material?

...on plain air... was written for Improviso and premiered by them on 1st February 2019 at Brunel University, London. I am extremely grateful to them for their enormous skill and fearless boldness as a period instrument ensemble engaging with new music.
...on plain air...

Sam Cave
(b.1987)

* bar 1. Grace notes are unsynchronised, not too fast but generally even within each performer's individual tempo. Silences for this bar given in seconds
*2 natural harmonics for bowed strings are notated at approximate fingered pitch with desired sounding pitch shown in parentheses
*3 intensity and width of vibrato is indicated by the relative thickness of the black wavy line
flautando sul G

20-30” improvise phrases based on material in b.6-9
create upbeat for b.11

20-25” support recorder by varying boxed material
follow recorder for upbeat to b.11

20-30” follow recorder for upbeat to b.11

* see page one note on vibrato
*2 natural harmonics for the theorbo are notated at sounding pitch with a diamond notehead
*3 dotted crescendo/diminuendo indicates excessive amounts of bow pressure
play and vary boxed haripin now and then in response to Vln. vibrato

cont. varying vibrato ad lib. no variation in dynamic

non vib.

sul C, sul pont. sul A

mp

follow cello for upbeat to b.23

30-35" vary vib. again in response to rise and fall of cello gestures

follow cello for upbeat to b.23

30-35" connect and develop gestures from b.19-21

create upbeat for b.23

follow cello for upbeat to b.23
A. Rec.  

\[ \frac{4}{23} \]

Repeat changing order ad lib.

Very light, breathy sound

\[ \text{pp} \text{ singing with 'e' vowel sound} \]

Vln.  

\[ \frac{4}{23} \]

Repeat changing order ad lib.

Very light finger and bow pressure

\[ \text{cresc.} \]

\[ \text{mf} \]

\[ \text{ee} \]

\[ \text{pp sub} \]

Vc.  

\[ \frac{4}{23} \]

Repeat changing order ad lib.

Ord. finger pressure

\[ \text{pp} \text{ singing with 'o' vowel sound} \]

\[ \text{f} \]

\[ \text{loc.} \]

\[ \text{mf} \]

\[ \text{oh} \]

\[ \text{pp sub} \]

Th.  

\[ \frac{4}{23} \]

Repeat changing order ad lib.

Very light touch, lots of slurs

\[ \text{cresc.} \]

\[ \text{mf} \]

\[ \text{ah} \]

\[ \text{pp sub.} \]

24

Hold until theorbo cues the next bar, breathe where necessary

\[ \text{ee} \]

Change vowel sound slowly

\[ \text{oh} \]

\[ \text{pp sub} \]

25

\[ \text{E} \]

\[ \text{q} = \text{c.60} \]

\[ \text{pp} \text{ singing with 'a' vowel sound} \]

\[ \text{pp} \]

\[ \text{ppp} \]

* Pass the note to your voice

*2 Repeat when inaudible
* rehearsal letter F-G: Textural Chaconne. Each bar should be held for the approximate duration and until one player decides to move to their next note(s). Upon hearing a player change pitch(s) the others must move to their next note(s) to catch up. This 'moving ahead' and 'catching up' should be unsynchronised and performed without the players giving visual cues to one another. Occasional vibrato and dynamic fluctuations ad lib.
* rehearsal letter G-H: the decay of the theorbo chords controls the rate of progress through the section. All rhythmic durations show relative lengths of notes using a general 'timespace' principle in relation to the decaying theorbo chord.
A. Rec.

Vln.

Vc.

Tho.

\( \text{make octave with violin} \)

\( \text{gliss nat. harm.} \)

\( \text{sul A} \)

\( \text{sul pont.} \)

\( \text{molto pont. breaking up} \)

\( \text{pp} \)

\( \text{p} \)

\( \text{ord. sul G} \)

\( \text{ord. sul pont.} \)

\( \text{continue figuration} \)

\( \text{continue figuration} \)

\( \text{pont.} \)

\( \text{pont.} \)

\( \text{pont.} \)

\( \text{tasto} \)

\( \text{ord. jete sul G} \)

\( \text{ord. jete sul G} \)

\( \text{ord. jete sul pont.} \)

\( \text{ord. jete sul pont.} \)

\( \text{ord. jete sul pont.} \)

\( \text{ord. jete sul pont.} \)

\( \text{ord. jete sul pont.} \)

\( \text{ord. jete sul pont.} \)
* rehearsal letter N. Strings and recorder. Swell dynamic in the given rhythm so that the apex of the swell acts as the 'attack' of each rhythmic unit. Swell only between \( p \rightarrow mp \).
A. Rec.

Vln.

Vc.

Tho.

61

accel/decel. dynamic swelling ad lib. until b.69
sul tasto
sul pont. sul A

fast unmeasured trem.

64

molto pont.
ord.

sul D

fast unmeasured trem.

67

fff

molto pont.

fff

LH only

PPP
* rehearsal letter O. Strings and recorder. Swell dynamic in given rhythm as before only where indicated
...TO THE SAME FAILING LIGHT...
(2018)

For Accordion and String Quartet
C.15'

Sam Cave (b.1987)
**Instrumentation**
Accordion
Violin I
Violin II
Viola
Violoncello

Score in C
**Duration:** c.15 minutes

**Notational Considerations:** All performance instructions are given ‘in situ’ on the score.

**Programme Note:**

‘Here the accordion and each instrument of the string quartet are considered as parts of a larger whole, a ‘super instrument’. The opening solo accordion movement searches for a purity of voice that is then is taken up and augmented by a growing string ensemble in the second and third movements. In the final movement the quintet moves through textures that weave, layer, join and transcend the individual parts of the ensemble. As the music rises and falls, halts, moves and changes perspective, it strives for point of distant yet intense fragility.

I am extremely grateful to Simas Tankevičius, Konrad Levicki, Ugnė Petrauskaitė, Ignė Pikalavičiūtė, Irina Serotyuk, Michele Biano, Mandhira de Saram, Anna Brigham and Corentin Chassard for their wonderful playing, and for bringing my music to life in the various concerts and recording sessions that formed the development of this piece.’
S.C.

...the space that lies between them... was written as part of the Composer + Summer Academy and was recorded on June 23rd 2018 at ‘Egles’ sanatorija, Druskininkai, Lithuania by Michele Bianco (accordion) with sponsorship from the Lithuanian World Arts Council.

...touchless as they sleepwalk... I and II were recorded at LSO St Luke’s, London, UK on November 11th 2018 by Mandhira de Saram (violin), Anna Brigham (violin and viola) and Corentin Chassard (cello) with support from LSO Soundhub.

...to the same failing light... was written as part of the Composer + Summer Academy and was performed on June 22nd 2018 recorded on June 23rd 2018 at ‘Egles’ sanatorija, Druskininkai, Lithuania by Simas Tankevičius (violin), Konrad Levicki (violin), Ugnė Petrauskaitė (viola), Ignė Pikalavičiūtė (cello) and Irina Serotyuk (accordion) with sponsorship from the Lithuanian World Arts Council.
...to the same failing light...
I ...the space the lies between them...

\( \text{\textcolor{red}{\footnotesize \text{\textbf{\textit{\textbullet}}}}} \)

<table>
<thead>
<tr>
<th>Left Hand</th>
<th>Accord.</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>15</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
</tr>
</tbody>
</table>

\( \text{\textcolor{red}{\footnotesize \text{\textbf{\textit{\textbullet}}}}} \)

~*2 'attackless' emphasis with bellows performed by LH pushing the bellows. Sound of main note continuous.

\( \text{\textcolor{red}{\footnotesize \text{\textbf{\textit{\textbullet}}}}} \)

~*1 'attackless' emphasis with bellows performed by RH gently tapping on side of keyboard. Sound of main note continuous.

Sam Cave
(b.1987)

---

*1 'attackless' emphasis with bellows performed by RH gently tapping on side of keyboard. Sound of main note continuous.

*2 'attackless' emphasis with bellows performed by LH pushing the bellows. Sound of main note continuous.
move on in this bar

suspended animation again

no variation in dynamic until marked

swap and overlap B and Bb between hands ad lib.
continue swapping and overlapping B and Bb between LH ad RH ad lib.

* break the sound as little as possible

Left Hand molto legato

rhythmically free

strict rhythm

'fall off' the end of gliss.

attacca...
II ...touchless as they sleepwalk...(I)

Violin I

Violin II

Vln. I

Vln. II

Vln. I

Vln. II

Vln. I

Vln. II

Vln. I

Vln. II

Vln. I

Vln. II

*slur as much as possible throughout. Change bow as little as possible
*3 use first finger quasi glissando for lower voice until end
*2 intensity and width of vibrato is indicated by the relative thickness of the black wavy line
* textural bow tremolo. Create tremolo effect by sustaining D string whilst alternating between G and A strings. Change bow as little as possible. Tremolo not too fast and with a slightly uneven and ad lib. feel.
III ...touchless as they sleepwalk...(II)

* natural harmonics notated at approximate fingered pitch with desired sounding pitch shown in parentheses

*2 bow tremolo, see note on page 5

*4 ord. LH tremolo

*3 intensity and width of vibrato is indicated by the relative thickness of the black wavy line
* see page 6 note on vibrato
*2 see page 6 note on harmonics
*3 bow tremolo, see note on page 5
IV ...to the same failing light...

4

* natural harmonics notated at approximate fingered pitch with desired sounding pitch shown in parentheses
Accord.

Vln. I

Vln. II

Vla.

Vc.

M.M

senza sord.

sul pont.

pp sub.

mp

* intensity and width of vibrato is indicated by the relative thickness of the black wavy line

sul tasto

sul pont.

f
* see page 8 note on harmonics
sul tasto
quasi very slow trem.
cont. sim.
sul G with vib. sul D sim.
irregular trem. across the two strings
variable speed 'textural tremolo' - approximate rhythms show relationship of LH and RH tremolo speeds
continue varying tremolo speeds, never becoming faster than demisemiquaver

* see page 9 note on vibrato
swells in dynamic responding to the shape and intensity of vib of Vln. II

sul G flautando

no dynamic variation until marked

sul pont.

add RH during swells ad lib.

cont. varying amounts of vib. now and then
H

Accord.

Vln. I

Vln. II

Vla.

Vc.

pizz. half pizz. - 'bounce' RH index and/or middle fingers on string to produce 'ghost' Eb

half pizz. - 'bounce' RH index and/or middle fingers on string to produce 'ghost' D

cont. same rhythm

half pizz. - 'bounce' RH index and/or middle fingers on string to produce 'ghost' B
Accord.

Vln. I

Vln. II

Vla.

Vc.

half pizz. - 'bounce' RH index and/or middle fingers on string to produce 'ghost' C

Fine. 2018
...WITH MAGIC IN MY EYES...

(2019)

For children’s choir, piano and percussion
C.5’

SAM CAVE (b.1987)
**Instrumentation**
Children’s Choir (soprano and alto voices with one soprano soloist and three narrators taken from the choir)
Piano
Japanese Rin (tuned to B5 and played by the conductor, either by striking or ‘stirring’ the mallet around the outside of the bowl, these ‘stirrings’ can also be performed as a tremolo using the inside of the bowl if preferred)
Crotale (to be played by the soloist and each narrator in turn. A strung together pair of crotales tuned to B6 is ideal; if unavailable any pair of small prayer cymbals, such as tingshas, will suffice)

Score in C

**Duration:** a little under 5 minutes.

**Programme Note**

*Lyonesse is a fictional county that, according to Arthurian legend, bordered Cornwall before sinking beneath the ocean. All through my childhood growing up in Cornwall I was in awe of the beauty and majesty of the landscape, I was also fascinated by the many hundreds of tales of Pixies, witches, magic and myth that originate from that special county. Nowadays Cornwall has become like my own Lyonesse – a place to which I undertake long journeys in order to experience its magic and recapture my connection to the landscape. In this piece I have tried to capture some of the longing and mystery expressed in Hardy’s words as well as attempting to take the choir and listener on a transformative journey.*

*Sam Cave (London, UK, February 2019)*

‘...with magic in my eyes...’ was commissioned by George Holloway and the Holloway Children’s Choir (Tianjin) and was premiered by them on March 17th 2019 at the Cathay Future Concert Hall in Tianjin, China.
Stage Positions
There are four stage positions for the choir and soloists—when to adopt each position and when to move to the next position are shown in boxed text on the score.

Position 1

Notes on Position 1:
• S = soprano soloist. Soloist carries the crotales to all three positions.

- Equal mix of Sop. and Alto.
- Cond. with Rin
- Pno.
- S(a)
- S(b)
- S(c)

Audience
Position 2

Notes on Position 2:

• Position 2 has two forms – ‘Fluid’ and ‘Fixed’.
• In the ‘Fluid’ form the singers in the ‘random distribution’ are slowly moving at random inside the mass of singers like a murmuration of starlings.
• In the ‘Fixed’ form the singers halt their movements in whatever random distribution of soprano and alto they have reached. In this position they sing verse one of the poem (b.18-44).
• After completing their final line of text (b.17) the soloist moves from position S(c) to join the ‘murmuration’.
Notes on Position 4:
- N1,2,3 = three separate narrators. The crotales should be passed between the narrators.
• Sopranos should ideally be offstage. If this is not possible then facing away from the audience in the position shown will suffice.
• Alto divisi positions should reflect the division of parts in the score as left to right (note that this is not high, middle, low).

Notational Considerations

Opening section (b.1-17)
• The soloist intones the words of the first stanza on the given pitches in a slow but free rhythm. The spacing of the words in relation to metred score is a guideline for the pacing of the lines of text.
• The soprano and alto sections of the choir hum throughout this section. Breathing should be uncoordinated to allow for continuous sound.
• The piano and rin progress through this section according to the rhythm, metre and tempo given. Flexibility must be given to accommodate coinciding events with the soloist (e.g. b.8).
• The crossed note head in the soloist part indicates the striking of the crotales to introduce the text. All strikes of the crotales are allowed to ring indefinitely.

Final section (b.78-96)
• The three narrators speak the words of the final stanza. The spacing of the words in relation to the metered score does NOT give a guide to the pacing of the spoken words. They should be spoken slowly and with a sense of wonder but at each narrator’s own pace.
• The altos, piano and rin progress through this section according to the rhythm, metre and tempo given.
• The vowel sounds used by the divisi alto parts are ‘a’ as in ‘arm’, ‘ee’ as in ‘feet’ and ‘o’ as in ‘hot’.
• During b.91-96 the breathing of alto parts 1 and 3 should be uncoordinated to allow for continuous sound.
When I set out for Lyonnesse – Thomas Hardy (1840-1928)

When I set out for Lyonnesse,
A hundred miles away,
The rime was on the spray,
And starlight lit my lonesomeness
When I set out for Lyonnesse
A hundred miles away.

What would bechance at Lyonnesse
While I should sojourn there
No prophet durst declare,
Nor did the wisest wizard guess
What would bechance at Lyonnesse
While I should sojourn there.

When I came back from Lyonnesse
With magic in my eyes,
All marked with mute surmise
My radiance rare and fathomless,
When I came back from Lyonnesse
With magic in my eyes!
...with magic in my eyes...

When I set out for Ly-on-ness,

continuous humming until b.16, each singer breathe when necessary

---

a hundred miles away,

---

the rime was oh the spray,
and star-light lit my lonely
ness when I set out for Lyonnnesse a

'hunt' the rin with mallet

hundred miles a

non dim.
S. Solo

way.

S.

When

Rin

f

Pno.

mf

mp

A

I set out for Lyon

nessse, a hundred miles away,

the
rime was on the spray,

and starlight lit my
and starlight lit

lone-someness when I set
my lone-someness when I set
out for Lyonnaise

out for Lyonnaise

a hundred miles away.

S. Rin

Move to Position 3

way.
What would be chance at

What would

ly on nesse while I should.

be chance

so journ there no

at Ly on nesse,
prophet durst declare,

no prophet nor wise

nor did the wisest wizard

wiz

ard

guess what would be chance at

guess what would be -
Lyonnaise while I should chance at Lyonnaise

sojourn there.
onnassesse

slow tremolo to match semiquaver speed
When I came back from Lyonnesse

with magic in my eyes,
all marked with mute surmise
my radiance
rare and fathomless,

move between vowel sounds ad lib

each singer breathe where necessary

when I came back from Lyonnesse
with magic in my eyes!