VARIED REPETITION
A COLLECTION OF SUPPORTING TECHNIQUES

Yardley, Tomas Samuel

Awarding institution:
King's College London

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Varied Repetition: A Collection of Supporting Techniques

Thesis presented in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

King’s College London, 2016
Included Materials: Scores & Recordings

**Anaphora**
*Trumpet in D & Piano, ca. 9’30”*
Recorded by Simon Desbruslais and Clare Hammond
University of Surrey, Guildford on April 3rd 2014

**Moods, Metamorphosing**
*Trumpet in B-flat, Horn in F, Trombone, Clarinet in B-flat, Percussion & Piano, ca. 8’30”*
Recorded by the Lontano Ensemble

**Tre poesie per pianoforte**
*Piano, ca. 11’00”*
Recorded by Rob Keeley

**Plumes**
*Flute, Alto Flute & Clarinet in B-flat (doubling Bass Clarinet), ca. 10’30”*
Recorded by Rowland Sutherland, Helen Whitaker and Neyire Ashworth
King’s College Chapel, The Strand, London on July 22nd 2015

**Henhwedhel**
*Orchestra, ca. 16’00”*
Midi realization provided

**Silverpoint**
*Flute & String Quartet, ca. 10’00”*
Midi realization provided

**Two Graveyard Sonnets**
*Sonnet LXVII, Sonnet XLIV*
Recorded by Natalie Raybould and Dominic Saunders

**Lōtōs**
*Bass Flute ca. 9’00”*
Recorded by Helen Whitaker
King’s College Chapel, The Strand, London on May 22nd 2016
Abstract

A collection of techniques, featured in my portfolio of compositions, which aim to support or bring about the re-emergence of musical ideas or objects in varied form.

Chapter 1 observes the opposing approaches of Elliott Carter and Philip Glass towards musical repetition, and asserts my intention to use variation, or “varied repetition”, in order to place my own music at the centre of these two approaches. Compositional technique is then put forward as the means by which I intend to create varied repetition. I use Stravinsky’s rotational method as an example of such a technique. The introduction ends with some vital definitions.

Chapter 2 offers two techniques, which both use rhythmic rotation in order to create varied repetition.

Chapter 3 looks at a work by Harrison Birtwistle, which explores textural enrichment, and then develops the idea to apply two techniques that support variation.

Chapter 4 offers examples from the music of Michael Tippett as a starting point for my “broken sequence” technique.

Chapter 5 discusses one use of isorhythm by Olivier Messiaen and offers a further, personal approach towards the technique.

Chapter 6 gives two methods by which harmonic transformation is achieved through incremental intervallic alterations.

Chapter 7 takes a general glance at the musical language specific to the portfolio and suggests possible musical forebears.

Chapter 8 reiterates the importance of compositional techniques as observable mechanisms through which varied repetition can be achieved, and then details some of the developments my music has undergone during my doctorate. I conclude by asserting that the key to finding the middle ground between Elliott Carter and Philip Glass’s respective approaches towards repetition lies in the creation of a satisfying balance between repetition and variation.
Acknowledgments

Dr Rob Keeley, my supervisor, has made an immeasurable contribution to this thesis and to the accompanying portfolio of compositions. I am indebted to him for his vast knowledge of the subject matter, his enthusiastic and open-minded approach to teaching, and his willingness to participate in the premiere of pieces in this composition portfolio and beyond. I wish to express my enormous gratitude for all that he has done for me.

Without the performers and sound engineers involved in creating the accompanying CD, my compositions would not have been realized and this thesis would not have been possible. As such I have named all performers in the ‘Included Materials’ page, to show my gratitude for their enormous input towards my doctoral portfolio. I would also like to thank sound engineers Nicola Moro, Stefano Civetta and Adaq Khan for their part in making the recordings possible.

I would like to thank all those who have encouraged me during my PhD. These range from King’s College London staff who have advised me on certain issues, to friends and colleagues whose general discussions and advice have been both informative and enlightening.

Finally, I feel deeply indebted to my family for the sacrifices they have made in order to make my doctorate possible. In particular my parents and my wife have been incredible throughout, and I cannot thank them enough for all their support and encouragement not only during my doctorate, but also throughout my musical education.
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Chapter One: Introductory Statements

1.1. Repetition: Two Opposing Approaches

Elliott Carter on his music: “... none of the material ever repeats literally, and this is characteristic of many of my pieces ever since the First Quartet.”¹

Philip Glass on his music: “... music with repetitive structures ... based on the extended reiteration of brief, elegant melodic fragments.”²

The above quotations highlight the antithetical attitudes towards musical repetition held by two of the twentieth century’s foremost American composers. In the first instance Elliott Carter elected to eschew literal thematic or motivic repetition, and instead resolved to coordinate certain “coloristic, rhythmic, and textural effects” which in turn form “characteristic kinds of events that are distinct and followable”.³ Meanwhile Philip Glass embraced the minimalist compositional technique of limiting materials to just “a few elements”, and implementing a procedure of substantial repetition and additive or subtractive processes to engender a gradual metamorphosis.⁴

Although both composers have enjoyed a great deal of success, their compositional approaches have not been without criticism. In 1984 the American composer Ned Rorem launched a barbed attack on Elliott Carter’s music, viewing it as constructed less for the general listening public, and more for the music critic, who, “having scanned, parsed and otherwise dissected the...

non-sensual challenges, feels he’s accomplished something”.\textsuperscript{5} Rorem even goes so far as to criticize the “startling lack of charm” in Carter’s music, referring in part to the shortage of repetition: “Carter declares his dislike of it, which is just as well; we need listen to his work but once”.\textsuperscript{6} Even those more sympathetic to Carter’s music have taken issue with his compositional processes. In 2008 the American music critic and composer Greg Sandow accused Elliott Carter of being naïve in “thinking that people should care about his complexities”, stating that “very few will, no matter how much fun they can be for some of us who enjoy them”.\textsuperscript{7}

Philip Glass has also been on the receiving end of scathing attacks during his career. In a review of the Philip Glass Ensemble’s concert at the St Louis Art Museum on 2\textsuperscript{nd} May 1972, music critic Mildred Coon focused her attention on the monotony of the “never varying rhythms” and harmonies that “consisted of only the most elementary pitch relationships”.\textsuperscript{8} She continued: “Glass would occasionally nod his head to indicate to the other players that it was time to add another note to the theme, or to make some other slight change in the phrase. Then this phrase would be repeated several times... It went on for 90 minutes”.\textsuperscript{9} Other music critics, such as Yayoi Uno Everett, admit that the repetitive nature of Philip Glass’s music made it difficult to endure. While referring to a 1985 Philip Glass Ensemble concert, she recounts: “[t]hirty minutes into a concert of the Philip Glass Ensemble, many headed for the exit. I myself couldn’t take the relentlessly repetitive music”.\textsuperscript{10}

Carter’s thematically non-repeating music and Glass’s thematically extra-repetitive music are therefore both problematic. With Carter so reliant on distinct ‘characteristic events’ to create musical cohesion, it is debatable that his thematically non-repeating compositions are consistently ‘followable’, particularly in compositions such as the 3\textsuperscript{rd} String Quartet [1973], where those characteristic events are layered in such a way as to avoid clear synchronization. Meanwhile Carter

\textsuperscript{6} Ibid.
\textsuperscript{8} Coon, M., “Shrill, Monotonous Concert Tries Ears, Patience of Audience”, \textit{St. Louis Globe-Democrat}, 3\textsuperscript{rd} May 1972, 13A.
\textsuperscript{9} Ibid.
himself felt that the minimalism heard in the music of Glass and his contemporaries Steve Reich, Terry Riley and La Monte Young, required only a “passive engagement” on the part of the listener, due to its continual thematic reiterations.\(^ {11}\) The implication is that too much exact repetition renders the audience inactive as listeners.

### 1.2. Variation: In Search of the Middle Ground

This musical polarity provides the inspiration behind my own compositional approach. My intention is to place myself at an intermediate point in the non-repeating/extra-repetitive discussion by attempting to create a music that avoids being “fixated... and lacking in variation”,\(^ {12}\) but which simultaneously evades the creation of a sound-world where difference is “more evident than resemblance, thus annulling the sense of repetition”.\(^ {13}\) In short, it is vital to me that the listener hears the same thing, only differently.

My intention is to develop particular compositional techniques that concurrently generate or support both continuity and difference. In essence what I intend to create is a sense of varied repetition in each piece.

A composer who has used the kinds of techniques that I intend to develop is Igor Stravinsky, who, in the 1950s developed a method – initially discernable in Ernst Krenek’s *Lamentatio Jeremiae Prophetae* [1941-2] – of “rotations and transpositions” of a given hexachord.\(^ {14}\) Joseph N. Straus demonstrates how hexachordal rotational arrays function in Stravinsky’s *A Sermon, a Narrative, and a Prayer* [1960-1]:

“Stravinsky normally used only four, untransposed forms of the series: a prime (P), an inversion starting on the same first note (I), the retrograde of the Prime (R), and the inversion of the retrograde, starting on the same first note (IR). The second line of the array takes [the original] hexachord \(\{E_b, D, G_b, E, F, A_b\}\),

\(^{11}\) Boland, M., Link, J. ed: *Elliott Carter Studies*, 83.
\(^{13}\) Ibid.
rotates it to start on its second note (D♭, G♯, E♭, F, A♭, E♭), then transposes it up a semitone to start on E♭. The third line of the array rotates the hexachord to start on its third note (G♭, E, F♯, A♭, E♭, D♭) and transposes it down a minor third to start on E♭. The remaining lines proceed in similar fashion."^{15}

Figure 1: Straus’s grid outlining the rotational method in Stravinsky’s A Sermon, a Narrative, and a Prayer.

This rotational method, when combined with the rhythmic canon beginning in b. 227 (The Prayer) creates both repetition and variation. Here Stravinsky reiterates the common tones that the arrays contain, with the E♭ providing a “frequent point of arrival and departure in this passage”, while also often providing the link between adjacent rows.^{16} The rhythmic canon further serves to accentuate the sense of reiteration. Variation, however, is also created. First, the primary row is used as a rhythmically augmented accompaniment in the double basses, harp and piano, to underpin the addition of the choral basses. Secondly a set’s pitches may appear in any register, so the contours of phrases based on the same row may vary. This is observable in the alto soloist’s retrograded reiteration (b. 231) of the tenor soloist’s initial phrase (b. 227).

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^{16} Ibid, 195.
Figure 2: Straus’s example highlighting the arrays used in Stravinsky’s A Sermon, a Narrative, and a Prayer, bb. 227-239. See Figure 1 to cross-reference the rows.

The simultaneous creation of reiteration and variance evident in *A Sermon, a Narrative, and a Prayer* has provided me with a starting point in my search for compositional techniques that can help create varied repetition, and therefore place my music somewhere between Carter and Glass repetition-wise. It is thus my intention throughout the accompanying portfolio to offer a collection of techniques that I have either developed or conceived, which each in their own way support varied repetition.
1.3. **Defining Terms**

Certain terms are used interchangeably throughout this commentary in order to reinforce the notion that reiteration is exact in terms of pitch, rhythm, timbre and all other musical parameters. The terms ‘repetition’, ‘reiteration’ and ‘replication’ are therefore used synonymously, as are the terms ‘variation’ and ‘varied repetition’, which I use to identify any moment where a musical idea or object has taken on a new likeness, which makes it in some way audibly different from the original idea.

From this point onwards, that original musical idea or object will be referred to as the ‘parent-event’, and its varied reappearance will be referred to as the ‘variation-event’, in order to distinguish between the two concepts.

The term ‘supporting’ found in the title refers to the manner in which the technique discussed either generates through its own internal functions the emergence of a variation-event, or provides the underpinning material over which the variation-event can occur.

I use the terms ‘parameter’ and ‘aspect’ interchangeably to describe musical elements such as pitch, rhythm, dynamics etc.

The term ‘trigger’, as found in chapter three is used to refer to any instance where a musical event engenders a change in the music in some way. For example, an interval class 11 event could ‘trigger’ an so-far-unused note being introduced into the melody or harmony of a section of music.

Finally the abbreviations b. and bb. denote a single bar and two or more bars respectively, while superscript roman numerals after bar numbers denote specific beats in a bar, for example, b. 3\textsuperscript{iv} indicates the fourth beat of bar three.
Chapter Two: Variation Through Rotation

2.1. Rotation: Rhythms and Rests

“The more art is controlled, limited, worked-over, the more it is free...”

Igor Stravinsky

The use of Stravinsky’s rotational arrays occurred alongside the experimentations of several of his contemporaries with other serialized elements beyond pitch. Milton Babbitt, for example, adapted the serialist technique so that rhythmic units could themselves be serialized to create a Time Point System, so as to ‘mirror’ the octave as equal to zero (0/12) in the pitch domain. Joseph N. Straus demonstrates, using Babbitt’s Semi-Simple Variations [1956], how rhythms can be serialized:

“If the sixteenth-note is the basic rhythmic unit, there are sixteen different ways of partitioning (carving up) a quarter-note into attacks and silences. The theme in measures 1-6 is sixteen quarter-notes long, and each quarter-note is partitioned differently. That rhythmic series can be transformed in the usual serial manner: it can be played in retrograde, it can be inverted (its attacks replaced by rests and vice versa), and it can be retrograde-inverted. As the work progresses, each section is articulated by a transformation of the rhythmic series. In that way, the rhythmic serialization reinforces the form of the work.”

If an ordered set of hexachords can be rotated, then it stands to reason that a rhythmic series, or even Babbit’s Time Point System as described above, could also undergo various rotations or other permutations. Rhythmic arrays thus form the first technique to be explored in the accompanying portfolio.

17 Straus, J.N., Stravinsky’s Late Music, 29.
Figure 3: Adaptation of Straus’s rhythmic reduction of Milton Babbitt’s opening theme from Semi-Simple Variations.

2.2. Rhythmic Arrays: Anaphora

The notion of constantly recycled musical ideas forms the core principle behind Anaphora for D-trumpet and piano. Here an ever-shifting (but always-familiar) sound-world is created in which themes established in the initial passages of the work are recycled, with varying degrees of similarity.

In particular, rhythmic arrays feature heavily during bb. 111-130. These appear in a much simpler form, however, than the serialized rhythms in Semi-Simple Variations, as the intention was to create a much more immediately audible sense of patterning. Therefore, in this section of the piece, the quaver is the basic rhythmic unit, while the series established uses sixteen quavers, including rests. With each rotation, the final five quavers of the previous set are rotated to form the initial pitch of its successor. There are eight rotations between bb. 111-126, before the series breaks down and dissipates into the following musical material. Figure 4 shows all the rotations of the initial series.

The series first appears in the left hand of the piano in b. 111, during which the right hand echoes the music heard in the trumpet part during the previous 10 bars (Soave, calmo). The technique is then reproduced in b. 115 in the right hand. The result is quasi-imitative, and offers a platform for previous ideas explored earlier in the piece to reappear in altered states, and to interrupt the arrays as they progress.
The final five quaver-notes/-rests of each row are rotated to form the initial pitches of the following set.

A number of modifications are then made, which both aid the continuity of the piano part and bring about a series of interruptions to the arrays. From the beginning of b. 111, the pitches in the left hand of the piano shift freely, independently of the rhythmic series, between octaves and tritones, and very occasionally other intervals in addition. This harmonic freedom, which is intended to oppose the initial rigour of the rotational scheme, continues as the technique is initiated in the right hand in b. 115, at which point a small number of rests are replaced by octave or tritone dyads held from the previous quaver. This does not affect the rotations of the series, but does allow for tension to build during the section, as this signals the beginning of the dissipation of the sets. Finally several allusions to the main theme of the piece bring about the gradual disintegration of the rotational arrays, which have all but vanished by b. 127.
The main motif (shown in Figure 5 and initially heard in bb. 17-18) is first alluded to (during the Ritmico, con tensione section) in bb. 117-118, where it is passed from the piano to the trumpet. A second allusion occurs in b. 121, containing a further motivic exchange between the two instruments. Between these first two manifestations of the motif the pitch centre fluctuates, briefly settling on E♭ between bb. 121-124, before a continual chromatic-descent is heard in the left hand towards the E♭ in bb. 128. In b. 126 the trumpet alone carries the third allusion, while the piano’s right-hand crotchet triplets signal a near-total breakdown of the arrays, and after the ensuing climax the music shifts its focus onto a varied reappearance of the material heard in bb 10-16, in b. 131. Figures 6 & 7 give the initial two allusions to the main motif, while Figure 8 details all of the increasing deviations from the arrays laid out in Figure 4.
Throughout this section, one can observe a clear, simple appropriation of rotational arrays, not as a means of selecting moments of attack or silence in order to generate form, but as a supporting technique for the reemergence of particular motivic ideas. In this instance, rather than relying fully on cyclical developments or the occurrence of mutations during the process of self-replication, the technique provides the scaffolding with which to aid the various reconstructions of a musical idea. It should be noted that, just as the scaffolding around a building provides only a temporary structure, the technique here also has a fleeting presence. Thus in the case of *Anaphora* the technique provides a short-lived platform for varied repetition.
**Figure 8:** Anaphora, piano, bb. 111-126. The increasing breakdown of the arrays. Where the rhythmic durations are true to the arrays, the sets are given on one-line staves. The 5-line staves show the interruptions to the arrays and the pitches of those interruptions. These include places where rests are replaced by suspended dyads. Each rotation is numbered in both hands.
2.3. Touches Bloquées Rotatives: Lōtós

A similarly simple application of rotation in the portfolio appears in Lōtós, for solo bass flute, a programmatic work tracing the events of Odysseus’s journey to the island of the Lotophagi. The inspiration behind the use of rotation in Lōtós stems from György Ligeti’s touches bloquées technique, which he began to develop in ‘Selbstportrait’, the inner movement of his Three Pieces for Two Pianos [1976]. Richard Steinitz describes the process:

“In Selbstportrait each pianist uses his left hand to depress and hold silent clusters. Meanwhile, the right hand plays fast and continuous quavers criss-crossing the keys. Since the keys depressed do not resound, the flow of the performed quavers emerges as a pattern of sounding and silent notes.”19

The technique is further developed in the third of his Études pour piano: Book One [1985], which takes ‘Touches Bloquées’ as its title. Here the clarity presented by the use of only one piano allows for a more audible use of the technique. Steinitz describes the technique within the context of several other developmental innovations found in the étude:

“Its fourfold organic growth is achieved firstly through harmonic expansion, secondly through the development of legato groups amongst the stuttering quavers, thirdly through a greater preponderance of blocked keys causing ever longer silences, and finally, by means of an emerging hocket of fragmented quavers.”20

In Lauren B. Halsey’s detailed analysis of ‘Touches Bloquées’ she describes its form in terms of a series of pulse streams. The initial pulse stream is established, and from this point on it “becomes increasingly less supported as the alternate hand depresses more notes”.21

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20 Ibid, 287.
The final section of Lōtós takes the idea of a single pulse stream, in the form of regularly shifting ascending and descending scales, and then applies the touches bloquées technique to those scales, and the omitted notes are subsequently rotated through the different scalar degrees. The specific harmonic qualities of each individual scale are highlighted as the blocked notes allow the ear to focus on particular intervals within those scales, and the sense of a shifting harmonic landscape is therefore intensified. Extending Ligeti’s original nomenclature to suit this development, the technique will from this point onwards be termed touches bloquées rotatives.

The process occurs between bb. 40-52, and takes four different scales, each ascending and descending four times, and each using C as its tonic. This effectively creates a blueprint in which four bars of the locrian mode are given, followed by four bars of the whole tone scale, then four bars of the phrygian mode, and finally four bars of the enigmatic scale (Figure 11).

If the first scale we are presented with is the locrian mode, and the mediant and sub-mediant degrees of the scale are blocked both in the ascent and descent, then the following pattern emerges:

**Figure 10: Locrian mode in C with blocked mediant and sub-mediant given as crossed note-heads.**
Figure 11: Harmonic blueprint for Lőtös, bb. 40-52.

If, keeping in mind that the blocking is always mirrored in the descent, during the second appearance, or phase of the scale, the blocking begins to rotate along the scale to the subdominant and the subtonic degrees. The subsequent pattern is thus yielded (Figure 12):
During the third phase the dominant and tonic are blocked. This means that both the tonic C\textsuperscript{b} are omitted. This yields the following blocked notes for the third and fourth phases of the scale:

**Figure 12:** Second appearance of the scale, with rotated blocked notes.

![Figure 12](image)

During the fifth phase the mode changes to the whole-tone scale, but the blocked notes continue in the previous manner. As the submediant is blocked in the fourth phase and there is a note less in the whole-tone scale, the blocking in phase five shifts to the whole-tone “tonic” of C\textsuperscript{b}. The touches bloquées rotatives pattern continues throughout phases five to eight of the scale (whole-tone) and phases nine to twelve of the scale (C-Phrygian) (**Figure 14**).

Finally, during the thirteenth phase, the scale changes to the enigmatic scale. The mirroring of the blocked notes continues despite the fact that the subdominant degree of the scale is raised during the ascent and flattened during the descent (**Figure 15**).

Once the touches bloquées rotatives technique has been applied across the sixteen phases, the bass flute line is then characterized by mezzo piano phrasing punctuated by several accented notes at a sforzando dynamic, intended to aid in highlighting the very specific intervallic qualities of each of the four scales.

Both Anaphora and Lôtós contain examples of how rotation can alter the rhythmic or harmonic qualities of a musical idea, both in terms of providing the scaffolding for various musical
transformations, and of inviting the listener to focus attention on the particular harmonic
characteristics of certain scales or modes.

**Figure 14:** *Blocked notes yielded through phases 5-12. The ascent and descent of the first appearance of each scale is given, followed by the numbered phases.*

During the 9th phase, the scale changes to the phrygian mode.

**Figure 15:** *Blocked notes yielded through phases 13-16.*

The process ends upon the completion of phase 16.
Chapter Three: Building a Texture

3.1. Duets for Storab: Birtwistle in Layers

“I’m concerned with repetition, with going over and over the same event from different angles so that a multi-dimensional musical object is created…”

Harrison Birtwistle

Birtwistle’s preoccupation with achieving a multi-dimensional kind of music unearthed some interesting innovations. In the 1980s his gradual shift away from a melody-/non-melody-layering towards more “complex mass textures” allowed for an increasingly multi-tiered sense of strata in pieces such as Earth Dances [1986] and Endless Parade [1986]. The increasing sense of textural development generated by this strata-based compositional process proved just as fruitful in his smaller chamber pieces.

Duets for Storab [1983] for two flutes provides one example of the aforementioned textural innovations. Of particular interest here is the fifth duet, ‘From the church of lies’, during which, as Robert Adlington observes, Birtwistle “strings a single line between the two instruments, but then proceeds to undo the aural illusion by gradually increasing the incidence of pitches to the point where both flutes play notes at the same time.” The textural expansion evident in ‘From the church of lies’ is such that at its densest point the music hints at the existence of more than just two instruments (in the ensemble), a notion which is supported by Birtwistle’s choice of beaming in the score. At first we hear only a major third beamed between the two instruments, implying a single melodic line. Two different lines are implied in bb. 11-12, and by b. 31 the beaming begins to

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24 Ibid, 163.
suggest a third line in the second flute part. Finally, by b. 40 the beaming implies that two melodic lines appear in both flute parts, creating the impression that the ensemble has momentarily doubled in size, and that with it the density of the texture has also somewhat increased.

**Figure 16:** Duets for Storab, *mvmt. 5, bb. 1-23.*

**Figure 17:** Duets for Storab, *mvmt. 5, bb. 40-47.*
This idea of textural enrichment, which in Birtwistle’s case is achieved through a gradual layering of materials, provides the inspiration behind two very different techniques that will now be discussed, both of which have been specifically developed to enable the appearance of varied repetition.

### 3.2. Rebuilding a Texture: Silverpoint

In establishing the general character of the piece, the composer may choose to reduce the texture so that all that remains are vestigial remnants of the original material. A reconstruction can then occur whereby significant melodic, harmonic and/or rhythmic events that characterize the music can be reintroduced, gradually engendering a return to the original texture.

This forms the basic idea behind the second movement of *Silverpoint*, for flute and string quartet, originally written as part of an artistic collaboration with silverpoint artist Adrian Haak. Here the music is characterized by a staggered alternation between arco and pizzicato in the strings, and a long, languid melody in the flute. The effect is to provide a jerky, uneven accompaniment to the flute line. The movement is split into three sections, with the first taking up the opening 20 bars. Section two (bb. 21-39) then takes the material from the opening section and reorganizes the pitches into clusters. What then occurs is a gradual fanning-out of the pitches, as if to unfurl them from their clusters and reinstate the jerking, juddering character of the opening section. This process is completed in b. 39 where the music segues into the final section of the movement.

Taking a closer look, bb. 1-20 establish the character of the movement with the strings continually breaking off and then stuttering back into action. Subsequently, b. 21 takes the same pitches from b. 1 and compacts them into the aforementioned clusters, creating a much sparser texture. *Figure 18* gives the original positioning of the pitches in bb. 1-4, circling the notes that will be later grouped and compacted into clusters in bb. 21-24. *Figure 19* shows the corresponding clusters.
Figure 18: Silverpoint, mvmt. 2, bb. 1-4. Original pitches.

Figure 19: Silverpoint, mvmt. 2, bb. 21-24. New clusters.
As early in the process as the third cluster, the spreading-out of pitches has begun, with the single chord splintering off into two different chords, and by the fifth grouping the by now familiar cello figure reappears. By bb. 35-39 the likeness between the two sections’ corresponding groupings is extremely close, with only b. 39 breaking this similarity by compacting together material from bb. 19-20 in order to allow for the music to segue into the final section (see Figures 20 & 21).

Through a reconstruction of the original texture established in the opening section of the movement, the sense of repetition increases throughout the following passages of music. The splintering of compacted events therefore allows the texture to return to its original state.

**Figure 20**: Silverpoint, mvmt. 2, bb. 17-20.

*The notes that are to be omitted from b. 39 are crossed out.*
Figure 21: Silverpoint, mvmt. 2, bb. 37-39.

The similarities between the two figures indicate that the original character has been rebuilt.

3.3. Textures and Triggers: Plumes

The textural rebuilding in Silverpoint occurs freely, the only major governing principle being that the reconstruction is complete by b. 39. But what if each stage of the reconstruction depended on a stricter set of rules, which dictated when and where the reintroduction of musical aspects could take place? Plumes, for flute, alto flute and clarinet (doubling bass clarinet), contains examples of this method of composing, in the form of two senza misura passages during which the musical material is stripped down and re-established, resulting in the same kind of gradual textural enrichment found in Silverpoint. In this case, however, the rebuilding is enabled through the use of particular musical properties that trigger the next stage in the reconstruction.
For the sake of brevity, only the final *senza misura* passage bracketed as bb. (103)-(122) in the score will be analyzed here. If bb. 82, 83, 85 and 86 are isolated, with the bass clarinet part transposed up an octave to account for the later switch to the clarinet; the following recyclable musical blueprint is created:

**Figure 22:** Plumes, bb. 82, 83, 85 & 86.

The first cycle of the blueprint includes only the flute part. The alto flute is then introduced in the second cycle and the clarinet in the third. The next stage of the process is to remove a large number of notes from each instrument’s opening cycle, leaving only a series of “triggers” in each part. These triggers have been chosen because they allow a significant number of pitches from the blueprint to be reintroduced within the timeframe of the section, this being vital for textural growth. The flute’s trigger, shown in **Figure 23**, is the three-note chromatic descent from A♭ to F♯ heard in bb. (103)-(106).

Each time a cycle is completed, the flute part’s chromatic descent is heard. With each new descent, or “trigger”, three of the erased notes are reintroduced from the blueprint. These new notes will be the third notes on from each of the three trigger notes in the blueprint (A♭, G♮ and F♯ respectively). The third cycle will yield three more notes from the blueprint, this time three notes on from the previously yielded notes. If a new note from the blueprint has already been yielded, then the pitch selection simply shifts to the next new note along in the blueprint. **Figure 24** details the new notes added to the flute part with each cycle.
Figure 23: Plumes, bb. (103)-(106), flute part.

The small note heads show notes eradicated from the blueprint, leaving the flute’s “trigger”.

The alto flute’s trigger is any interval of a seventh (major or minor), of which there are four per cycle. The same method of pitch reintroduction is applied to the alto flute part, but here the fourth available note from the blueprint is reintroduced into each new cycle. Once again, if a new note from the blueprint has already been yielded then the pitch selection shifts to the next new note along in the blueprint. Figure 25 (p. 27) offers an overview of each new note reintroduced into the alto flute part.

The clarinet’s trigger is the \{012478\} all-trichord-hexachord on E♭. To create this hexachord the E♭ in b. 85 of the blueprint is raised by a major 2nd to an F♯ (see bracketed note in Figure 22). Figure 26 (p. 28) details the new notes added to the clarinet’s three cycles. Here six notes are counted in order to create a numerical relationship between the hexachord itself and the notes yielded.

Once all the pitches have been selected for reintroduction and/or eradication, it is made clear that the music should be played senza misura. Bar numbers are given in brackets to aid counting, and bar lines are given between staves, as they merely offer approximate pitch alignment guides. Each note loses its stem, and all rests are removed, leaving the scored presentation. In preparation for the coda in bb. 123-124, the final notes in b. (122) are expanded each into a feathered tremolo, as the plumes disperse.
Figure 24: Plumes, bb. (103)-(122), flute. If we label the A♭ as “1”, and include it in the counting process, then the third erased note following on in the blueprint is a C♮, which is labelled “1a” in the second cycle. Counting from, and including the C♮, the third note on in the blueprint is an A♭ in the third cycle, which is labeled “1b”. The same additive process is applied to the G♮ and the F♯ from the opening cycle. The only deviation from this process occurs in the fourth cycle where instead of “2c” yielding the first C♮ of b. (117), the preceding G♮ is yielded by only counting two notes instead of three. This has been done to reinforce the trigger’s chromatic descent among the increasingly dense texture (see box). Where a note has already been yielded, as in the fifth cycle where “1d” should yield “2c’s” G♮, the next erased note is unveiled, in this case the following C♮ (1d). By the end of the section, only four notes remain unveiled from the blueprint: the opening B♮, which would have been yielded as “3d” in the sixth cycle, the following C♮, the A♭ in the third bar of the blueprint, and the G♮ in the fourth bar. The following sequence of notes is yielded:
Figure 25: Plumes, bb. (107)-(122), alto flute part. If we assign the same numbering pattern to the alto flute as the flute, this time counting four notes including the second note (which forms the seventh-leap), one can observe that in the second and third cycles the process of yielding notes outlasts the cycle itself. Although the process begins to stretch out beyond the length of the cycles, the only missing note from the final cycle is the E♭ in the cycle’s third bar. Once again there is one deviation in the counting, which occurs in the second cycle where five notes are counted instead of four between “2” and “2a” (see box). This is to reinforce the E♭ that helps form the seventh interval in the first three triggers, bringing a greater sense of equilibrium between the appearance of E♭s and E♭s throughout each cycle. The entire process therefore yields the following sequence of notes:
Figure 26: Plumes, bb. (111)-(122), clarinet part. There are numerous recurrences of many of the pitches contained within the all-trichord-hexachord, in which case the trigger \{012478\} comprises the first of each pitch to occur for its reduction. Six notes, including the trigger notes are counted to select the pitches from the blueprint in the clarinet part. Where notes have already been yielded, the pitch selection shifts to the next new note in the blueprint. This time, there are no deviations in the counting. Due to a similar stretching of the process as found in the alto flute part, the clarinet’s third cycle omits three notes, the initial D♭, and the C♮ and B♭ from the second bar in the blueprint.

The following sequence of notes is thus produced:

Two important points arise from this analysis. First, the idiosyncratic set of parameters applied to the final senza misura section of *Plumes* allows the material generated throughout the section to stem entirely from the blueprint itself. Unlike the rhythmic arrays in *Anaphora*, the blueprint in *Plumes* does not underpin any other musical materials. Second, textural enrichment is made possible by the reintroduction of pitches, which is not the case in *Silverpoint*, where almost all of the pitches are retained, and the resultant texture grows instead through a splintering of compacted clusters.

Most important is the musical reasoning behind the use of these techniques. In the case of *Silverpoint* the clusters create a sparse musical contrast to the languid flute melody, which is interrupted by the jarring, stuttering accompanimental strings, while in *Plumes* the angular
contours which represent increasing wisps of erratically rising smoke, become more evident as the process yields more pitches.

In both cases, the reintroduction of pitches and rhythms allows the listener to make ever-increasing connections with previous events in the music. It should at this point be noted that this technique of pitch reintroduction is reminiscent of troping, with regard to plainchant, where either a new text might be added to a melisma, or where new music or words might be inserted between existing sections of a melody or text. In light of this, what links the two methods of textural enrichment in Silverpoint and Plumes, and that of medieval troping, is their capacity for supporting varied repetition.
Chapter Four: Breaking a Sequence

4.1. Tippett and the Sequence

Michael Tippett on his Piano Sonata No. 2: “The effect is one of accumulation... by variation and repetition.”

Up to this point, the techniques discussed have required relatively large timeframes for varied repetition to occur. Attention will now turn to a long-established technique, which enables variation over much shorter timeframes.

For centuries, the sequence has provided composers with a means of extending a motif, through transposition on different scale degrees. Modernists have also used (the) sequence as an effective developmental tool. According to musicologist Christopher Mark, Michael Tippett’s treatment of sequence evolved from an “essentially traditional” approach to one which, through its “lack of a uni-directional process”, epitomized Tippett’s later “modernist agenda”. Mark uses Tippett’s oratorio A Child of Our Time [1944] to provide an example of Tippett’s more traditional use of sequences. In Figure 27 the alto aria entitled ‘The argument’ demonstrates an almost entirely literal use of sequence, which aids the direction of the harmony first through the relative (G♭) major (as Mark points out, E♭ minor is contradicted by the notated signature), and then towards a tonic cadence at the scored figure 10. This suggests harmonies that do not move far from “common-practice norms.”

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27 Ibid.
Mark argues that, as Tippett’s personal style progressed, his approach to the sequence evolved with it. In his Third Symphony [1970-2] he begins to embed sequences within a less hierarchically clear-cut framework, with a more liberal use of variation within the sequential restatements. Mark’s reduction of figures 59 and 60 in Figure 28 demonstrates not only that the use of sequence in this case allows for the music to contain a greater degree of chromaticism, but also that the sequential restatements can become less literal. The chromatic tension between A♭ and G♭ in the opening chord increases so that, by the third chord, we have D-major and E♭-major triads juxtaposed to create a harmonic strain. This is heightened by the fact that only the quintuplet grouping remains to retain the sense of sequential identity.
I am interested in this willingness to side-step the expectations set up by the notion of a sequence, through the use of sequential restatements that suddenly or gradually alter to become nothing more than remnants of the original motif.

A brief summary of the introduction to the opening movement of Tre poesie per pianoforte will help to contextualize the broken sequence technique. The piece, written for and dedicated to my tutor, Dr Rob Keeley, begins with a nine-bar, eighty-eight-note exercise. Here, a passage of music features every single note of the piano’s full range, each played only once throughout. The use of the entire keyboard range is effectively serialized. The purpose of this exercise is to force the composer to find ways to create a sense of harmonic cohesion despite the harsh registral restrictions (assuming the composer wishes to achieve such cohesion). One method that surfaced during this attempt was to establish a motif, restate it at a different pitch level (creating the expectation of a sequence), and then to break the sequence, either immediately, or during its third or fourth restatement.
*Tre poesie per pianoforte* contains numerous examples of this idea, starting in the aforementioned introduction. Once the initial three-note figure is heard (a nod to the opening gesture of Alexander Scriabin’s *Poème-Nocturne, Opus 61* [1911-12]), what follows is a semiquaver quintuplet descent curtained by two straight semiquavers, with a quaver triplet in the left hand offset by a simple crotchet-quaver figure in the right hand, giving the impression of a rallentando. The sequence begins with a quintuplet repetition, transposed down a semitone. The harmonic aspect is lost with the subsequent two semiquavers, so that all that remains of the sequence is its rhythmic profile, and by b. 4 this has also disappeared (*Figure 29*).

**Figure 29:** *Tre poesie per pianoforte, mvmt. 1, bb. 1-4.*

A second use of sequence occurs in the introduction in the left hand during bb. 5-7. Three major 7th upward leaps appear in succession, but during the fourth transposition a D♯ intersects the 7th interval, disrupting the pattern (*Figure 30*). These two examples establish broken sequence as a compositional expectation that will appear elsewhere in the piece.
Figure 30: Tre poesie per pianoforte, mvmt. 1, bb. 5-7, left hand.

Sequence of upward major 7ths is disturbed by the D in bar 6.

In the second movement, one can see an example of a half-sequence (Figure 31), where only certain pitches are transposed within a rhythmic sequence. In b. 15, the left hand implies an upward transposition of the previous bar by interval class 2; however, the right hand remains untransposed. The final three notes of the left hand quintuplet and the following D in b. 15 then mimic this harmonic stasis. Transposition reappears in both hands starting with the left hand’s F♯,
again falsely implying that a sequence will ensue. The process ultimately yields only a short-lived rhythmic sequence.

In movement three, sequences support the intricate and twisting character of the music. Throughout this spiraling, contorted sound world, audible examples of intervallic augmentation offer clarity amid the density. One example of this can be found in the left hand of bb. 8-13. A descending set of dyads in the lower voice, with intervals that gradually augment, are bound to a chromatic descent from A♭ to C♮ (bb. 8-12) in the upper left-hand voice, mirroring the overall downward trajectory. The interval class 11 intervals heard between the two voices are all that keeps the sequence in motion, as there is no established rhythmic identity to those intervals during the gradual descent. The downward course begins with the left hand A♭ and A♮, and continues through the following G♭ and G♮, the F♮ and G♭, D♮ and E♭, and C♮ and D♭. Because in some cases there are two notes in the above chromatic descent before the 7th leap instead of just one, the interval of transposition occasionally switches from a tone to a semitone and back; notice how the initial A♭ moving down to the A minor dyad is transposed down a tone at first (to G♭/G♮), and then down a semitone (to F♮/G♭). The E♭ in b. 10 only provides a momentary interruption to this process. What is heard is a sequence independent of rhythm, pulse, accent or stress, which underpins the twisting nature of the music.

Figure 32: Tre poesie per pianoforte, mvmt. 3, bb. 8-13.
Bb. 66-68 of the third movement contain a further example of broken sequence. The opening notes of each quintuplet form a descending sequence by interval class 2. This is also true of each subsequent minim or dotted minim. The second notes of each quintuplet stretch the interval of transposition from a semitone to a tone, while the last two notes of each quintuplet remain the same, forming the aforementioned degree of harmonic invariance. Finally, the inner note of each quintuplet conforms to no sequential pattern. The minim in b. 67 breaks the rhythmic rigidity of the sequence, implying a certain level of freedom from rhythmic constraints.

**Figure 33:** Tre poesie per pianoforte, mvmt. 3, bb. 66-68.

All of these methods through which a sequence can be broken were inspired by Michael Tippett’s development of the technique. In his use of sequence, Tippett provides us with examples of its clarity, its flexibility and its capacity for supporting altered motifs or melodies within often dense sound worlds. In short, what Tippett shows us is that the sequence provides an extremely versatile method with which to create varied repetition.
Chapter Five: Adapting Isorhythmic Principles

5.1. For the End of Time...

“My initial thought was of the abolition of time itself…”

Olivier Messiaen

Another example of a durable compositional technique that aids varied repetition is isorhythm, which has for centuries offered composers the opportunity to (faithfully) repeat non-aligned harmonic and rhythmic sequences while allowing the relationship between those aspects to alter their appearance. Once a distinguishing feature of the fourteenth century motet, the device became a useful compositional tool in the twentieth century, with composers such as Olivier Messiaen pioneering new uses for the technique.

There are few more prominent examples of twentieth century isorhythm than in Messiaen’s *Quatuor pour la fin du temps* [1941]. The first movement, ‘Liturgie de cristal’, features a repeating pattern played by the piano and another by the cello, while the violin part imitates a nightingale’s song and the clarinet part imitates a blackbird’s song. The piano part contains a talea consisting of seventeen unequally spaced attack points and the coloring of twenty-nine chords. The cello part contains a non-retrogradable rhythm of twenty-six durations, which in itself contains several other non-retrogradable cells. The violin and clarinet parts appear independently of the piano and cello parts, so that when these reach a natural finishing point the patterns simply cut off

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at the movement’s end. With this in mind, Robert Sherlaw Johnson posits that each talea provides a coloration of the movement, “rather than defining its structure”.29

**Figure 34:** Quatuor pour la fin du temps, ‘Liturgie de cristal’, Piano talea & color.

In a sense Messiaen’s use of isorythm as a platform over which the freer violin and clarinet parts can occur, is similar to the use of rhythmic arrays in *Anaphora*, in that the device supports the melodic content, rather than defining the entire structure of the piece or section, or generating all of the music contained within it.

### 5.2. A West Country Tale: *Henhwedhel*

*Henhwedhel* (the Cornish translation of “Legend”) is a twenty-first century symphonic poem, following the legend of the River Tamar. In this tale, two gnomes living in the underground world of Cornwall and Devon were sent a young nymph named Tamara to care for and rear as their own child. As she grew up Tamara longed to see the upper world and began sneaking out in the early

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hours of the morning to explore. On one such occasion she met two giants, Tavy and Tawridge, who both fell madly in love with her. One morning the two giants, who had become tired of Tamara’s game of hard-to-get, trapped her in a peat bog and refused to free her until she chose one of them to marry her. She continued her beguilement of the two giants, until the sun rose and her father realized what had happened. He raced to the peat bog, sent the two giants into a deep sleep and turned Tamara into a river as punishment for her insolence. Tavy was the first to wake, and he quickly realized what had happened upon hearing Tamara’s sighs as she wended her way past him. He pleaded with his father, who had powers Tavy did not, to turn him into a river so that he could be with Tamara. His father relented and Tavy raced ahead to find Tamara, catching up with her just before she passed into the sea. Upon waking, Tawridge made the same discovery and asked his father to fulfill the same wish, only this time in his rush to find Tamara he became lost and flowed in the wrong direction, never to be reunited with his lover or his friend. Thus the rivers Tamar, Tavy and Taw were formed.

5.3. Form

*Henhwedhel* contains six sections, each one consisting of an idea and a variation of that idea through which the section is enlarged. In short, the structure is:

\[
\begin{align*}
A, & \text{ I+V} \\
B, & \text{ I+V} \\
C, & \text{ I+V} \\
D, & \text{ I+V} \\
E, & \text{ I+V} \\
F, & \text{ I+V}
\end{align*}
\]

In terms of the variation material in each section, the degree of enlargement, and thus the amount of time given to each section as a whole, is determined by observing the Padovan Sequence. Where the Fibonacci Sequence (1, 1, 2, 3, 5, 8) is created by adding two adjacent values to yield the following value (1+1=2, 1+2=3 etc.), the Padovan Sequence (1, 1, 1, 2, 2, 3, 4...) after setting out the first three values of 1, contains subsequent values which are found by adding the previous two values together and subtracting a value of 1 (for example, 1+2-1=2, 2+2-1=3,
The difference between the two sequences can be visualized using the following two diagrams, designed by Professor Ian Stewart of Warwick University:

**Figure 35:** Left, Fibonacci Sequence. Right, Padovan Sequence. In the Fibonacci Sequence, adding one side of each of the first two squares (1+1) equals one side of the following square (2), and so on. In the Padovan Sequence, adding one side of each of the first two triangles and subtracting a value of 1 (1+1-1) will equal 1, giving us the first three triangles. Next, we add one side of each of the three first triangles, and minus a value of 1 (1+1+1-1=2). The sequence then continues as explained (2+2-1=3 etc.).

As seen in the following table, the first three musical ideas are varied and enlarged by a factor of one, essentially doubling the length of those sections. Sections four and five are enlarged by a factor of two, trebling their lengths. The final section is enlarged by a factor of three, quadrupling it as a whole.

**Figure 36:** Henhwedhel. *Section enlargements.*

<table>
<thead>
<tr>
<th>Section</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idea + Variation x subsequent Padovan Value</td>
<td>Idea + Variation x1</td>
<td>Idea + Variation x1</td>
<td>Idea + Variation x1</td>
<td>Idea + Variation x2</td>
<td>Idea + Variation x2</td>
<td>Idea + Variation x3</td>
</tr>
</tbody>
</table>

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31 Ibid, 87.
The steady increase of the values observable in various mathematical sequences seemed to me to complement the way in which a major river with a large enough catchment area increases in size as it flows from its source to its mouth. In my choice of sequence, I felt that the slower increase in the initial values of the Padovan Sequence afforded a more gradual sense of expansion than, for example, those of the Fibonacci Sequence. Thus the Padovan Sequence seemed a more fitting choice in creating a solid, discernable relationship between the enlargements of each musical idea and the ever-widening nature of the River Tamar.

**Figure 37:** Left, map of the River Tamar. Right, aerial view of the Plymouth Sound, facing south.

Proportional enlargement is achieved through a subdivision of beats as opposed to duration or number of bars. It would be unrealistic to expect a conductor to be able to achieve anywhere near the correct time frame in each variation to literally equal, double or triple the timings of an initial idea. A tempo change is also included during the final variation, which makes this doubly impossible. Alternatively, although one could simply double or triple the amount of bars in a pursuit of exact proportional enlargement, to adequately achieve this the time signatures throughout the piece would have to match precisely. If an idea begins with two bars in a 4/4 time signature, then variations A1, B1 and C1 would have to begin with the same number of bars in 4/4.

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D1 and E1 would have to begin with four bars in 4/4, and F1 would have to begin with six bars in 4/4. In short, the bar lengths would need to correspond throughout. The pulse has thus proved to be the best way to ensure proportional enlargement with maximum freedom for organic and unhindered composition, in that the pulse is the determining factor in the length of each idea and variation.

**Figure 38:** Henhwedhel. *Full structure at a glance.*

<table>
<thead>
<tr>
<th>Section</th>
<th>Theme Length in Beats</th>
<th>Variation Length in Beats</th>
<th>Total Beats</th>
</tr>
</thead>
<tbody>
<tr>
<td>A + A1</td>
<td>54 beat (14 bars)</td>
<td>54 beats (14 bars)</td>
<td>108 beats (28 bars)</td>
</tr>
<tr>
<td>B + B1</td>
<td>45 beats (11 bars)</td>
<td>45 beats (11 bars)</td>
<td>90 beats (22 bars)</td>
</tr>
<tr>
<td>C + C1</td>
<td>24 beats (6 bars)</td>
<td>24 beats (6 bars)</td>
<td>48 beats (12 bars)</td>
</tr>
<tr>
<td>D + D1</td>
<td>41 beats (11 bars)</td>
<td>82 beats (22 bars)</td>
<td>123 beats (33 bars)</td>
</tr>
<tr>
<td>E + E1</td>
<td>74 beats (15 bars)</td>
<td>148 beats (30 bars)</td>
<td>222 beats (45 bars)</td>
</tr>
<tr>
<td>F + F1</td>
<td>84 beats (21 bars)</td>
<td>252 beats (63 bars)</td>
<td>336 beats (84 bars)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>927 beats (224 bars)</strong></td>
</tr>
</tbody>
</table>

### 5.4. Orchestral Treatment

It was important to keep in mind *Henhwedhel’s* river-context when considering models for my orchestral treatment, particularly regarding the outer sections of the piece. I intended to begin with strings only, to mirror the humble beginnings of a river and the small initial values of the Padovan Sequence, and Tōru Takemitsu’s *Requiem for String Orchestra* [1957] provided a significant source of inspiration. In the opening moments of his requiem Takemitsu achieves a great expressive quality through a slow tempo, angular melodies and a rich chordal accompaniment. The opening gestures of *Henhwedhel* create a similar sound-world, with jagged
melodies passed between the upper strings, and the cellos and double basses passing in and out of the texture.

I wanted this fluidity to be interrupted occasionally by more violent moments. I used the driving offbeat reiterations in ‘The Ritual Action of the Ancestors’ from Igor Stravinsky’s The Rite of Spring [1913] as a model by which to achieve these interruptions, which we first hear in bb. 25-26 of Henhwedhel. My uses of offbeat reiteration are vastly more fleeting than in ‘The Action of the Ancestors’, so as not to lose the fluid character of the music, and they are often juxtaposed against other rhythmic units, as evidenced in the climax in bb. 204-206 where the River Tamar finally meets the sea.

The final section of Henhwedhel, from b. 141, is influenced by the ‘Jardin du sommeil d’amour’ from Olivier Messiaen’s Turangalîla-Symphonie [1949]. The use of vibraphones and woodwinds, the frequent interspersion of major chords among the dissonances (such as the F-major chord in b. 200), and the slow tempo and often-quiet dynamics, all combine to represent the Tamar’s gentle progress towards the Plymouth Sound.

Jean Sibelius’s Oceanides [1914] provided a useful model for the structuring of Henhwedhel. Daniel M. Grimley describes the work as proceeding “through a series of three generative, wave-like cycles” (A-B, A₁-B₁, C-A₂), during which the recycling of two subjects (A and B) allows both for a strong impression of the depth and size of the ocean, and for the storm to gather and develop throughout the tone-poem towards its wave-crash climax.³⁴ In Henhwedhel the developmental A₁ section follows on immediately from the preceding A section, with the process repeating over five further sections to mirror the ever-deepening, ever-expanding character of the River Tamar.

My treatment of the orchestra follows a simple set of principles, whereby the string and percussion writing presents little technical difficulty, in an attempt to provide a solid base for the virtuosic treatment of the woodwinds and brass. There is also an intentional contrast between tutti textures (for example in the climax in bb. 204-206), and moments of register-division (as in bb. 34-

39, where the string harmonics and woodwind phrases contrast with the lower strings and brass chords). This orchestral treatment has allowed me to create melodic strands, which are passed between the woodwinds and brass and supported by a simple string/percussion accompaniment, as opposed to a more contrapuntal set of textures. This treatment seemed appropriate to the tone-poem setting, where the clarity of the orchestration provides an effective support for the story-telling process.

5.5. A Loosening of Isorhythmic Principles

The overlapping of talea and color form the essence of isorythm, which distinguishes it from ostinato. In bb. 111-140, Henhwedhel adapts this isorhythmic principle so that two series, which move independently of each other and of the surrounding material, are coloured by chords that match the rhythmic durations. Once the series have been established, certain phases of each series are silent, or implied, thereby exposing the inner workings of the opposing series. Just as the exclusion of particular pitches during the final section of Lôtós serves to highlight the harmonic qualities of each scale, in Henhwedhel the omission of certain phases accentuates the rhythmic and harmonic properties of each series.

The series appear in the variation in section E. The first series, which is twelve crotchets in length, is assigned to the 2nd percussionist, 1st violins, cellos and double basses and is first heard in b. 111, while the second duration, which is thirteen quavers in length, is given to the 1st percussionist, 2nd violins and violas and makes its first appearance on the second quaver of b. 112.

Figure 39: Henhwedhel. First rhythmic series.
In each case, we hear three phases of each series and then two phases are silent. Throughout the 30-bar variation, twelve phases of the first duration are heard/implied and twenty-one phases of the second duration are heard/implied. We therefore hear phases 1,2,3,6,7,8,11,12 of the first series, and phases 1,2,3,6,7,8,11,12,13,16,17,18,21 of the second series. While this process is unfolding the musical statements heard in the woodwinds and brass in bb. 96-110 are repeated throughout the variation over the two series, but with more time between the appearances of those statements to adjust to the greater length of the variation. A table of the occurrences of each series is given below.

**Figure 41**: Henhwedhel, *bb. 111-140. Table of appearances of both durations.*

<table>
<thead>
<tr>
<th>Duration Number</th>
<th>Occurrence of 1&lt;sup&gt;st&lt;/sup&gt; Duration</th>
<th>Occurrence of 2&lt;sup&gt;nd&lt;/sup&gt; Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(bar) 111, (crotchet beat) 1</td>
<td>(bar) 112, (quaver beat) 2</td>
</tr>
<tr>
<td>2</td>
<td>113, 1</td>
<td>113, 3</td>
</tr>
<tr>
<td>3</td>
<td>116, 1</td>
<td>114, 8</td>
</tr>
<tr>
<td>4</td>
<td>118, 3</td>
<td>116, 5</td>
</tr>
<tr>
<td>5</td>
<td>120, 2</td>
<td>117, 10</td>
</tr>
<tr>
<td>6</td>
<td>122, 2</td>
<td>118, 11</td>
</tr>
<tr>
<td>7</td>
<td>125, 3</td>
<td>119, 12</td>
</tr>
<tr>
<td>8</td>
<td>128, 2</td>
<td>120, 11</td>
</tr>
<tr>
<td>9</td>
<td>130, 4</td>
<td>121, 10</td>
</tr>
<tr>
<td>10</td>
<td>133, 1</td>
<td>123, 3</td>
</tr>
<tr>
<td>11</td>
<td>135, 5</td>
<td>125, 4</td>
</tr>
<tr>
<td>12</td>
<td>137, 5</td>
<td>127, 1</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>128, 4</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td>129, 7</td>
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<tr>
<td>15</td>
<td></td>
<td>130, 10</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>132, 3</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td>133, 6</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td>135, 3</td>
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<tr>
<td>19</td>
<td></td>
<td>136, 4</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>137, 5</td>
</tr>
<tr>
<td>21</td>
<td></td>
<td>138, 6</td>
</tr>
</tbody>
</table>
By tying the coloring harmonies to the rhythmic series, an overlapping of those harmonies occurs alongside the overlapping of the two rhythmic sets. This adaptation supports the rhythmic stability of each set, while the omission of particular phases of each heightens the sense of overlapping. The result lies somewhere between isorhythm and phase shifting. Though overlapping occurs, there is no overlapping in any one instrumental part between a talea and a color. Furthermore, although the section contains two rhythmically stable series, these are juxtaposed against the two harmonically flexible colors. The music therefore rejects the strict patterning typically found in phase shifting.

While Olivier Messiaen successfully exploited the uneven relationship between a talea and a numerically unbalanced color, in Henhwedhel the constant displacement of the two sets of rhythmic series, enhanced by a much freer use of harmonic colorings, achieves a perpetual state of varied repetition.
Chapter Six: Two Intermillie Methods

6.1. Lutosławski and Transformation

“I believe that it is only now that we are liberating ourselves from the conventions of the tonal system that we can comprehend all the wealth of harmonic possibilities available in the chromatic scale.”

Witold Lutosławski

Transformation, or a marked change in form, nature or appearance, is a natural consequence of varied repetition. It is the composer’s prerogative to decide which musical parameters they will transform, and to what degrees those parameters should be transformed. In the romantic period the concept of the theme offered composers an audible musical object, which could be transformed in order to signal important structural or developmental moments in the music.

In the twentieth century, composers such as Witold Lutosławski used transformation as part of the inner harmonic processes. In the 1950s, Lutosławski’s compositional developments included what he eventually termed his “chain” technique, whereby musical variations or episodes, as heard in the ‘Passacaglia’ from his Concerto for Orchestra [1954], did not “begin and end together... but instead were staggered, like the links in a chain.” Lutosławski then began to apply particular harmonic techniques to these “chains”, such as in Musique Funèbre’s second section [1958], where there are “twelve metamorphoses, in each of which the principal line is based on a different transposition of the row proceeding counter-clockwise around the cycle of fifths, with the notes of the row embellished by sets of diatonic neighbours”. Two other layers, a freely

37 Ibid, 148.
composed twelve-phrase line and what Lutosławski called a “harmonic continuo”, both based on the intervals heard in the principal line, combine to create a much more harmonically idiosyncratic “chain” effect.

In Lutosławski’s later music, he further developed this kind of harmonic innovation. As Stephen Stucky notes, the concept of complementation, “the practice of deriving the notes of one voice or layer from among those not present in a second voice or layer” was one that Lutosławski utilized to great effect during his middle and late periods. One work in particular in which complementation is clearly audible is Lutosławski’s *Preludes and Fugue* [1972] where the beginnings and endings of each prelude are composed so as to connect together in any order. As Charles Bodman Rae explains:

“The points of overlap have a distinctive division of the chromatic whole into two complementary hexachords: each ending is drawn from the notes D♯, D♭, B♭, B♯, A♭ and G♯; while each beginning is drawn from the remaining six notes.”

Here the complementation technique allows the listener to place him/herself within the larger structure of the piece, despite the changeable order of the preludes themselves. Thus, in *Preludes and Fugue*, Lutosławski used the metamorphosis from one hexachord into another not only as a structural device, but also to allow the conductor some say in the overall form of the work.

### 6.2. Swapping Scales: *Moods, Metamorphosing*

The notion of harmonic transformation looms large over *Moods, Metamorphosing*, a sextet for brass trio, clarinet, percussion and piano, which takes its inspiration from the gently shifting moods of a particular stretch along the south side of the River Thames, between Wandsworth Bridge and St. Mary’s Church. From the vantage point of an apartment above this particular scene one could

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observe, as the daylight changed and numerous people continued going about their lives, the manner in which a particular mood would gradually unfold while the previous mood receded. In musical terms, it was possible to conceive of a piece where the tail end of one musical mood would occur simultaneously with the opening gestures of the next. This idea could replace the notion of a transition that seeks to link together two more substantial passages or sections. In short, there is no connective material.

This idea is reflected in the harmony of the piece, by establishing relationships between two particular scales. This idea is at its most structurally significant during the fourth section of the piece (bb. 94-182), the only point where several different moods are heard in full simultaneously. The section is immediately preceded by slow, fluid brass music, punctuated by vibraphone flourishes. This texture eventually gives way to a fragmented game of “tag” between the piano and the marimba. In b. 119 the marimba line is continued in the clarinet part, while the percussionist switches back to vibraphone. At this point the vibraphone’s sustained character is set against the fragmented cells in the clarinet and piano, and its dynamics are much quieter. The pitches available to the vibraphone are those of Scriabin’s “Prometheus” or “Mystic” chord (separated-out), and those available to the clarinet and piano are what I have termed the “Incremental Scale” (both scales are detailed in Figure 42). Gradually the pitches are altered one by one so that by b. 173 the available pitches have been swapped, with the “Prometheus Scale” audible in the clarinet and piano parts and the “Incremental Scale” appearing in the vibraphone part. This gradual altering of pitches is achieved by the use of triggers as discussed in the analysis of Plumes, but in this case the trigger is the interval of either an octave or a compound octave. Whenever this interval is heard between the clarinet and piano parts the next stage in the process is triggered. Figure 43 lists all of the occurrences of the octave triggers. The use of dynamics mirrors this scalar metamorphosis, with the clarinet and piano’s gradual diminuendo set against the vibraphone’s crescendo. The brass section’s alla marcia addition in b. 151 signals the largest climax of the piece and is intended to complement the vibraphone’s aforementioned crescendo, while the clarinet and piano retreat into the new texture.
Figure 43: The switching of pitches in each phase (bb. 119-173, Moods, Metamorphosing). The vibraphone’s opening Prometheus Scale is given at the top, and the piano and clarinet’s Incremental Scale is given at the bottom. The details at the foot of the schematic specify the incremental intervallic-augmentation taking place within the scale. The downward arrows follow the alterations to the Prometheus Scale and the upward arrows trace the alterations to the Incremental Scale. The alterations are detailed in the right (Incremental Scale) and the left (Prometheus Scale) margins. In the margins, the verbs “diminish” and “augment” refer to what is happening to the intervals, instead of what the degrees of the scale actually are (e.g. “augmented 5th”).

Prometheus Scale

Vibraphone

Phase 1: Scale

Phase 2: Omit tonic

Phase 3: Augment 5th entry (minor 2nd)

Phase 4: Diminish 2nd entity (minor 2nd)

Phase 5: Diminish 4th entity (minor 2nd)

Phase 6: Diminish 1st entity (minor 2nd)

Phase 7: Reintroduce tonic

Phase 6: Diminish 5th entity (minor 2nd)

Phase 5: Augment 2nd entity (minor 2nd)

Phase 4: Augment 4th entity (minor 2nd)

Phase 3: Augment 1st entity (minor 2nd)

Phase 2: Omit tonic

Phase 1: Scale

Piano & Clarinet

Incremental Scale

Interval between 1st & 4th entity = augmented 4th
Interval between 2nd & 5th entity = perfect 5th
Interval between 3rd & 6th entity = minor 6th
Hence the interval increases incrementally
Figure 42: Moods, Metamorphosing, bb. 119-173.

Occurrences of octaves in the clarinet and piano parts.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Bar</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>119</td>
<td>Where the clarinet assumes the marimba’s role.</td>
</tr>
<tr>
<td>2</td>
<td>129</td>
<td>C♮s</td>
</tr>
<tr>
<td>3</td>
<td>137</td>
<td>C♯/D♭</td>
</tr>
<tr>
<td>4</td>
<td>144</td>
<td>D♮s</td>
</tr>
<tr>
<td>5</td>
<td>151</td>
<td>E♭s</td>
</tr>
<tr>
<td>6</td>
<td>159</td>
<td>E♭s</td>
</tr>
<tr>
<td>7</td>
<td>164</td>
<td>A♭/B♭</td>
</tr>
<tr>
<td>8</td>
<td>173</td>
<td>A♭s trigger the end of the process.</td>
</tr>
</tbody>
</table>

Just as the harmonic metamorphoses in Lutosławski’s Preludes and Fugue offer a means of signalling the arrival of a new prelude, in Moods, Metamorphosing the process of intervallic modification indicates the exact position of each subdivision of the fourth section. Furthermore, while the original hexachord in Lutosławski’s Preludes and Fugue is reinstated each time a new movement ensues, both the Prometheus and Incremental Scales are reinstated at the end of the fourth section of Moods, Metamorphosing, in their new instrumental settings.

### 6.3. Non-Cyclical Metamorphosis: Two Graveyard Sonnets

Metamorphosis need not, however, be cyclical, and in Two Graveyard Sonnets we have an example of a different intervallic method which supports a similar scalic variation to that found in Moods, Metamorphosing, but instead of a reinstatement of certain scales by way of a gradual exchange of pitches, here the harmony constantly shifts away from the original pitches, in a process which could continue ad infinitum.
The two texts by Charlotte Turner Smith, taken from her *Elegiac Sonnets, and Other Poems* [1827], are examples of the British “Graveyard School” of literature that began in the late 1700s and usually included gloomy meditations on mortality. Both sonnets are set in a disused churchyard during a storm. In Sonnet XLIV, I chose to set the contemplative, sorrowful text to smooth melisma-free melodies, which move stepwise through the music, against a turbulent, polyrhythmic piano part. The writing style is similar in Sonnet LXVII, but with the linear vocal part and polyrhythmic piano writing punctuated by violent, stormy outbursts.

Sonnet LXVII contains a process whereby four rising figures are established, and this sequence of pitches is then intervallically augmented during six phases throughout the rest of the sonnet. These moments of harmonic strictness are set against the free, moment-to-moment harmonic writing heard throughout the rest of both sonnets. In b. 1, the pitches from the left hand of the first bar of Sonnet XLIV are transposed down an octave and then “ironed out” into a septuplet and a quintuplet. In b. 2, the first septuplet then appears in retrograde, transposed down three octaves, with the intervals inverted to maintain the ascending pattern. Finally the quintuplet in b. 1 is then also heard in retrograde, transposed down three octaves with its intervals inverted. Two modifications then occur by which an octave is then added to the first interval of this figure to yield a compound interval, and finally the fourth note (A♭) of the new figure is added up an octave to expand it into a sextuplet. This entire process yields the four rising figures shown below.

**Figure 44**: Two Graveyard Sonnets, *Sonnet LXVII*, bars 1-2.
By augmenting the intervals of the initial septuplet and quintuplet by a minor 2\textsuperscript{nd}, with the exception of the first two notes of the first septuplet, which remain constant, a new phase of this pattern is created. This process of augmentation continues creating the six phases shown in Figure 45, until in the seventh phase the piano’s range cannot cover the notes yielded by the pattern. This set of phases provides a constantly shifting sense of harmonic variation.

While phase one appears with great clarity in the opening 2 bars, phase two is embedded much more subtly into the piano texture in bb. 19-22 (Figure 46). Phases three and five both return to the rhythmic units heard in Figure 44, in bb. 25-26 and bb. 49-50 respectively. Phase four begins in bb. 89-90 (Figure 47), but is interrupted by the homophonic passage in bb. 91-93. It is then resumed in bb. 94-95. Finally phase six is heard during the coda (lento, delicato) in bb. 71-74. Four rising figures are each separated by an arpeggiando chord, with each note echoed alongside the following note in the sequence to both reinforce and round off this final phase.

The two tightly controlled methods of intervallic transformation in Moods, Metamorphosing and Two Graveyard Sonnets demonstrate that both cyclical and non-cyclical techniques can not only delineate moments of structural importance but also support the appearance of repetition in varied form. In the case of Moods, Metamorphosing the swapping of two different scales between particular instruments allows certain harmonies to reappear in altered states, and in Two Graveyard Sonnets the scalic transformation allows particular themes to be both altered and/or embedded subtly into different textures. In either case the technique supports varied repetition, because as much as transformation is a natural consequence of variation, so to is variation an aftereffect of transformation. The two are inextricably linked.
Figure 45: Two Graveyard Sonnets. Seven phases from Sonnet LXVII.

Phase 1
First Septuplet & First Quintuplet Reiterate the LH Piano Part in Bar 1 of Sonnet XLIV

Phase 2
Each Interval of the Septuplet & Quintuplet is Augmented by a Minor 2nd. Except the First Interval of Septuplet, Which Remains Constant. The First Quintuplet Always Begins on E-flat

Phase 3
The Process is Repeated Until Piano Range Can’t Cover the Notes Yielded

Phase 4

Phase 5

Phase 6

Phase 7
With the final D-sharp the phases leave the range of the piano, rendering all subsequent phases impossible.

First Quintuplet in Retrograde Intervals Inverted to Maintain Ascension Begins 3 Octaves Below
Added Octave Loop in 1st Interval 4th Note of New Quintuplet Added Up the Octave to Create a Sextuplet

First Septuplet in Retrograde Intervals Inverted to Maintain Ascension Begins 3 Octaves Below
Figure 46: Two Graveyard Sonnets, bb. 19-22, piano.
Brackets contain notes from phase two. Dotted lines connect the brackets to link up the full phase.

Figure 47: Two Graveyard Sonnets, bb. 89-95, piano.
Brackets contain notes from phase two. Dotted lines connect the brackets to link up the full phase, except where the homophonic passage interrupts the process in b. 91.
Chapter Seven: The Beginnings of a Musical Language

7.1. Varied Traits: Beyond Technique

“Happiness consists in frequent repetition of pleasure.”

Arthur Schopenhauer

On the basis that the composer finds great pleasure in writing music, it is natural that the repetition of such an act will unearth specific musical traits, which are particular to the composer. As these traits accumulate, they begin to collectively define the musical language of that composer. Those traits are inevitably collected as a result of the preferences that the composer develops as they continue to accrue various listening experiences, and as such the composer must acknowledge those experiences as vital in the development of their own voice. It is my intention to pay homage to my forebears and to demonstrate where in the accompanying portfolio their voices can be most keenly heard. This exploration focuses its attention not on compositional technique, but on more general musical aspects, which the composer hears in the music of others, and then appropriates, repeats and varies in their own music.

It is always useful to bear in mind all the usual musical parameters when composing even the simplest single musical line. Questions for the composer to consider are many. For example, in which voices and at which points in the music should that particular line be heard? How will the contours of that line sound and which instruments are capable of achieving them? What are the temporal and rhythmic limitations of the line, and which harmonies and registers will best colour and characterize it? Different composers have answered these questions in a variety of different

ways, and I will now draw attention to those composers that have inspired my own answers to those questions, and in doing so I will attempt to highlight a small number of musical traits that feature heavily in my own music.

Although the aforementioned musical parameters are heavily linked, they can be separated out according to how the composer views the nature of their relationships. As such, I tend to separate the relationship between shape/contour and rhythm from the relationship between harmony and register, with instrumentation looming large over both. The following two subchapters will discuss first the shape-/rhythm-axis and then the harmony-/register-axis, with instrumentation bearing a general, pervasive presence in both headings.

### 7.2. Shape and Rhythm

Thematic or melodic shaping, in which particular contours and rhythmic qualities characterize a theme or melody, offers an often highly audible feature of a composer’s musical language. But shape is obviously determined by the instruments available to the composer in each piece. Idiomatic piano writing will differ from idiomatic brass writing, and thus will shape any thematic or melodic materials.

In terms of keyboard writing, Claude Debussy is a masterful composer of shape and rhythm. Throughout both his Piano Preludes, Books 1 & 2 [1909-10 & 1912-13 respectively], this relationship forms a key aspect in the establishment of musical ideas. Of particular interest to me is ‘No. 1, Brouillards’ from Preludes, Book 2. In b. 1, two descending demisemiquaver quintuplets are heard and then repeated. The music is immediately followed in b. 2 by four straight staccato semiquavers, the latter two of which are embellished with demisemiquaver triplets. This figure is repeated once before returning momentarily to the opening gesture.
This idea of one shape succeeding or interrupting another is a prevalent feature of my own soloistic piano writing, with the addition of the broken sequence technique allowing for the music to continue on to the next shape. The rhythmic sequence in *Tre poesie per pianoforte* detailed in Figure 31 is followed immediately in b. 16 by a left hand octave and an arpeggiated chord through both hands. This idea appears once more in altered form before the music moves on to new material (Figure 49).

The woodwind and percussion writing throughout the portfolio can be viewed as an extension of this kind of shape-/rhythm-creation. In b. 7 of *Plumes* the shaping is extremely distinctive, but by its third appearance in b. 9 the upward trajectory of the shape is weakened by the prolonged phrasing, and the register change in the alto flute part during the sextuplet (b. 9⅓). This offers a musical metaphor for the nature of smoke, where no two plumes will ever take on the same form (Figure 50).
Figure 49: Tre poesie per pianoforte, mvmt. II, bb. 14-17

Figure 50: Plumes, bb. 7-9.
The distinctive shapes that feature in the piano and woodwind parts are often characterized by placing tuplet-values against straight values or against other tuplet-values in order to create a rhythmic tension, and by wide ranging contours that ascend and/or descend with great sweeping clarity. Elsewhere, in the string and brass writing, the limitations of the instruments mean that, to varying degrees, this kind of highly virtuosic writing should be used much more sparingly, and in contrast to more carefully measured writing.

My shaping of string and brass writing takes much inspiration from particular moments in Stravinsky’s Russian period, in the sense that, although rhythmically still full of invention and innovation, the parts are often less virtuosic in their contours and rhythmic units than can be found in the woodwind parts. Examples of this kind of writing are heard in The Rite of Spring, where the string writing is relatively sparse throughout the ‘Introduction’, and it is not until ‘The Augurs of Spring: Dances of the Young Girls’ that we hear a full string texture (Figure 51), during which the material very rarely becomes virtuosic in its use of contour, with most of the tuplet rhythms given to the woodwind parts. It is this careful use of the string section, which allows Stravinsky the freedom to compose more virtuosic string parts elsewhere in The Rite of Spring. I have taken this on board in my writing for brass and strings throughout the portfolio.

In the first instance the string writing in Henhwedhel is often extremely simple, characterized by long notes, sometimes held across bars in support of material in other instrumental parts. In Silverpoint, the more complex string writing heard in movements two and four counteracts the less demanding material found elsewhere. Figure 52 shows bb. 19-21 of movement four, which display strong similarities to the writing in ‘The Augurs of Spring’.

The use of shape and rhythm in each instrument’s part is of course not rigid, and there are examples of moments throughout the portfolio where brass parts are extremely demanding, as in bb. 30-31 of Henhwedhel, or where the strings have rhythmically virtuosic contours, as in bb. 7-10 in movement four of Silverpoint. Conversely, there are moments where woodwind, piano and percussion parts are technically undemanding (Plumes, bb. 18-25; Tre poesie per pianoforte, movement 2, bb. 1-3; Moods Metamorphosing, bb. 121-178, vibraphone part). In short, I have
found that it is useful for the sake of variety to strike a balance between the virtuosic and the simple when considering the construction of musical shapes.

**Figure 51:** The Rite of Spring, ‘The Augurs of Spring: Dances of the Young Girls’, Figure 13.

**52:** Silverpoint, mvmt. 4, bb. 19-21.
7.3. Harmony and Register

The main distinguishing feature of the harmony heard in the portfolio is the appearance of a limited number of contradictions to the general sense of harmony established in each piece. In whatever harmonic scheme I create, I usually wish for there to be moments that are harmonically sensuous and rhythmically stable, with smooth part-writing and clear textural contrasts, this being how my ears perceive what is musically “beautiful”. Occasionally, however, my inclinations are to puncture these passages with jarring dissonances, some of which are heightened by my use of register.

Alexander Scriabin’s *Poème-Nocturne, Op. 61* [1911] and Kaikhosru Sorabji’s *In the Hothouse* [1918] provide useful examples of what is musically “beautiful” to my ears. In bb. 1-3 of Scriabin’s Nocturne, an opposition of Scriabin’s mystic chord [set class: 6-249] and particular “octatonic collections” [set class: 6-34] is established.\(^{41}\) Both harmonic ideas move through various transpositions as the music progresses. *Figure 53* gives Jeffrey Yunek’s analysis of these opening bars, highlighting both the changes in set classes and the E♭♭ and E♭ motion that underpins those changes. This harmonic landscape is to my mind extremely sensuous and very clearly worked-out in its mystic-chord-/octatonic-scale-interchange, and thus the piece is one that I hold in very high esteem. But it could be said, however, that *Poème-Nocturne, Op. 61* contains very few harmonic surprises in the sense that all the pitches seem to behave well within Scriabin’s transpositional schemes, which, although not problematic in the music of Scriabin, is something I wish to avoid in my music.

Elsewhere, in the music of Sorabji, harmonic surprises abound. Interestingly, *In the Hothouse* begins with a similar three-note figure to that found in *Poème-Nocturne, Op. 61* (Figure 54). This is followed by a gently oscillating figure in b. 2, suggesting an E-major⁷ tonality, with a major ⁶th (C♯) allowing for alternating perfect fifths and fourths to flavour the right-hand harmonies. The F♯ in the left hand of b. 2⁵ then adds an element of spice as the flattened ninth begins to contradict the E♭-tonality. By the time the music reaches b. 4 the harmony has been stretched so much that the E♭ forms more of a pivot-note linking the C-major tonality in the left hand with what we can assume is a B-tonality in the right hand. An ascending pattern ensues after which the tonality noticeably shifts towards a very strong D♭-major flavour. The sense of harmony in *In the Hothouse* is constantly pulled towards or punctuated by more dissonant, picante chords. This is a highly pervasive feature of Sorabji’s unsystematic, improvisatory musical language, but it is also problematic in that does not necessarily create the settled listening experience that the more controlled harmonies found in *Poème-Nocturne, Op. 61* perhaps do.

I have sought to marry rigorously controlled harmonies with less stable, more harmonically unforeseen individual moments, with register playing a key role in creating that contrast. The central idea is that once the harmonic expectations are established in each composition (along
with the expectations of melody, texture, rhythm and contour), these are then contradicted by brief harmonically unexpected moments.

**Figure 54:** In the Hothouse, bb. 1-5.

_Silverpoint_ provides two useful examples of this kind of writing (**Figure 55**). After two dramatic statements the opening movement settles into a meandering, fluid texture. The flute part contains a rising figure between bb. 6-9, which ends on a C$^\sharp$ intentionally composed to contradict the very brief F$^\#$ tonality that emerges in b. 8. The cello further compounds the sense of harmonic contradiction by doubling the C$^\sharp$ four octaves below, and so register comes into play.

Elsewhere in the piece, in movement five, the opening flute figure ascends initially to a D$^\flat$ in b. 2, which straight away contradicts the augmented chord in the upper string parts. In the fourth bar a similar clash occurs between the flute’s C$^\sharp$ and the D$^\flat$ in the 1$^{st}$ violin and cello parts, once again contradicting the D-tonality of the chord heard in the upper string parts (**Figure 56**). Additionally the use of the flute’s higher register enhances the extraneous, clashing notes.
Figure 55: Silverpoint, mvmt. 1, bb. 5-10.

Figure 56: Silverpoint, mvmt. 5, bb. 1-4.
In *Plumes* the dissipating effect first heard in b. 7 (Figure 50) ends with a triad consisting of a compound tritone (clarinet to alto flute), and a major 2\textsuperscript{nd} (alto flute to flute). The dissipation in b. 8 is coloured by a tritone between the clarinet and alto flute, and a minor 7\textsuperscript{th} between the alto flute and flute. This sense of a spacious dissipation is lost by the third dissipation effect in b. 9, where a compound minor 2\textsuperscript{nd} between the clarinet and alto flute contradicts the initial harmonic expectation, causing a momentary harmonic jarring as the pitches disappear. This jarring is enhanced as the clash appears in a lower register than the dissipations on the major 2\textsuperscript{nd} and minor 7\textsuperscript{th} during the previous two bars.

In *Tre poesie per pianoforte* the high-register coda to the first movement has a tonal centre of F\♯, which is given a major flavour due to the A\♯s that occasionally appear with it. Major sonorities are thus expected but once again the harmony is diverted, this time by four compound minor 2\textsuperscript{nd} clashes (b. 59, B\♯/A\♯; b. 60, D\♯/D\♯; b. 63 D\♯/C\♯; b. 66, A\♯/A\♯).

More examples could be given of pitches that tend to contradict the established harmonic settings and how that sense of contradiction is heightened by the use of register, but for now what matters is that this balance forms a key feature throughout the portfolio and is a device through which I hope to have begun to establish an individual sense of musical language.

### 7.4. Locating Landmarks

Musical language does not lend itself easily to definition. But musical characteristics that are idiosyncratic to the composer can act as individual landmarks, which collectively form a complete understanding of the composer’s voice. What is vital to the making of a musical language is that we encounter those landmarks regularly enough to associate them with the composer; otherwise they remain ephemeral ideas and thus cannot act as defining features of the composer’s language. In composing the accompanying portfolio, I have been given an opportunity to begin to establish particular landmarks of my own, which, if heard frequently enough throughout my professional career, may later define my musical language.
Chapter Eight: Concluding Statements

8.1. From Repetition to Variation, Via Technique

“[V]ariation cannot exist without the previously assumed idea of repetition.”

Leonard Bernstein

Variation is a powerful part of how we process musical development. It is possible that the ear perceives the distance between a variation-event and its parent-event as somehow measurable through comparison with other event-relationships. The listener can therefore first, through replication, engage with the basic musical expectations established by the composer, and then, through variation, can chart the journey that certain musical objects make throughout the course of a composition. Compositional techniques provide observable mechanisms through which repetition can become variation. What this commentary offers is a collection of such techniques, which either generate or support the re-emergence of parent-events in varied form.

8.2. Personal Developments

In my search for these techniques, and for idiosyncratic musical traits, my music has undergone certain developments. Anaphora and Moods, Metamorphosing are the only two pieces from the initial two years of my doctorate to be included in the portfolio. These two pieces share a reliance on ostinati, observable in bb. 17-40 of Anaphora and bb. 22-75 of Moods, Metamorphosing. Tre

---

poesie per pianoforte signalled a departure from ostinato writing, with the broken sequence technique allowing for more varied part writing.

My approach to rhythm has also evolved towards a more polyrhythmic style, particularly in my woodwind and piano writing. In Anaphora and Moods, Metamorphosing, entire sections use only a limited number of rhythmic units (e.g. the eighth-notes in bb. 145-216 of the piano part of Anaphora, and the eighth-note triplets, in bb. 22-75 of Moods Metamorphosing). In Tre poesie per pianoforte and Plumes my writing begins to contrast this intense focus on particular rhythmic units with the juxtaposed tuplets discussed in chapter seven, creating a more varied sense of rhythm.

8.3. A Satisfying Balance: The Middle Ground, Found

Although this commentary has focussed its attentions on variation as a means of avoiding exact repetition, replication can be found in various places throughout the portfolio. Anaphora’s main motif (Figure 5) is faithfully replicated five times during bb. 17-40, with other variants in the same section maintaining a very close likeness to the parent-event. Bb. 35-38 of the piano part in Moods, Metamorphosing are repeated almost continually throughout the rest of the section (bb. 39-60), while in Silverpoint the cello figure discussed in Figure 20 appears unaltered ten times throughout the second movement.

The point here is that although my music owes much to variation, the search for the centre ground in the non-repeating/extra-repetitive Carter/Glass discussion initially requires a certain amount of repetition. In short, the middle ground can be found in a satisfactory balance of the two.
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Tomas Samuel Yardley

Anaphora

Trumpet in D & Piano
Anaphora

Anaphora was completed in January 2014, and was premiered by Simon Desbruslais (d-trumpet) and Clare Hammond (piano) on 7th March 2014 in the Mary Ogilvie Lecture Theatre at St. Anne’s College, Oxford.

In 2009 the composer attended a trumpet master class for composition students at King’s College London given by Simon Desbruslais, during which the discussion turned to the musical opportunities afforded by a D trumpet, particularly in the higher registers. This workshop provided the early inspiration behind the composition of Anaphora.

During the opening passages several musical ideas are established, and are then recycled throughout the remainder of the work with varying degrees of similitude. In this instance, this kind of musical endophoric referencing allows themes and melodies to reappear in altered states providing at once a continually shifting yet highly familiar sound world.

Accidentals last throughout the measure, and are occasionally repeated within the bar to aid reading.

Tomas Samuel Yardley, 2014
Anaphora
for Trumpet in D and Piano

Doloroso e agitato $\approx$ C. 90

Poco rubato 

Trumpet in D

Piano

Tempo giusto $\approx$ C. 90

\[ \text{ca. 9.5 mins} \]

Accidentals carry through the bar.
The score is in C.
This material should quietly emerge from the previous held chord.

Presto con moto $j = C. 145$

una corda

Presto con moto $j = C. 145$

una corda

sempre p

sempre con poco

rit.

tre corde

rit.
Precipitando, energico

81

83
accel. Calmo ma crescendo \( \text{C. 140} \)

\[ \text{ffp} \quad \text{mf} \]

accel. Calmo ma crescendo \( \text{C. 140} \)

\[ \text{ppp} \quad \text{p} \quad \text{mf} \quad \text{f} \]
Soave, calmo \( \frac{q}{101} \) = C. 70

Soave, calmo \( \frac{q}{101} \) = C. 70

con sord.

fff express. PPP

Soave, calmo \( \frac{q}{101} \) = C. 70

fff

con sord.
Ritmico, con tensione \( \text{= C. 90} \)

Ritmico, con tensione \( \text{= C. 90} \)

\( p \)

\( p \)

(8)

loco

tre corde

(pp)

ppp
Prestissimo \( \dot{=} \) C. 105
(or faster if possible)

Prestissimo \( \dot{=} \) C. 105
(or faster if possible)

\( \text{pp} \)

\( \text{mf} \)

loco

\( \text{mf} \)

\( \text{loco} \)
Tomas Samuel Yardley

Moods,
Metamorphosing

Trumpet in B flat
Horn in F
Tenor Trombone
Clarinet in B flat
Vibraphone & Marimba
Piano
Programme Notes

*Moods, Metamorphosing* was composed in London, in an apartment overlooking the River Thames, out of which it was possible to observe the many journeys that were made by countless (extra)-ordinary people simply going about their lives. The activities of the area’s inhabitants offered it a plenitude of moods, which varied with each passing hour. One of the most poignant features of these moods was the manner in which they mutated. Instead of sudden changes or a deliberate sense of progression, there occurred synchronously a gradual increase in a new mood and the gradual decrease in the previous mood, in an effect similar to that of audio crossfading. This formed the central concept of the piece, where instead of calculated transitions designed to link material together, the moods quite simply overlap in an incidental, unassuming manner.

The piece was completed in May 2013, and has an approximate duration of 8.5 minutes.
Moods, Metamorphosing

Lento, surreale \( \neq \) ca. 60

The score is in C.
Accidentals carry through the bar.

ca. 8.5 minutes

ppp
consord.
p
mf

Trumpet in Bb
Horn in F
Tenor Trombone
Clarinet in Bb
Motor off
(Soft Sticks)
Vibraphone
Piano
A tempo \( \frac{4}{8} \) – ca. 60
Allegro, frammentato ma con moto \( \text{\textdollar} \) ca. 120

\( \text{Tpt.} \)

\( \text{Hn.} \)

\( \text{Tbn.} \)

\( \text{Mar.} \)

\( \text{Pno.} \)
Il più lontano possibile con sord.

PPPP

Il più lontano possibile con sord.

PPPP

Il più lontano possibile con sord.

PPPP
A tempo $\frac{3}{4}$ = ca. 60

Il più lontano possibile
Tre poesie
per pianoforte

Tomas Samuel Yardley
Tre poesie
per pianoforte

_{Tre poesie per pianoforte}_ was completed in October 2014, and is dedicated to Rob Keeley, who gave its premiere on July 22\textsuperscript{nd} 2015 in the Strand Campus, King’s College London.

The piece is to be played with a strong sense of rhythmic improvisation, except where otherwise stated. The performer is therefore, within reason, free to stretch the tempi and rhythms at their discretion. Accidentals carry through the bar, although some are repeated to aid reading.

_Tomas Samuel Yardley, 2015_
Tre poesie
per pianoforte

Dedicato a Rob Keeley

I
Sempre agitato \textit{J} = ca. 50

Leggero \textit{J} = ca. 55
rit.

lunga pausa
II

Tenero \( \frac{4}{4} \) \( \frac{1}{3} \) \( \text{mp} \) sempre legatissimo
f
pp
c. 85

 sempre legatiss.
Più meno $\breve{\text{\textaccent Grave a Grave}} = \text{ca. 55}$

Tenerissimo $\breve{\text{\textaccent Grave a Grave}} = \text{ca. 30}$
Intricato \( j = \text{ca. 75} \)

\[ \text{tre corde} \quad p \quad \text{una corda} \quad \text{PPP} \]

\[ \text{sempre legatissimo} \]
\( \text{\textit{una corda}} \)
Plumes

Flute
Alto Flute
Clarinet (Doubling Bass Clarinet)
Plumes

Plumes was completed in March, 2015 and received its premiere on 22nd July, 2015 in the King’s College London Chapel, Strand Campus, by Rowland Sutherland (flute), Helen Whitaker (alto flute) and Neyire Ashworth (clarinet, bass clarinet).

The piece is intended to evoke images of plumes of smoke rising and dissipating in various patterns. The listener is free, however, to form other visual associations with the music’s numerous, distinct shapes.

Tomas Samuel Yardley, 2015
Plumes

Lento, delicato

Flute

Alto Flute

Clarinet in Bb

Leggero

Fl.

A. Fl.

Cl.

Tomas Samuel Yardley
March 2015

The score is in C.
Accidentals carry through the bar.

ca. 10.5 minutes

ppp
fff

ppp
fff

ppp
fff

ppp
fff

ppp
fff

ppp
fff

ppp
fff

ppp
fff

ppp
fff

ppp
fff

ppp
fff

ppp
fff

ppp
fff

ppp
fff

ppp
fff

ppp
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ppp
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ppp
fff

ppp
fff

ppp
fff

ppp
fff

ppp
fff

ppp
fff

ppp
fff

ppp
fff

ppp
fff

ppp
fff
Molto soave $\cdot = ca. 100$

Senza misura $\cdot = ca. 90$

Barlines function as approximate pitch alignment guides only.
Pause for all performers to align

Pause for all performers to align

Pause for all performers to align
Lento, misterioso = ca. 60

Fl. A. Fl. B. Cl.

mf p ppp

63 & 74

fp fp

63 & 74

fp fp

67 & 74

fp fp

67 & 74

fp fp

67 & 74

fp fp

67 & 74

fp fp

67 & 74

fp fp

67 & 74

fp fp

67 & 74

fp fp

67 & 74

fp fp

67 & 74

fp fp

67 & 74

fp fp

67 & 74

fp fp

67 & 74

fp fp

67 & 74

fp fp

67 & 74

fp fp

67 & 74

fp fp

67 & 74

fp fp

67 & 74

fp fp

67 & 74

fp fp

67 & 74

fp fp

67 & 74

fp fp
Take Clarinet

Senza misura \( \frac{\text{dotted quarter note}}{4} = \text{ca. 60} \)

\( \text{Sim. bar (45)} \)

\( \text{(103)} \)

\( \text{Fl.} \)

\( \text{(107)} \)

\( \text{Fl.} \)

\( \text{(111)} \)

\( \text{Fl.} \)

\( \text{Cl.} \)
Tomas Samuel Yardley

Henhwedhel

for Orchestra

(2015)
ORCHESTRA

2 Flutes (1 = Piccolo)
2 Oboes
2 Clarinets in B-flat
2 Bass Clarinets
2 Bassoons (2 = Contrabassoon)

4 Horns in F
4 Trumpets in B-flat
2 Tenor Trombones
Bass Trombone
Tuba

Percussion (3 Players)

Player 1:
2 Timpani – ranges circa:

Players 2 & 3:

Bass Drum
Tambourine (mounted on a stand, struck with the hand)
Side Drum (2 standard drum sticks and 2 wire brushes)
Wood Block (2 sticks)
Large Gong
Vibraphone (motor off, pedalling given, 4 standard mallets)

Crotales (I.e. throughout) – range:

Strings (4, 12, 10, 8, 6 players)

The score is notated in C.
Accidentals carry through the bar, although further accidentals are occasionally given for the sake of clarity.
SUGGESTED PERCUSSION MAP

This map merely offers a suggested percussion layout with a view to easier instrumental changeovers. For the most part, the positions of the percussion instruments are entirely at the performers’ discretion*.

Large Gong: If a large gong is not available, replace with a higher-pitched gong if possible or omit the note completely.

*With the exception of the Side Drum and Wood Block, and the Bass Drum and Mounted Tambourine, which in both cases must be positioned in close proximity to each other.
Henhwedhel

Lento, tenso \( \approx \) ca. 55

Flute 1
Flute 2
Oboe 1
Oboe 2
Clarinet in Bb
Clarinet in Bb
Bassoon
Bassoon
Contrabassoon

Timpani
Percussion 1
Percussion 2

Violin I
Violin II
Viola
Violoncello
Double Bass

Score is in C.
Accidentals carry through the bar.

ca. 16 mins
Più mosso, soglando ma ca. 75

Più mosso, soglando ma ca. 75

Più mosso, soglando ma ca. 75
Meno mosso, seguendo \( \text{\textit{j}} \approx \text{ca. 65} \)

Instrumentation:
- Fl. 1
- Ob. 1
- Ob. 2
- Cl. 1
- Cl. 2
- Perc. 1
- Perc. 2
- Vln. I
- Vln. II
- Vla.
- Vc.
- Db.
- Hn.
- Vibraphone
- Wood Block Only
- B.D.

Dynamic markings:
- \( \text{ppp} \)
- \( \text{pp} \)
- \( \text{mf} \)
- \( \text{f} \)

Other markings:
- \( \text{espress.} \)
- \( \text{solo} \)
- \( \text{dolcis.} \)
- \( \text{take Vibraphone} \)
- \( \text{Wood Block Only} \)

Other notations:
- \( \text{W.B.} \)
- \( \text{B.D.} \)
- \( \text{(W.B. \\ Gong)} \)

Sheet music elements:
- Notes
- Rests
- Slurs
- Fermatas
- Dotted notes
- Staccato
- Legato
- Accent marks
- Dynamics
- Expression marks
- Registration
- Instrumentation
- Wood Block Only
- Vibraphone
- B.D.
Oboe 1: Begin to pause over notes during feathered tremolo. The number of notes is left to the performer’s discretion.

Violins: Pause for at least four beats after Oboe 1 completes feathered tremolo.

Viola 1:

Lunga pause

Cello:

Lunga pause

Flutes 2:

Lunga pause

Oboe 1:

Lunga pause

Ob. 1 & 2

Vln. I

Vln. I

Ob. 1

Cl. 1

Db.

Fl. 2

Fl. 2

Picc.

Cl. 1

Vln. I

Ob. 1

Picc.

Cl. 1

Db.

Fl. 2

Fl. 2

Picc.

Cl. 1

Db.

Fl. 2

Fl. 2

Picc.

Cl. 1

Db.

Fl. 2

Fl. 2

Picc.

Cl. 1

Db.

Fl. 2

Fl. 2

Picc.

Cl. 1

Db.

Fl. 2

Fl. 2

Picc.

Cl. 1

Db.

Fl. 2

Fl. 2

Picc.

Cl. 1

Db.

Fl. 2

Fl. 2

Picc.

Cl. 1

Db.

Fl. 2

Fl. 2

Picc.

Cl. 1

Db.

Fl. 2

Fl. 2

Picc.

Cl. 1

Db.

Fl. 2

Fl. 2

Picc.

Cl. 1

Db.

Fl. 2

Fl. 2

Picc.

Cl. 1

Db.

Fl. 2

Fl. 2

Picc.

Cl. 1

Db.

Fl. 2

Fl. 2

Picc.

Cl. 1

Db.

Fl. 2

Fl. 2

Picc.

Cl. 1

Db.

Fl. 2

Fl. 2

Picc.
Tomas Samuel Yardley

Silverpoint

Flute & String Quartet
Silverpoint

Silverpoint was originally conceived as part of a collaborative project with silverpoint artist Adrian Haak Jr., in which musical and artistic stimuli were exchanged between the artist and the composer at the point of pre-composition so that both the resulting sets of artworks could be interdependent, rather than one set reacting solely to the other.

Corresponding artworks:

Movement I: From One Thing Into Another
Movement II: Sursum (a Moriah)
Movement III: Ontology & Home
Movement IV: As
Movement V: Consanguine

Tomas Samuel Yardley, 2016
Silverpoint

I

Lento, soave \( \frac{3}{4} \) = ca. 60

Flute

Violin I

Violin II

Viola

ViOLONCELLO

Accidentals carry through the bar.

Tomas Samuel Yardley
November 2015
Lento ma leggero $\frac{\text{G}}{\text{G}} \approx \text{ca. 80}$
Lento, quasi-sfocato \( \dot{=} \) ca. 80

Strings: Do not jerk fingers along the fingerboard between notes.
Form a gradual pseudo-glissando throughout each glissando passage.

poco rall., . . . Leggero \( \dot{=} \) ca. 70

Legend: (arco)
Strings: Come to an abrupt stop when the flute's pitch bend finishes.
Tomas Samuel Yardley

Two
Graveyard
Sonnets

Words by Charlotte Turner Smith

Soprano &
Piano
Two Graveyard Sonnets

“Sonnet XLIV: Written in the Churchyard at Middleton in Sussex”

Press’d by the Moon, mute arbitress of tides,
While the loud equinox its power combines,
The sea no more its swelling surge confines,

But o’er the shrinking land sublimely rides.
The wild blast, rising from the Western cave,

Drives the huge billows from their heaving bed;

Tears from their grassy tombs the village dead,
And breaks the silent Sabbath of the grave!

With shells and sea-weed mingled, on the shore

Lo! Their bones whiten in the frequent wave;

But vain to them the winds and waters rave;

They hear the warring elements no more:
While I am doom’d – by life’s long storm opprest,
To gaze with envy on their gloomy rest.

“Sonnet LXVII: On Passing over a Dreary Tract of Country, and near the Ruins of a Desolated Chapel, during a Tempest”

Swift fleet the billowy clouds along the sky,

Earth seems to shudder at the storm aghast;

While only beings as forlorn as I,

Court the chill horrors of the howling blast.

Even round yon crumbling walls, in search of food,

The ravenous Owl foregoes his evening flight,

And in his cave, within the deepest wood,

The Fox eludes the tempest of the night.

But to my heart congenial is the gloom

Which hides me from a world I wish to shun;

That scene where Ruin saps the mouldering tomb,

Suits with the sadness of a wretch undone.

Nor is the deepest shade, the keenest air,
Black as my fate, or cold as my despair.
Two Graveyard Scenes
Sonnet XLIV

Words by Charlotte Turner Smith

Press'd by the Moon,

mute arbiter of tides,

While the loud equinox its
power combines,

The sea no more its

swelling surge confines

f

mf

P

PPP

P

PPP

mf

P

PP

PPP

1/2
But o'er the shrinking land

sublimely rides.

The wild blast, rising from the Western cave,
Drives the huge billows from their heaving bed;

Tears from their grassy

tombs the village dead, And breaks the silent
sabbath of the grave!

With shells and seaweed mingled, on the shore

Lo! their bones

whitten in the frequent wave;
But vain to them the winds and waves;

They hear the wringing elements no more:

1/2
While I am doom'd by life's long storm op-prest,
To gaze with en -

Dolente, scuro

Lento, flessibile e scorrevole $q = \text{ca. 30 rit.}$

Sonnet LXVII

* Allow sounds to accumulate.
Moderato \( \text{\textit{} - ca. 60} \)

**Moderato \( \text{\textit{} - ca. 60} \)**

**leggero, intricato**

\textit{loco}

\begin{align*}
\text{pp} & \quad \text{fff} & \quad \text{mf}
\end{align*}

\( \text{Half pedal where indicated to allow some of the sounds to bleed carefully into the following passages.} \)

1/2 \textit{sempre legatiss.}

\( \text{sempre} \)

\( \text{come sopra} \)

Swift

\( \text{ff} \)

\( \text{fleet} \)

\textit{billoowy clouds along the sky.}

\textit{Earth seems to}

\( \text{fff} \)

\( \text{loco} \)

1/2
shudder at the storm aghast;

While only beings

as forlorn as I,

Court the chill
Più mosso, intricato \( \sim \) ca. 65

11

E - ven round yon crumb - ling

Più mosso, intricato \( \sim \) ca. 65

* Allow sounds to accumulate.

walls, in search of food,

F-natural at pitch
cresc.

The ra - ve - nous Owl fore -

loco

ra

loco

loco

loco

ra

fence 1/2

"
goes his evening flight, And in

his cave, within the deepest wood.

The Fox excludes the

Come sopra
tempest of the night.

A tempo

\[ q = \text{ca. 30 rit.} \]

\[ \text{lunga pausa} \]

\[ \text{loco} \]

\[ q = \text{ca. 45 rit.} \]

\[ \text{lunga pausa} \]

\[ \text{Meno mosso, scuro} \]

\[ q = \text{ca. 45} \]

But to my heart

\[ \text{Meno mosso, scuro} \]

\[ q = \text{ca. 45} \]

\[ \text{sempre legatiss.} \]
conge- nial

is the gloom

Which hides me from a world I wish to
That scene where Ru in saps, the moulder ing

From the tomb,

loco
Suits with the sadness

of a wretch undone.
Nor is the deepest shade, the keenest air,

Black as my fate, or cold as my despair.

* Allow sounds to accumulate until the pedal is lifted.
Tomas Samuel Yardley

Lōtós

Bass Flute
Lōtós

*Lōtós* (the ancient Greek translation of *lotus*) is a programmatic work depicting Odysseus’s mythical journey to the island of the lotus-eaters.

Nine senza misura passages, separated by lunga pausa, depict the nine days during which Odysseus and his crew are blown off course while rounding Cape Malea, the southernmost tip of the Peloponnese.

Upon their arrival on the island of the lotophagi, Odysseus sends three of his crew to seek out the locals. The three characters are unveiled in turn during the initial tempo giusto passages, the first a languid, lazy character, the second a flighty, excitable character and the third an airy, daydreaming character. The islanders are welcoming, and eventually introduce the three crewmen to the lotus plant, which induces in them a blissful apathy, represented musically by passages containing sung multiphonics.

When Odysseus finds his crewmen, a further three senza misura passages are heard, as he rouses each of them from their intoxicated state.

Finally a fast, scalic passage ensues, as Odysseus and his crew beat a hasty retreat from the island, the wind carrying them off on their journey.
Performance Notes

lunga pausa = ca. 4 seconds

pausa = ca. 2 seconds

breve pausa = ca. 0.5 seconds

Air Sound (A.S.)
Denoted by a dashed note head. No pitches should be heard during the execution of this technique, except where a pitch emerges from the air sound. A “sshh” sound should accompany the technique to reinforce the windy effect it creates.

Soffiata
Overblow the note to give a loud, breathy marcato sound. Stand-alone notes have a designated diamond note head, and the pitch should be strictly observed. Crossed note heads are of indeterminate pitch, with the overblown effect taking priority over the pitch itself.

Pitch Bend Upwards
Bend the pitch from the starting note to the bracketed pitch. Consecutive bends are to be performed in one breath under one phrase mark.

Whistle Tones
Play a slow stream of air breaking over the far edge of the embouchure hole.

Harmonics
Shift freely through the harmonic series. While the performer should observe the given dynamics, they are free to change the tempo as little or as much as they wish as they execute this technique.

Eolian Sounds (E.S.)
These should be very breathy, pitched tones and are given as diamond note heads.

Sung Multiphonics
These are transposed to reflect the true interval, as opposed to the true pitch.

Feathered Pitch Bend Downwards
Bend the pitch downwards while performing a feathered staccato rallantando.
Score is an written an octave above the sounding pitch. Accidentals carry through tempo giusto measures. During senza misura passages accidentals only apply to the note they immediately precede. Senza misura passages should always be played with an airy sound quality.

ca. 9 minutes

Lotós

Senza Misura

A.S.

<table>
<thead>
<tr>
<th>Pitch dynamic</th>
</tr>
</thead>
<tbody>
<tr>
<td>ca. 5&quot;</td>
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</table>

Whistle tones. Continually recycle the boxed notes in the given order for ca. 8".

ca. 10"   ca. 6"

ord. accel.  soffiata  ord. accel.  soffiata

ord.  soffiata  ord. accel.  soffiata

ord.  soffiata  ord. accel.  soffiata

ord.  soffiata  ord. accel.  soffiata

Shift at will between harmonics

Tomás Samuel Yardley
March 2016

Bass Flute
Tempo giusto, languido – ca. 50

No breathy sounds

Più mosso, leggero – ca. 70

Flzg.

Languido – ca. 50

Più mosso, arioso – ca. 60

E.S.

Languido – ca. 50

(sing)

Crescendo should eventually meet voice's dynamic marking
Senza Misura

Tempo giusto, quasi-allegro \( \approx \text{ca. 85} \)

There must always be a strong dynamic contrast between marcato notes and non-marcato notes.
Lento, poco misterioso \(\text{\~\textquoteright}\text{\~\textquoteright}\text{\~\textquoteright}<\) ca. 35

Flzg. with an airy sound quality

Senza Misura

c.a. 8\("\)

A.S.

ord. \(\approx\) \(\approx\) \(\approx\) \(\approx\) \(\approx\) \(\approx\) \(\approx\) \(\approx\) \(\approx\)

Pitch dynamic

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

molto rall.

Into Flzg.

dim.