

Portfolio of Original Compositions for Various Performing Groups with Detailed Analyses

By

Greg Felton

Master of Arts

Waterford Institute of Technology

Supervisor

Dr. Eric Sweeney

Volume 1 of 2

Analyses

Submitted to the Waterford Institute of Technology, May 2011

Portfolio of Original Compositions

By Greg Felton

Abstract

My main reasons for undertaking this research were to benefit from the wealth of possibilities inherent in contemporary classical music along with creating a substantial body of original work.

As a jazz musician and composer with a good understanding of Indian classical music, folk, free improvisation and pop music I felt that learning from and utilising contemporary classical music would greatly enrich my compositional abilities. This research has yielded works with a variety of musical styles and instrumentation; a solo piano sonata that marries serialism with the rhythmic language of Indian classical music, a modern string quartet with a traditional foundation, a contemporary SATB choral piece with piano accompaniment using the text from a Czech poet, a piece for the modern jazz trio 'White Rocket' that uses random compositional techniques mixed with Indian rhythms, an orchestral piece influenced by jazz and Indian music and a piece for a mixed sextet influenced by minimalism and African polyrhythm.

My main aim was to explore methods and techniques that were unknown to me and to develop my compositional strengths in such a way as to forge a unique and personal language.

Piano Sonata No. 1

Solo piece in three movements.

Instrumentation

Piano

September - November 2008

Analysis of 'Piano Sonata No. 1'

Introduction

This piano sonata began as an exercise in exploring the sound world of the '2nd Viennese School' of composers: Schoenberg, Berg and, in particular, Webern. I have recently studied piano works by Schoenberg and Webern and familiarised myself with some of the underlying processes involved, namely serialism, which is the technique I have used to determine the pitch material. Another significant element of the creation of this sonata is the use of Indian rhythmic techniques. This sonata is in three movements.

Movement 1

Overview of form

This opening movement is in five sections. As the material from Sections A, C and E is interlinked as is the material from Sections B and D, this movement can be described as being in arch form.

Section A consists of two rhythmic themes and is very percussive, using both hands alternating continuously in a syncopated manner.

Section B consists of a main melody and a cross-rhythmic counter line.

Section C contains the main rhythmic theme of Section A along with a set of variations based on the secondary rhythmic theme of Section A.

Section D consists of a similar melody to Section B in canon form.

Section E uses the main rhythmic elements of Section A played in reverse order.

Rhythm & Form

Because I have a keen interest in South Indian classical music, and have spent time in India studying the rhythmic complexities, I have used some of these concepts with regard to the rhythmic motifs and form.

Rhythm is a very important element of this composition. With regards to writing twelve-tone music, it is an area with a huge potential for creativity, especially when your note choices are pre-determined. This piece was written as a rhythmic composition. The rhythmic and formal design was decided upon before any pitches were incorporated.

This movement is made up of three main rhythmic themes.

Theme 1 is derived from a South Indian cadential rhythmic pattern and forms the basis of most of the material in this work:



Each time this theme occurs the length of the phrase in which it is contained is decreased.

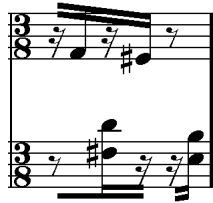
Theme 2 is chordal and is based on the 'Scotch snap' rhythm:

A musical score for a 4-measure phrase in 4/4 time, marked *p*. The notation is presented in grand staff format (treble and bass clefs). The melody in the treble clef consists of quarter notes: C4, D4, E4, F4, G4, A4, B4, and A4. The bass clef accompaniment consists of quarter notes: C3, D3, E3, F3, G3, A3, B3, and A3. The piece is in the key of C major.

Each time this theme occurs the length of the phrase containing it increases.

This concept of simultaneous diminution and augmentation is an important structural element of South Indian Classical music. The regular appearance of Theme 2 throughout this movement contributes to thematic unity and as it generally ends with a sustained chord, points of cadence are created.

Theme 3 is a short motif in 3/8 which generally appears alongside Theme 1. This bar serves to upset the regularity of downbeats which occur from the usage of Theme 1. Wherever this time signature occurs the same rhythmic definition is found:



These three motifs permeate the entire piece. At times they are repeated exactly, in entirety or in part, and at other times they are varied or extended to suit my own aesthetic judgement.

Theme 1 is made up of using 16th notes and 8th notes. Within a bar of 4/4 there are sixteen 16th notes and the phrasing and accenting of this phrase creates sub groups of notes in the pattern 6, 5, 5. Due to the irregularity of the groupings this rhythm has a lot of forward motion and sustained intensity.

This phrase was originally played using the Indian rhythmic syllabic language known as 'konnokol' or 'solkattu'. This language is used as an aid to the learning of drums and complex rhythms and is designed to mimic the sounds of the drum. The syllabic phrase accompanying this rhythm is:



The phrase itself demonstrates the principle of rhythmic reduction that appears frequently throughout this movement.

TA KA JU NO TOM

TA JU NO TOM

JU NO TOM

TA TOM

I have split this rhythm up over both hands on the piano. Generally the hands alternate, which creates an effect comparable to the playing of drums. Sometimes one hand will repeat an attack to fit the demands of the rhythm itself.

Section A

Looking at Theme 1 and its variations we will see the following rhythmic design using diminution in this section:

Bars 1-3	Phrase lasts 8 beats
4-6	Phrase lasts 7 beats
9-11	Phrase lasts 7 beats
12-14	Phrase lasts 6 beats
17-19	Phrase lasts 6 beats
20-21	Phrase lasts 5 beats

For ease of explanation we will take the main unit of Theme 2 to be a two-beat motif where the scotch snap rhythm is played on both beats. This motif also occurs displaced to a different part of the beat but we will take it to be the same.

The augmentation of Theme 2 can be shown as follows:

Bars 7-8	Theme occurs 2 times
15-16	Theme occurs 3 times
22-23	Theme occurs 4 times

The length of sustain in the final chord of Theme 2 does not adhere to a prescribed rhythmic design. I decided on the lengths as I saw fit to suit each particular situation.

Section B

In bars 25-36 the rhythm of the main melody, which occurs firstly in the right hand, is identical to Theme 1 plus Theme 3. In bars 31-36 this pattern is played in the left hand. This pattern is effective because although it has a clear sense of internal structure, due to the repetition and displacement of the groupings of 5, its relationship to the pulse is not instantly identifiable. This pattern is sounded simultaneously with a cross-rhythmic melody. This melody is constructed from dotted quarter and dotted 8th notes in the pattern shown below:



Because of the exclusive usage of dotted notes, a new tempo is suggested. Though this polyrhythmic relationship of 2 over 3 is familiar, this pattern is not immediately recognisable. While the treble clef melody resolves to the same point every 2 bars (beat 1 of the 4/4 bar) the bass clef melody remains unresolved each time these points occur. The overall effect is one of rhythmic intrigue due to the tension created by the lines each having strong internal structures and the unobvious relationship of the lines to each other and of the lines to the pulse.

Section C

Theme 1 continues its diminution from where it left off at bar 21. This time it is uninterrupted by Theme 2 until bar 50.

Bars 38-39	lasts 5 beats
40-41	lasts 4 beats
42-43	lasts 4 beats
44-45	lasts 3 beats
46-47	lasts 3 beats
48-49	lasts 2 beats

At this point a set of variations begins using Theme 2, this time pared down to a one-beat rhythmic figure with changing pitches:



Again the principle of simultaneous diminution and augmentation is utilised. The amount of beats decreases while the frequency of occurrences of the theme at first increases and then, due to lack of temporal space, decreases. The overall effect is one of cumulative activity.

Bars 50-51	Theme occurs 2 times over 8 beats
52-53	Theme occurs 3 times over 7 beats
54-55	Theme occurs 3 times over 6 beats
56	Theme occurs 4 times over 5 beats
57	Theme occurs 3 ½ times over 4 beats
58	Theme occurs 3 times over 3 beats
59	Theme occurs 2 ½ times over 2 beats
60	Theme occurs 1 time over 1 beat

Excerpt of Theme 2 variations:

The image shows a musical score excerpt for Theme 2 variations, starting at bar 50. The score is written for piano (pp) and features a treble and bass clef staff. The key signature has one sharp (F#). The time signature is 4/4. The score includes various articulations such as accents (>) and slurs. A circled number (8) is placed above the first measure of bar 50. The score ends with a double bar line at the end of bar 60.

Theme 2 is used as a point of cadence in bars 61-62 to close this section.

Section D

This section uses material from Section B in canon form. The main phrase is built up of two elements: Theme 1, and the dotted 8th motif from the melody in Section B. Again I have incorporated the idea of rhythmic reduction for this melody: 7 beats, 6 beats, 5 beats and then variations. The melodies are 2 beats apart and, upon reaching bar 70, they become 1 beat apart.

Melodies in canon form:

In bars 73-75 triplets are played here for the only time in the movement. This phrase is an approximation of the preceding dotted 8th note phrase. Taking an overview of this phrase (i.e. one that is not temporal-specific) the structure can be regarded as consisting of 3 points of attack followed by a short pause. This structure is recreated and paraphrased by being expressed through 8th note triplets. In bar 75 the same concept is applied and now the motif appears as 16th notes.

This gear-shifting is another important structural element of South Indian Classical music. Often musical phrases are first played as 8th notes, then played as 8th note triplets and finally played as 16th notes. This is usually a very convincing musical effect, especially if this rhythmic gear-shifting coincides with an increase in dynamics and complexity leading to a well-executed climax.

Section E

This section returns to Theme 1 and takes its rhythmic structure from Section A. Here the changes in the bar lengths occur in a reverse order to Section A, enlarging rather

than reducing. Also, at this point, the bars of 3/8 from Theme 3 occur infrequently only. The design is as follows:

Bar 79	Phrase lasts 5 beats
80-81	Phrase lasts 6 beats
82-83	Phrase lasts 6 beats
84-86	Phrase lasts 7 beats
88-90	Phrase lasts 7 beats
91-93, 95-96	Phrase lasts 8 beats

In bar 91, Theme 1 returns to the original 4-beat rhythm allowing the pulse to stabilise before the end of the movement. In bar 94 Theme 3 upsets the rhythmic symmetry one last time before Theme 1 again brings stability. This rhythmic stability helps with the resolution of this movement.

Pitch Choice

All of the pitches in this movement are derived from the following 12-tone row:

C D^b G F F[#] D E^b B E A A^b B^b

I composed this row by means of singing. I was pleased with the intervallic result as its pitch class set, 430221, has a good balance between dissonant intervals – 4 minor 2nds and 1 tritone -, consonant intervals – 2 major 3rds and 3 major 2nds – and neutral intervals – 2 perfect 4ths.

I feel that an exhaustive analysis of the harmony created by the using the twelve-tone system, in this situation, would be overly complex and not particularly beneficial. Instead I will explain how I applied the notes from the row throughout the piece.

One of my concerns while writing this movement was to ensure that everything was performable, particularly with regard to the points where one hand plays two different dyads in quick succession. Due to the difficulty in performing these tasks, which occur frequently throughout the piece, I felt I should lighten the performer's load (especially as

I wanted to see the piece being performed!) Therefore during this movement where dyads are performed with one hand, the interval never exceeds an octave i.e. I would opt for a major 7th or a flat 2nd rather than a flat 9th. Also I would opt for either a small interval followed by a larger one or vice versa, usually with the smaller interval being contained within the larger one, as this falls easily under the pianist's hand.

In this movement only the original form of the tone-row is used. This was a conscious decision as I felt there would be sufficient rhythmic variation along with octave transposition to interest the listener and to disguise the row.

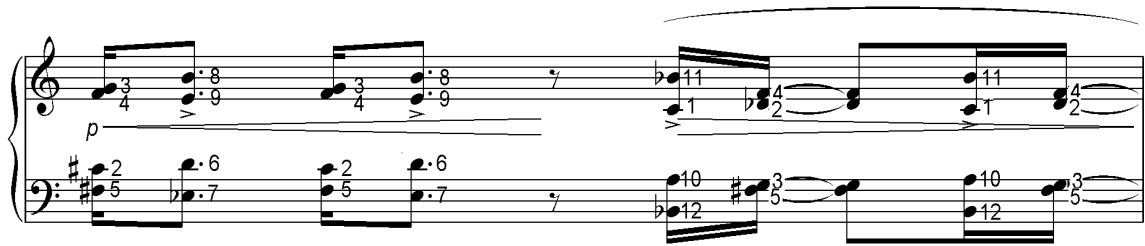
Section A

In sections A, C and E the row is used in a cyclical fashion, going from pitch 1 sequentially to pitch 12.



The pattern is briefly changed by the use of the scotch snap theme but then continues as before.

As Theme 2 is constructed using a series of four-note chords, I had the freedom to place the pitches in the vertical order of my choice. Here my ears became the most important part of the compositional process with regards to the choice of chords. Being trained as a jazz musician and having listened to classical music for most of my life, I decided to specifically steer clear of any chordal shapes or interval patterns that I had any previous association with and to pick sounds attractive to my ears. To me, these chords have a pleasing amount of dissonance due to their intervallic structure and polytonal implications.



Section B

Main Melody

For the main melody of this section I decided that a smooth melodic approach would contrast well with the more jagged and syncopated approach of Section A. I therefore chose patterns that would imply the melodic motion of folk music or pre 20th century classical music. To this end I utilised small melodic leaps where possible i.e. 2nds and 3rds. I also created small pockets of these melodic structures and separated them by wide melodic leaps; e.g. on beat 2 of bar 25 the F[#] leaps up a flat 9th to G.

Another technique that I adopted to augment this melodic section was one of treating the 12-tone row in a different manner. For this I chose a pattern, based on the rhythmic figure, which would shift back along the row to an earlier starting point i.e. beginning at bar 25:



Doing this has helped to create a feeling of familiarity due to the repetition of certain pitches.

To complete the pattern I carried on through the row. This was done deliberately as it covers more harmonic ground rather than leaving a portion of the pitches unsounded.

Counter Melody

The pitches used here are taken from the treble clef material in the first 3 bars of the movement. Though these pitches were created randomly there is an element of diatonicism about them. They could belong to a C7 chord with occasional chromatic embellishments which also contributes to a feeling of familiarity. The practice of taking previous compositional elements, especially randomly generated ones, and interweaving them back through the fabric of the piece, very much appeals to my aesthetics.

When the counter line switches to the treble clef in bar 31 the texture thickens from single notes to dyads. This decision was made to create forward motion and a sense of development. The second set of pitches was taken directly from the tone-row. There are three occasions where individual pitches from these two pitch sets are identical (start of bar 31, and twice in bar 35) and these appear as octaves. I feel it should be made clear that, because I am not a serial purist, these results do not offend my aesthetic values in the least and I am happy for them to appear within this piece!

Section C

If we now take the scotch snap motif to be one beat in duration then, up to this point, it has occurred nine times in total. I have numbered each of these appearances from 1 to 9 and treated them in a fashion similar to the generation of pitches from the main melody in Section B. Please note that the chord sets numbered 7, 8 and 9 are identical to 3, 4 and 5. The following presentation shows their distribution from bars 50-62:

1	2								
1	2	3							
	2	3	4						
		3	4	5	6				
			4	5	6				
				5	6	7			
					6	7	8		
						7	8	9	9

It will be noticed that although the pattern is repetitive it moves gradually along to cover all 9 chord sets.

Section D

The melody of this section is essentially the same as the melody in Section B. The difference is that the notes from the bar of 3/8 (Theme 3) are now stretched over 3 beats using a dotted 8th note pattern. Again the technique skipping back along the row to earlier starting points is utilised:



On occasion I have made slight modifications to the pattern. By keeping the two melodies separated with regard to what area of the row they cover, I endeavoured to maximise the potential harmonic richness. At other times the pattern is altered to suit the new rhythmic motifs.

Section E

The ordering of pitches in this section continues in a cyclical manner around the 12-note row, identical to the approach used in Sections A and C.

Texture/ Chord Thickness

Over the course of the movement the chordal texture of Theme 1 thickens using an additive process similar to the process used in the creation of the form. This texture begins as a mixture of single notes and dyads and builds up to alternating triads by the end of the piece. In Section E this thickening texture coincides with building dynamics along with a fall and a rise of contour.

This table shows the amount of notes played in each hand. The first digit in the right hand column refers to the right hand, and the second refers to the left hand.

Bars 1-6, 9-14, 17-21	1 + 2
Bars 38-43	1 + 2
Bars 44-49	2 + 2
Bars 79-81	1 + 2
Bars 82-87	2 + 2
Bars 88-94	2 + 3
Bars 95-96	3 + 3

Note:

Apart from looking at the form, I have opted to explain movements 2 and 3 section by section as opposed to explaining the individual elements separately for the whole movement for clarity.

Movement 2

This movement is influenced by Anton Webern's 'Variations for Piano, opus 27'. The salient characteristics of Webern's 'Variations' are as follows: use of mirrored phrases in small and large forms, a rarefied emotional palette, a conception of form and theme construction that breaks away from the late romantic tradition, and a sophisticated economy of means that exemplifies most of Webern's work. I have tried to approximate these characteristics to the best of my abilities.

Form

This slow movement is made up of three sections and is entirely pallindromic, i.e. halfway through the movement, the material is played backwards. Sections A and C are mirror images of each other, along with the two halves of Section B.

Section A uses reductive phrase lengths along with rhythmic and chordal mirroring.

Section B uses material from Section B in the first movement.

Section C is a mirror image of Section A

Section A

Rhythm

The two ideas I have used to create the majority of the structure in this section are rhythmic reduction and mirrored phrases. The basic building blocks of the phrases begin as rhythmic motifs that are six 8th notes in length and are reduced systematically to become a single 8th note long. These motifs are placed back to back with their own mirror images to create double length motifs. A two-beat rest is present at the end of each double length motif after which the mirror image of that motif is played. The two-beat rest is an important structural element to the pacing of the movement. The mirrored phrases create an unusual but interesting form of exposition.

The image shows a musical score for Section A, Rhythm. It is written in 4/4 time and features a piano (*pp*) dynamic. The score is divided into two systems. The first system shows a rhythmic motif in the right hand (treble clef) and its mirror image in the left hand (bass clef). The second system shows a more complex rhythmic motif in the right hand and its mirror image in the left hand. Two callout boxes are present: 'Mirror image rhythms' points to the first system, and 'Mirror image pitches and rhythms' points to the second system.

The rhythmic definition of the first motif is taken from Theme 3 in the first movement. Here it undergoes a rhythmic augmentation to become six 8th notes long rather than six 16th notes. The lengths are reduced by removing either an 8th note or an 8th note rest. It is important that the rests have a beat value as I wanted a feeling of movement and compression that would not have been possible had there been no rests to remove.

To contribute to the feeling of forward motion I thickened the chordal texture as the

section proceeded. From bars 1-9 each hand has either one or two notes. From bars 10 the beat 2 of bar 13 each hand has notes. From the beat 3 of bar 13 to the end of bar 14 each hand has three notes.

Pitch

I chose to explore an expanded pitch territory to that used in the first movement by using the original 12-tone pitch set and the inversion in four separate positions. If we disregard the mirrored phrases a different pitch set is found with each usage of 12 notes. The order of pitch sets being O (Original) , I (Inversion), O + minor 3rd, I + minor 3rd, O + flat 5th, I + flat 5th, O + major 6th, I + major 6th. It can be noted that the transpositions are moving up in minor 3rd intervals.

Section B

Rhythm

The rhythm is taken directly from Section B in Movement 1 but is played here in half time. Where we had a bar of 4/4 with a bar of 3/8 in Movement 1, we now have two bars of 4/4 with a bar of 3/4. The right hand material now uses 8th and quarter notes rather than 16th and 8th notes while the left hand uses dotted half and dotted quarter notes rather than dotted quarter and dotted 8th notes.

Pitch

The melody in the right hand is the inversion of the melody found in Section B of the first movement. In this instance it undergoes large octave displacement, being divided over seven octaves of the piano.

Note octave displacement in this excerpt:

A musical score excerpt for piano, starting at measure 24. The right hand (treble clef) plays a melodic line with eighth notes and quarter notes, featuring a slur over measures 24-25 and another slur over measures 26-27. The left hand (bass clef) plays a series of four-note chords. A dashed line labeled '8^{va}' spans across the top of the right hand's notes, and another dashed line labeled '8^{va}' spans across the bottom of the left hand's notes, indicating an octave displacement between the two parts.

The left hand plays 4-note chords that use variants of the 12 note row. The variants used here are the twelve notes from the RI (Retrograde Inversion), I, R (Retrograde), O and RI. These rows are used once each to create sets of three 4-note chords per row.

From the middle of this section, bar 24, the material is played backwards.

Section C

The directional reversal that occurs in Section B continues through section C, making it an exact mirror image of Section A. The process of chordal thickening that occurred in Section A now happens in reverse decreasing the force of the music. This coincides with a quietening of dynamics and creates a feeling of calm before the energetic activity of Movement 3 gets underway.

Movement 3

This third and final movement is a lively scherzo in 12/8. The dance-like rhythms and energy present within this movement concludes the work on a high note. In this movement the right hand plays in an almost improvised manner over a solid ground-bass in the left hand. I attempted to emulate a well improvised solo with the presence of pockets of structure (due to the repetition of ideas), rhythmic and thematic variation,

tension and release, the use of space (to allow the material to breathe), pacing and an overall build towards a climax in the coda. I also have incorporated rhythmic cadence ideas borrowed from Indian Classical music.

Form

Section A: Repeated ground-bass in the left hand and solo-like material in the right.

Section B: Recapitulation of material from Movement 1.

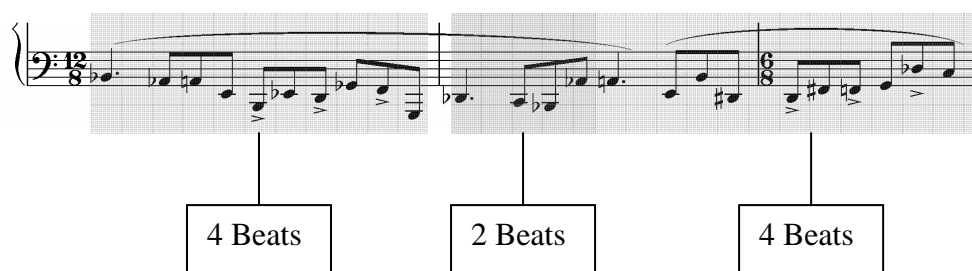
Section C: Repeated ground-bass in the left hand and solo-like material in the right.

Section D: Coda using polyrhythms and melody lines in rhythmic unison.

Section A

Left Hand

This movement begins with the aforementioned ground-bass in the left hand which provides a solid reference point for the cross-rhythmic activity of the right hand. Due to its construction being limited to only two rhythmic motifs, this bass provides a structural formulation. It repeats every ten beats which is divided into groups of 4, 2 and 4.



With regard to the pitches this bass line is constructed using a retrograde version of the original twelve-tone row.

1	2	3	4	5	6	7	8	9	10	11	12
B ^b	A ^b	A	E	B	E ^b	D	F [#]	F	G	D ^b	C

This retrograde row is played twice through to fit the ten-beat rhythm of the bass line.

To add variety to this bass-line I have incorporated rhythmic devices from Indian Classical music known as *moras*. *Moras* serve the function of a cadence and are typically eight beats long, with an internal phrase length structure of 3, 3 and 2. The third beat of each grouping of three is often a quarter-note (dotted quarter in 12/8) which acts as both a rhythmic anchor and an internal cadence point. *Moras* generally resolve to the downbeat of the next cycle or bar as can be seen in the excerpt below.

The image shows a musical staff in bass clef with a 12/8 time signature. The melody is a retrograde row of 12 notes. The notes are: G2 (quarter), F2 (quarter), E2 (quarter), D2 (quarter), C2 (quarter), B1 (quarter), A1 (quarter), G1 (quarter), F1 (quarter), E1 (quarter), D1 (quarter), C1 (quarter). The notes are grouped into four sections: 1-3 beats (G2-F2-E2), 4-6 beats (D2-C2-B1), 7-9 beats (A1-G1-F1), and 10-12 beats (E1-D1-C1). The first three groups are each labeled '3 Beats' in a box below. The final group is labeled 'Resolution' in a box below. The notes are written with stems pointing down, and there are accents (>) above the notes in the first three groups. The final note (C1) is a quarter note, while the others are eighth notes.

For the *mora* type patterns, the retrograde of the original 12-tone row undergoes different treatment each time. In this instance the concept of shifting back along the row to an earlier starting point is utilised. Later *moras* follow the same basic principle but use variations in the rhythm and pitch.

I chose to adopt a slightly less restrictive approach to the use of the row at a few certain points within this movement to fit my aesthetic judgement.

The concept of rhythmic reduction is a major structuring principle of Indian Classical music and is utilised here with regards to the form of this section. The reduction of appearances of the original ground-bass along with the rhythmic variations can be seen in the table below.

Bars 1-12	Ground-bass played 4 times
13-14	8-beat <i>mora</i>
15-23	Ground-bass played 3 times
24-25	8-beat <i>mora</i> variation
26-31	Ground-bass played 2 times
32-33	8-beat <i>mora</i> variation
34-36	Ground-bass played once
37-39	10-beat motif using groupings of 5
40	Resolution

Right Hand

The right hand in this section makes extensive use of various polyrhythmic relationships, cross-rhythms created by uneven groupings and another rhythmic cadence technique borrowed from Indian Classical music called the *tihai*. This is similar in structure to the *mora* but is generally more complex. A *tihai* is basically a phrase that is repeated three times and resolves to the downbeat of the new cycle or bar. Generally it is built from grouping of 5s, 7s, 9s, 11s or 13s or other ‘odd’ phrase lengths which maximise the potential for rhythmic interest and complexity. Often these three phrases are short and comprise the same length played three times e.g. 5, 5, 5. A common variation of this theme is that of adding a smaller unit in between these lengths e.g. 5, 2, 5, 2, 5. This structure still creates strong points of cadence but allows for more variation and creativity with regards to their design. This concept is varied further still by taking a unit or two from the first number and adding it to the last number e.g. 4, 2, 5, 2, 6 or 3, 2, 5, 2, 7. This again has a strong cadential feeling but there is now an added sense of internal development due to the systematic expansion of specific elements.

I have adapted these concepts somewhat to fit my own tastes particularly with regard to resolution points. In Indian classical music resolution generally only occurs on the first downbeat of the new cycle or bar but I have allowed resolution to occur anywhere within the ten-beat pattern, albeit to a downbeat, to allow for a more organic texture.

With regard to pitch, the right hand material is constructed using the inversion and the retrograde inversion of the original 12-tone row placed back to back to create a 24-tone row.

Inversion	C	B	F	G	F#	B ^b	A	D ^b	A ^b	E ^b	E	D
Retrograde Inversion	D	E	E ^b	A ^b	D ^b	A	B ^b	F#	G	F	B	C

Dyads used earlier in this movement provide punctuation within the internal structures of the *tihais*. Three-note chords are also used for resolution points. The majority of this movement however uses just a single note texture.

I feel that a summary of the appearances of these aforementioned rhythmic techniques in the form of a table, along with looking at a few specific examples will be more beneficial than an overly exhaustive analysis:

Bars 5-7	8 th note triplets (8 th notes in 12/8) grouped in 8s
8-10	8 th note triplets grouped in 7s
10-13	8 th note triplets grouped in 4s
13-15	8 th note triplets grouped in 5s
15-16	4 over 3 polyrhythm for contrast (16 th notes in 12/8)
18-19	8 th note triplets grouped in 9s
20-22	8 th note triplets grouped in 11s
22-23	8 th note triplets grouped in 10s
23-24	5 over 3 polyrhythm for contrast (quintuplets in 12/8)
24	8 th note triplets grouped in 2s
25	16 th note triplets for contrast
25-26	8 th note triplets grouped in 2s + resolution to beat 2 of bar 26
27	4-beat <i>tihai</i> using 16 th note triplets grouped in 6, 3, 6, 3, 6
28	Resolution of <i>tihai</i>
29-30	5-beat <i>tihai</i> using 16 th note triplets grouped in 8, 3, 8, 3, 8
31	Resolution of <i>tihai</i>
32-33	6-beat <i>tihai</i> using 16 th note triplets grouped in 8, 3, 10, 3, 12
34-36	Resolution of <i>tihai</i> + reoccurrence of 8 th note triplets in 8s as is found in bars 5-7
37-39	10-beat <i>tihai</i> using 8 th note triplets grouped in 8, 3, 8, 3, 8
40	Resolution of <i>tihai</i> to a chordal idea that is found in conjunction with the 'scotch snap' rhythm from Movement 1, here appearing in rhythmic augmentation.

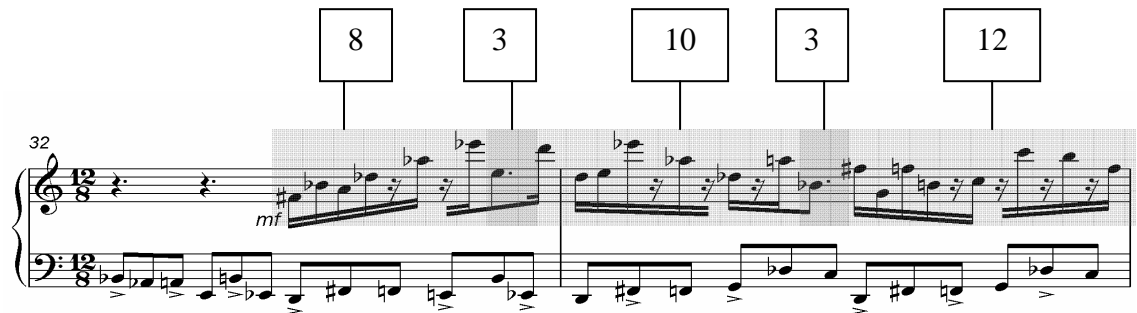
Examples of right hand material in Section A:

Triplets grouped in 4s:



Musical notation showing two staves (treble and bass clef) with a 4/8 time signature. The right hand features four groups of triplets, each consisting of three eighth notes. The first group is in the first measure, the second in the second, the third in the third, and the fourth in the fourth. The bass line consists of quarter notes and eighth notes.

Tihai grouping 16th triplets in 8, 3, 10, 3, 12:



Musical notation showing two staves (treble and bass clef) in 12/8 time. The right hand features a *Tihai* grouping of 16th triplets, starting at measure 32. The grouping is divided into five sections of 8, 3, 10, 3, and 12 triplets, indicated by boxes above the staff. The left hand features a steady eighth-note accompaniment. The dynamic marking *mf* is present.

Section B

This section contains a recapitulation of Section C from the first movement 1. This exact restatement occurs from bars 41 to 47.

From bars 47 to 51 a rhythmic reduction technique is used again, taking the last phrase from bar 47 as the basis. The phrase begins the same way in each consecutive bar but is systematically reduced to shorter and shorter lengths.

Phrase reduction:

Bars 52 and 53 contain a rhythmic cadence using phrase groupings of 5 which is motivically complimentary to the preceding material:

Section C

This section sees the return of the ground-bass in the left hand along with the soloistic material of the right.

Left Hand

The basic ground-bass pattern here is identical that used previously in Section A. The *moras* used here are also ones found in Section A.

Bars 54-59	Ground-bass played 2 times
60-61	8-beat mora (as bars 24-25)
62-70	Ground-bass played 3 times
71-72	8-beat mora (as bars 13-14)
73-76	Ground-bass played 1 time

Right Hand

The right hand continues to play cross-rhythmic and polyrhythmic material in the style of an improvised solo in a similar fashion to Section C. With regard to pitch, the right hand picks up from where it left off in Section A, pitch 10 (F) of the retrograde inversion and continues through the 24 pitches as before.

Again a summary of the rhythmic activity will be beneficial:

Bars 54-55	8 th note triplets grouped in 7s
56-57	4-beat <i>tihai</i> using 16 th note triplets grouped in 6, 3, 6, 3, 6 + resolution to beat 4 of bar 57
58-59	16 th note triplets grouped in 5s
60-61	16 th note triplets grouped in 8s
61	16 th note triplets grouped in 5s
62	Resolution
63-64	<i>Tihai</i> using 16 th notes (4 over 3 polyrhythm) grouped in 5, 2, 5, 2, 5
65-67	Resolution + <i>Tihai</i> using 16 th notes grouped in 6, 3, 6, 3, 6
68	Reference to cross-rhythm in bar 5
69	16 th note triplets grouped in 4, 3, 3
70-71	16 th note triplets grouped in 2, 3, 3, 2 and then 3, 3, 2
72	16 th note triplets grouped in 7, 7, 5, 7
73	16 th note triplets grouped in 2, 5, 5, 5 + resolution to beat 4
74	<i>Tihai</i> that incorporates a 9 over 3 polyrhythm within a phrase grouped in 6, 3, 6, 3, 6

Example of Section C material:

Tihai using 16th notes grouped in 6, 3, 6, 3, 6 in the right hand:

65

mf

p

f

f

p

f

Section D

This section is the coda of the work and has a slow and steady build towards the climax. The ground-bass ceases at this point and now begins the use of slow and shifting polyrhythms created between the two hands.

Polyrhythms & a build in activity:

D

77

p

82

mf

p

mf

86

p

f

p

f

The following table shows the polyrhythmic relationships between the hands with the first number relating to the right hand and the second number to the left.

Bars 77-78	Both hands play 8 th note triplets grouped in 7s
79-80	5 over 7 polyrhythm
80	5 over 6 polyrhythm
81-82	4 over 6 polyrhythm
83-85	3 over 5 polyrhythm
85-86	3 over 4 polyrhythm
86-87	5 over 3 polyrhythm
87-88	5 over 3 polyrhythm (variation)

The left hand plays a pedal in D^b from bars 77 to 85 which serves to provide a tonal reference point for the right hand material. This pedal drops down a semitone to C in bar 86 which contributes to the rising tension of this passage.

In bar 77, the right hand continues from where it finished off in Section C with a B^b note, the 6th note of the row inversion. It plays moving single notes until bar 83 where dyads are introduced. The 24-note row is now treated in a different way by the use of repetition of certain notes between the chords. Each time a new chord is played it retains one of the pitches from the last chord gradually metamorphosing to consonance.

From the last beat of bar 88, the tension is increased further as the left hand plays dotted 8ths (2 over 3 polyrhythm) while the right hand plays a cross-rhythmic line that groups 16th triplets in 5. This right hand line is repeated while the left hand rhythm changes to quarter notes, implying a 3 over 2 polyrhythm, which creates a forward momentum and tension that contributes to the final climactic build.

Right hand line & changing bass rhythm:

The musical notation shows two measures, 89 and 90. Measure 89: The right hand (treble clef) plays a sequence of eighth notes: C4, D4, E4, F4, G4, A4, B4, C5. The left hand (bass clef) plays quarter notes: C3, C3, C3, C3. Measure 90: The right hand plays a sequence of eighth notes: C4, D4, E4, F4, G4, A4, B4, C5. The left hand plays quarter notes: C3, C3, C3, C3. The right hand line in measure 90 is a variation of the line in measure 89.

This line undergoes rhythmic displacement and transformation along with transposition to different positions.

Bars 91 to 96 form the main climax of this movement.

In bar 91 the left hand doubles up the right hand line in octave unison which adds a further sense of emergency to the music.

Octave Unison:



In bar 92 this phrase is transposed up a minor 3rd and in bar 93 up another minor 3rd.

During this bar the left hand plays the exact line but harmonised a ^b7th below.

In bar 94 this harmonised line undergoes rhythmic transformation as the note groupings begin to switch between 5s and 6s.

Notes grouped in 5s and 6s. Left hand harmonised a ^b7th below the right hand:



In bar 95 further rhythmic transformations take place along with the two lines returning briefly to octave unison.

In bar 96 the rhythm of the line undergoes further transformation as groupings of 4 form the texture. The last three pitches of the preceding phrase are sequenced. This intervallic shape of this motif is a major 3rd up followed by a minor 2nd down. This shape is transposed up a series of 4ths in the right hand and down a series of minor 3rds in the left hand. This contrary motion movement along with the dynamics rising to *ff* constitutes the final build of tension in this piece. This movement culminates on a set of dissonant

chords.

Notes grouped in 4s with contrary motion along with final dissonant chords:

96

3^{vo}

ff

FIN

Conclusion

I am happy with how this piece has turned out. I feel that it proceeds in a satisfactory way without any serious lulls in activity which can sometimes lead to a loss of interest. I feel that this piece also has a pleasing blend of traditional elements, which include repeated themes and contrasting sections, with modern elements, which include complex rhythms and twelve-tone dissonance. Having explored some of the possibilities of dodecaphonic music and how to apply them to the piano has opened a door to new compositional techniques for me, giving me a new tool to find new harmonies and melodic lines that were not available before.

This piece has so far had two performances by Izumi Kimura to capacity audiences and thankfully they have both turned out to be a success.

Sixteen Strings

Piece for string quartet

Instrumentation

2 Violins

Viola

Violincello

January - March 2009

Analysis of Sixteen Strings

Introduction

This piece is my second attempt at composing a string quartet for this post-graduate research programme. My first attempt was written at a stage when I was becoming interested in the ideas of form proposed and practised by John Cage and Morton Feldman and their associates. These American composers found alternatives to the directional and theme-and-variation based forms practised for centuries in Western Classical Music. They argued that sounds can exist by themselves and can be liberated from the manipulation and organisation of the composer.

With these liberal ideas of form in mind, I set about writing a string quartet where the material would be subtly connected and where the form could be much freer than usual. Though the concept was sound enough, what resulted was a piece that had very little continuity. I feel that this was due to the fact that the musical language which I used was still very much based on the directional ideas of Western music and when this was mixed with a looser approach to form what resulted was five or six seemingly unrelated sections. Each of these sections strived to move and grow towards something that it never quite reached. If I had used a more liberal musical language more akin to John Cage *et al* then I feel that this piece would have been more successful.

Another issue with my first attempt, which became clear after meeting with my supervisor, was that while I was trying to pursue a more modern and liberal approach to composition and form I neglected some of the more important formal elements that constitute a string quartet. These elements being: counterpoint, polyphony, conversational interplay between the voices and the foreground material being shared between the voices. After trying many times to remedy the piece I realised that the whole form was too abstract to force these more concrete elements into. Therefore I decided that the best route for me to take would be to write a completely new string

quartet.

This quartet follows a more traditional model. Within that framework, contemporary ideas are found with regard to phrase lengths, rhythms and harmony.

Form

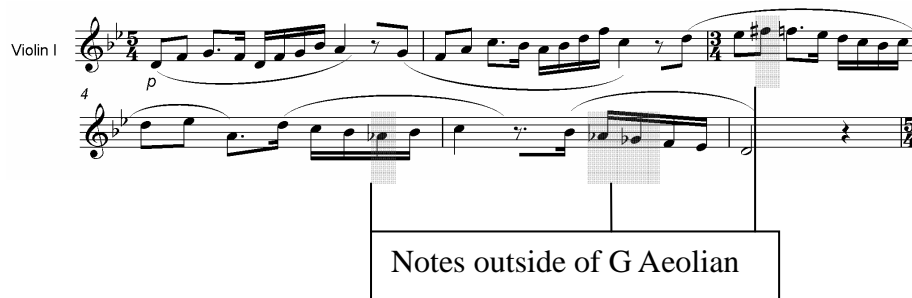
This piece consists of four sections. Each section is basically one long phrase that, while it continually develops, follows a lengthy contour and then finally resolves. The entire composition is based upon one rhythmic motif which is present throughout (see below).

Section A

The piece begins with a quiet G minor melody played in the 1st violin over sustained chords played in the other three instruments. The first three beats of this melody consists of the principal rhythmic motif of the composition which I will call Motif A:



This motif is sequenced and undergoes slight melodic transformation to create a six-bar melody. This melody stays mostly within the G Aeolian mode but occasionally slips outside of that to provide tension and interest:

Musical notation for a six-bar melody in Violin I. The notation is in G minor (one flat) and 3/4 time. The first four bars are in 3/4 time, and the last two bars are in 2/4 time. The melody starts with a piano (p) dynamic. The notes are: G4, A4, B-flat4, C5, D5, E5, F5, G5, A5, B5, C6, B5, A5, G5. A box labeled "Notes outside of G Aeolian" points to the notes B5 and C6 in the fifth bar, which are not part of the G Aeolian mode (G, A, B-flat, C, D, E, F).

It can be seen in the excerpt above that the phrase lengths contract as the melody

develops.

During this statement only two chords are sounded in the other strings; a G minor triad and an F#6. The F#6 chord in this context is heard as D7#5b9, the altered V of G, even though the note D is not present in the voicing.

In bars 7 -12 the same melody is sounded again in the 1st violin but now the chords have a faster rate of change and cover more harmonic ground.

Bar:	7	7	8	8	9
Chord:	Gmin	Dmin	F6	C/E	E ^b min/ B ^b
Mode/Scale:	G Aeolian	G Aeolian	G Aeolian	G Dorian	B ^b Aeolian
Function:	I	V	^b VII	IV/VI	IVmin/I

Bar:	9	10	10	11	11
Chord:	F#6	B ^b /F	Cmin/ G	D ^b /A ^b	F#maj# 5
Mode/ Scale:	B ^b Aeolian	B ^b Ion-ian	B ^b Ionian	G Locrian	D Altered
Function:	^b VI	I/V	II/VI	^b V/ ^b II	V of G

While these chords are not purely diatonic to G minor they do have strong tonal relationships with G minor and B^b, the relative major.

Rhythmic displacement and asymmetric phrasing is utilised within this six-bar melodic phrase. The accompanying chords here relate to the asymmetry; at times supporting or stating the rhythmic displacement and at other times playing a counter-rhythm in opposition to it.

7

Vln. I

Vln. II

Vla.

Vc.

Support

Support

Counter

Support

In bars 13-17 there is a variation of the melody played by the 1st violin which allows for modulation to other keys. The chords follow the same rhythmic pattern as bars 7 to 12 but they follow a different harmonic route to support the varied melody.

Bar:	13	13	14	14	15
Chord:	Gmin	D/F#	F#min	B/A	Bbmaj7
Mode/ Scale:	G Aeolian	G Harmonic Minor	F# Dorian	F# Dorian	G Aeolian
Function:	I	V/VII	I	IV	bIII

Bar:	15	16	16	17	17
Chord:	Bmin	C#/B	F#min /A	Dmin /A	F#dim
Mode/ Scale:	G Ionian or F# Dorian	F# Harm- onic Minor	F# Harm- onic Minor	G Aeolian	G Harm- onic Minor
Function:	III or IV (Pivot Chord)	V/IV	I/bIII	V/II	VII func- tioning as V

In this statement the tonal centre subtly shifts between G minor and F# minor. As can be seen in the table above, various minor scales are used to create the harmony. The harmonic variations are due to the differences in the 6th and 7th degrees of the scales i.e. the Aeolian mode has a flat 6th and a flat 7th while the harmonic minor scale has a flat 6th and a major 7th.

In bars 18-20 the 1st violin explores different terrain by sequencing Motif A for 3 bars. This sequencing produces a steadily rising melody which adds tension to the music. The tension here is also accentuated by the chordal activity from the 2nd violin, viola and cello. The rate of change within the chords increases along with the use of syncopation for every second chord within a bar.

The image shows a musical score for four instruments: Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), and Cello (Vc.). The score covers three bars, starting at bar 18. The key signature is one flat (B-flat). The Violin I part features a rising melodic line with eighth and sixteenth notes, including a syncopated rhythm. The Violin II, Viola, and Cello parts provide harmonic support with chords and moving lines. The Viola and Cello parts show a sequence of chords that change every second chord within each bar, with some syncopation.

The harmony here moves away from G minor for a longer period, taking advantage of the interval of a minor 3rds. The minor 3rds appear within the chord structures themselves being of minor and diminished qualities along with the root relationships moving from G to B^b to C#.

In bars 21-23 the first textural change occurs from the instrumental groupings due to the main melodic material now being played in the cello. Both violins and the viola play the supporting chords:

Bar 21 signals one of the peaks in the long contour of Section A. Here the cello sequences the same 3-beat rhythmic motif as found in bars 18-20 in a downward motion with a *decrescendo* thus easing the tension for a short period.

Bar:	21	21	22	22	23	23
Chord:	Fmin9	B ^b min6/9	Cmin11	F6	Gmin ^b 6	A ^b /D
Mode/ Scale:	F Aeol- ian	F Aeol- ian	C Dor- ian	C Dor- ian	G Aeol- ian	G Dimin- ished h/w
Function:	I	IV	I	IV	I	V

During this passage the chords are moving at a rate of two chords per bar; dotted quarters in 3/4 time. In bar 23 the chord A^b/D implies a perfect cadence to G but instead we hear a deceptive cadence to E^b in bar 24.

In bars 24-28 there is another textural change as the cello and the 1st violin hold sustained chords as the 2nd violin and viola enter in imitative counterpoint, separated by one beat. The material here uses Motif A and now follows more traditional diatonic movement:

Bar:	24	25	26	27	28
Chord:	E ^b	Edim	Fmin	D7/F#	B ^b 13/A ^b
Mode/ Scale:	B ^b Ionian	B ^b	B ^b Aeolian	B ^b	B ^b Mixolydian
Function:	IV	#IV	V	III7/#V	I/ ^b VII

The tension here builds again as the melody and chord movement creep upwards in pitch and *crescendo* from *mp* in bar 24 to *mf* in bar 29.

As part of the continual development and tension found in the long arc of this passage, in bars 29-31 another change of texture occurs. Now the viola and cello enter into imitative counterpoint while the violins play a cross-rhythmic *ostinato*.

The contrapuntal material here is again based on Motif A. In this instance it undergoes rhythmic variation, the comprising rhythmic elements being swapped around to create a new motif:

The musical score for bars 29-31 shows four staves: Violin I, Violin II, Viola, and Cello. The key signature has two flats (B^b), and the time signature is 3/4. The dynamic is marked *mf*. The violins play a rhythmic ostinato pattern. The viola and cello play imitative counterpoint based on Motif A.

The harmony at this point continues to centre on a B^b tonality:

Bar:	29	30	31
Chord:	E ^b min	B ^b min	F7 ^b 9
Mode/Scale:	B ^b Harmonic Minor	B ^b Harmonic Minor	B ^b Harmonic Minor
Function:	IV	I	V

In bars 32-33 Motif A is transformed again from a three-beat figure to a two and a half-beat figure. It is played twice in a bar of 5/4 and is stated in harmony by the violins. The

viola and cello also play in harmony but have a cross-rhythmic counter-line in contrary motion to the melody:

The image shows a musical score for measures 32-35. It consists of four staves: Violin I, Violin II, Viola/Cello, and Cello/Bass. The music is in 5/4 time and G minor. The first three staves (Violin I, Violin II, and Viola/Cello) have a forte (f) dynamic marking. The Cello/Bass staff has a forte (f) dynamic marking. The score shows a complex rhythmic pattern with many sixteenth notes and some accents.

The harmonic movement from bar 24 up to this point has been centred on a B^b tonality. When the theme is stated in G minor it comes as a surprise that feels both familiar and unfamiliar. This duality is something that I personally find very satisfying.

In bar 34 the same 5-beat theme is repeated with a slight variation. This variation allows for a subtle shift of key centre from G minor to D^b suspended (G^b major scale). The chords played in the viola and cello are grouped in lengths of five 16th notes which compliment the five-beat theme.

In bar 35 the melody is sequenced over the D^b suspended tonality and is played in parallel motion with three-part harmony from the violins and the viola while the cello plays a pedal on a D^b7 chord. Due to the sustained bass notes and unison rhythms in the other voices this bar gives stability to the subsequently active music.

From bars 36-38 all four instruments play chords in rhythmic unison. Again the tonality is in D^b but it shifts from D^b Mixolydian to D^b Aeolian and back to D^b Mixolydian before concluding on a D7^b5 chord which prepares the reintroduction of the opening theme in G.

The rhythmic activity in these bars is somewhat unexpected. In bar 36 the chords are

grouped in lengths of five 16th notes, which flow naturally from the preceding bars. In bar 37 the chords are grouped in lengths of six 16th notes, in the form of a quarter note plus an 8th note. In bar 38 the chords are grouped in lengths of eight 16th notes, in the form of half notes. The overall effect is one of gradually reducing speed. It sounds as if a *ritard* has been notated but in fact the music remains in strict tempo.

This unison chordal passage signals the end of the long phrase that constitutes Section A:

The image shows a musical score for four instruments: Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), and Cello (Vc.). The score is for measures 36, 37, and 38. The key signature is two flats (B-flat and E-flat), and the time signature is 3/4. Measure 36 starts with a 3/4 time signature and a key signature of two flats. The music consists of a unison chordal passage where each instrument plays a sequence of notes that change every two beats. In measure 37, the time signature changes to 4/4, and the notes are grouped in lengths of six 16th notes. In measure 38, the time signature changes to 4/4, and the notes are grouped in lengths of eight 16th notes. The overall effect is one of gradually reducing speed.

Section B

This section uses basically the same material as Section A, but allows for new material along with variations on the original material. This section follows a similar arc in terms of direction and build.

From bars 39-44 the original six-bar theme is presented now in the cello at the dynamic *p* while the 3-note chordal accompaniment pattern is played in the violins and viola at the dynamic *pp*. The quiet dynamic here allows for another extended build up of activity while the instrumental change of texture provides a contrast to the original statement.

From bars 45-49 the theme is repeated in the cello and is now echoed in the viola by means of exact imitative counterpoint separated by one beat. The violins continue to provide sustained accompaniment following the same harmonic pattern as bars 39 to 44:

45

Vln. I

Vln. II

Vla.

Vc.

p

p

p

From bars 50-52 we hear new material that is based on a rhythmic unit contained within Motif A. This one beat rhythmic unit forms a pattern which creates a driving momentum and is reminiscent of Afro-Cuban music:

50

Vln. I

Vln. II

Vla.

Vc.

mp

mp

mp

mp

This theme is played in three-part parallel harmony by the violins and viola while the cello plays a counter-rhythmic pedal. Here the harmony is intended to convey a brooding quality, stating variations of V to I cadences in minor keys as it shifts from G minor⁶ to B^b minor⁶ to D^b minor⁶. All the while the melodic based chords create a rising and falling contour which, while being played with a *crescendo*, adds to the tension.

As a dynamic peak at bar 53 is reached, the three-note chords in the violins and viola shift to quartal harmony (perhaps recalling Debussy) which conveys a warmer colour.

The time signature changes from 5/4 in the previous bars to 5/8 also. Again rhythmic and melodic material here is closely related to Motif A. The rhythmic unit within Theme A which comprises of four 16th notes forms the basis of the new material. This three-bar phrase begins at the dynamic *f*, but as the melodic contour descends we find a *decrescendo* which allows for the dynamic level to relax briefly before building again.

Bars 56-60 are almost identical in form and purpose to bars 24-28. Previously the cello played sustained notes but here it contributes to the contrapuntal texture by adding an active counter-rhythmic line that follows smoothly from bar 55, while mimicking the material from the 2nd violin and viola:

In bars 61-63 the material is almost identical to bars 29-31. At this point, the cross-rhythmic *ostinato* played in the violins has been altered to a more active rhythm to suit the developmental arc of Section B. Here the contrapuntal texture is fuller and more active, setting up a tension that is released in the next phrase.

In bars 64-66 we have an exact reappearance of the theme from bars 32-34.

From bars 67-70 the theme beginning at bar 35 is stated over a Db suspended tonality after which it undergoes melodic and rhythmic variation and extension. The rhythmic variations at this point give the music a subtle feeling of shifting pulse and metre. In bar 67 the melody notes are placed in groups of 2 ½ beats length while over the next three bars, these rhythmic groups are varied. Due to the fairly strict melodic sequencing at this point, which provides a solid backdrop that allows the rhythms to vary, these shifting rhythmic groups feel quite natural. The three-part harmony through this phrase explores different modal scales. With the cello providing the Db tonal anchor, the harmonic/melodic lines are free to change their relationship to that note. The material is firstly based on a Db Mixolydian mode and then changes to a Db Aeolian mode and then returns to Db Mixolydian.

In bars 71-75 the closing bars of Section 1 (bars 36-38) are mirrored. Modal interchange is used again at this point to allow for a variety of tonal colours to be heard. This phrase ends with a decrease of rhythmic activity in conjunction with a *decrescendo* which signals the end of Section B.

Section C

The first half of this section uses new material which provides a contrast to the previous sections. A new melody is played at dynamic *p* in the high register by the unaccompanied 1st violin. This melody uses an intervallic inversion of Motif A. The intervallic pattern of Motif A is: up a minor 3rd, up a tone, down a tone, down a minor 3rd, up a minor 3rd and up a tone while here the intervals are inverted. This inverted motif has strong tonal implications due to its construction; the high to low notes being a 4th apart present themselves as being the root and 5th of a key centre. This motif appears at the beginning of almost every bar in this passage and each time it appears it is played a semi-tone lower than the previous time. The overall effect is one of subtly shifting key centres which are clearly discernable especially when supported by the other instruments.

The rhythm of the new melody is very close in nature to Motif A. During the course of this new melody, the phrases undergo rhythmic extensions and variations. The overall structure is basically a three bar phrase repeated three times, each time with variations. The time signatures reveal the rhythmic ideas being used.

Bars 76-78: Phrase 1: 3/4 to 7/8 to 3/4

Bars 79-81: Phrase 2: 3/4 to 9/8 to 3/4

Bars 82-84: Phrase 3: 3/4 to 5/4 to 3/4

As one can see, the first and third bars of each phrase are in 3/4 time while the second bar changes from simple to compound time and back again. This model allows for flexibility whilst maintaining continuity.

In bar 78 the main melody is joined by a counter-melody played in the 2nd violin. The pitches of the counter-melody are complimentary to the implied tonal centres of the main melody while the rhythmic activity provides a contrast. For the majority of this section, the counter-rhythm or polyrhythm used is that of 4 over 3, or dotted 8th notes with displacement. Mostly the rhythms here provide a contrast but at times they are more complimentary and conversational:

This nine-bar melody and counter-melody run from bar 76 to 85 in the form of a duo for the two violins.

In bars 85-86 the 2nd violin takes up the nine-bar melody, an octave lower, while the 1st

violin now plays sustained notes in keeping with the implied tonal centres. In bars 87-89 the viola begins the counter-melody an octave lower. Along with the addition of the third instrument to the texture, the dynamic changes from *p* to *mp*.

From bar 90 to 93 the cello is added which doubles the viola for 1 bar before doubling the main melody with in the viola. Bar 91 shows the 1st violin doubling up the counter-line, while the dynamic builds to *mf*. These two doubled melodies continue until bar 94.

In bars 94-96 we return to familiar material; this section being almost identical to bars 50-52. At this point the 2nd violin plays a counter-rhythm which fills in the spaces left by the original rhythmic configuration.

The image shows a musical score for four instruments: Vln. I, Vln. II, Vla., and Vc. The score is for bars 95 and 96. The key signature has two flats (B-flat and E-flat), and the time signature is 3/4. The Vln. I staff has a treble clef and contains a melodic line with eighth and sixteenth notes. The Vln. II staff has a treble clef and contains a counter-melody with eighth and sixteenth notes. The Vla. staff has an alto clef and contains a melodic line with eighth and sixteenth notes. The Vc. staff has a bass clef and contains a bass line with eighth and sixteenth notes. The score is marked with a '95' at the beginning of the first staff.

During this work the rate of musical change remains fairly constant i.e. changes in melody or musical character occur roughly every three to five bars. On occasion a melodic or rhythmic idea is extended in length and effectually breaks away from this consistent rate of change. This provides contrast along with allowing more organic growth to take place within the stricter confines of the overall scheme.

During bars 97-105 we see a pattern that has been extended and explored in this way.

Bars 97-99 has the same material as in bars 53-55; a melodic and rhythmic motif is played in three-part harmony by the violins and viola with the cello providing a strong bass support along with the use of cross-rhythms.

In bars 100-105 this rhythmic and melodic motif is sequenced to new positions but retains its intervallic shape. The basic motif appears throughout this passage but undergoes various rhythmic transformations, the result being unity alongside unpredictability.

Rhythmic variety:

The image shows a musical score for four instruments: Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), and Violoncello (Vc.). The score begins at measure 99. Each staff has a dynamic marking: *mp* for Violin I and II, *mf* for Viola, and *p* for Violoncello. The music features complex rhythmic patterns, including groups of 16th notes and dotted 8th notes, with some notes displaced. The time signature changes from 3/8 to 6/8 and back to 3/8.

The dynamic contrast here provides more expressiveness. Here the main dynamic pattern is one of a sudden quietness that *crescendos* quickly only to drop again suddenly moments later.

In bars 106-107 we hear the most adventurous sounds within the piece. These sounds explore suddenly shifting key centres which allows for a stark contrast to the relatively conservative harmony up to this point.

A three-note motif derived from the preceding material is sequenced to create a melodic contour that climbs in bar 106 and falls in the bar 107. This motif is played in three-part harmony which keeps intact the intervallic relationships found in the preceding bars.

The rhythmic activity here also adds considerable tension with the use of unusual phrase groupings. The accentuation uses a similar technique to that used in the counter-melody from bars 78-93; that of 16th notes grouped in 3s or dotted 8th notes and then undergoing displacement.

The closing passage found in bars 108-110 is reminiscent of the cadential pattern used at the end of Sections A and B and signals the end of this section.

Section D

This last section functions as a coda and mixes old material with new. From bars 111-116 the 1st violin plays a motif that is close in character to Motif A. This motif is loosely

sequenced every three beats to create an upward contour. The 2nd violin plays this exact line in imitative counterpoint separated by 1 beat. Other new material here is provided by the viola and cello and forms a strong cross-rhythmic pattern played in harmony and in rhythmic unison.

111 D

The musical score shows four staves: Violin I, Violin II, Viola, and Cello. The key signature has two flats (B-flat and E-flat) and the time signature is 3/4. The music consists of eighth notes grouped in threes, creating a rhythmic pattern of nine eighth notes per bar. Dynamics include a forte (f) marking in the third measure of each part.

The rhythmic pattern here uses 8th notes grouped in nines. This pattern is repeated four times and comes back to the start of the pattern after exactly three bars of 3/4 (nine beats).

The harmony stated here moves in ascending minor 3rds starting from G. The ebb and flow of the rhythms, along with the brooding harmony, mixed with two quick *crescendi*, means that this passage is one of the most active and syncopated in the piece.

In bars 117-118 the melody returns to the territory first stated in bars 32-33. The violins play a minor pentatonic melody in the key of B in two-part harmony while the viola and cello play a descending line in two-part harmony which suggests the B Phrygian mode. The viola and cello line uses rhythmic groupings of seven which compliments the previous groupings of nine.

In bar 119 the melody in the violins is now played in F[#] minor pentatonic while the ascending viola and cello lines play in F[#] Phrygian. Here we also see a variation in the time signature to 4/4. This serves temporarily to disturb the rhythmic pattern before returning to 7/8 in bar 120:

Musical score for measures 117-123. The score is for Violin I, Violin II, Viola, and Cello. It features complex rhythmic patterns with dynamic markings of forte (f) and mezzo-forte (mf). The key signature has two flats and the time signature is 7/8.

In bar 120 the melody is repeated in the violins and the viola and cello line is descends as opposed to ascending.

From bar 121 there is a reprise of the material first found in bars 32-33 here with a new rhythm in the viola and cello. This rhythm is a continuation of the rhythmic grouping presented at the start of this section. It now uses groups of five rather than seven or nine. The addition of two 16th notes in bar 122, found at the start of the bar in the viola and cello line, contributes to the rhythmic propulsion. The viola and cello use groupings of three in bar 123 which again adds to the rhythmic propulsion.

In the closing bars of this piece we see a short motif taken from the preceding bars which is now repeated in groups of five 16th notes. This phrase, played in the violins, uses basically the same pitches which are found at the end of the preceding phrase. The viola and cello now repeatedly state the chords G minor 6 to A^b which allows for the rhythmic activity to wind down.

Musical score for measures 124-128. The score is for Violin I, Violin II, Viola, and Cello. It shows a final phrase with dynamic markings of forte (f) and a 'FIN' marking at the end. The key signature has two flats and the time signature is 7/8.

The final phrase, found in bars 126-128, is stated in four-part harmony and stays within the tonal centre of G. The dotted 8th and 16th notes here give the impression of a shift in tempo. The final chord is a plaintive G 6/9 chord with no 3rd which concludes the piece with a sound that is somewhat brighter than the mostly minor material present

throughout the piece.

Conclusion

Writing a string quartet was quite a challenge for me having never formally studied Classical music and only having a cursory knowledge of the instruments involved. A failed attempt at writing in this format really motivated me to get underneath the skin of the genre. An in-depth study of selected string quartets by Beethoven, Haydn, Debussy, Ravel and Bartók revealed a huge amount to me. Compositionally I played it fairly safe with this work and made sure it did all of the things as string quartet should do!

It was during the writing of this piece that my supervisor, Eric Sweeney, presented me with a very useful analogy. The analogy was that of the work being likened to a play. The musical themes are the individual characters within the play and the main interest is created by their development and how they interact with one another. This powerful frame of reference has already enhanced my compositional approach along with improving my aural comprehension when listening to multi-layered music.

A History Lesson

Choral piece with piano accompaniment

Instrumentation

Voices:
Soprano
Alto
Tenor
Bass
(One voice per part)

Piano

May - September 2009

Analysis of A History Lesson

Introduction

This choral piece is based on the text of the poem 'A History Lesson' by the Czech poet Miroslav Holub (translated by George Theiner).

I have chosen this poem to work with for two main reasons. Firstly, it appeals to my aesthetics in the way it deals directly with a serious subject, that of war, while allowing for a dry sense of humour to come through. Secondly, due to the strong imagery and narrative qualities of the text, it immediately offers many opportunities for musical creation.

When setting this text to music I had two main goals:

- 1) To capture the drama of the text in terms of individual words and lines but also to capture the overall contour of the piece.
- 2) To create a piece of music that seemed apt in the context of choral music while at the same time challenging myself, the performers and the listener.

Text

A History Lesson

*Kings
like golden gleams
made with a mirror on the wall.*

*A non-alcoholic pope,
knights without arms,
arms without knights.*

*The dead like so many strained noodles,
a pound of those fallen in battle,
two ounces of those who were executed,*

*several heads
like so many potatoes
shaken into a cap -*

*Geniuses conceived
by the mating of dates
are soaked up by the ceiling into infinity*

*to the sound of tinny thunder,
the rumble of bellies,
shouts of hurrah,*

*empires rise and fall
at a wave of the pointer,
the blood is blotted out-*

*And only one small boy,
who was not paying the least attention,
will ask
between two victorious wars:*

And did it hurt in those days too?

Note:

After setting roughly the first half of the poem to music, my supervisor and I were concerned that there may be performance difficulties due to the chromaticism in the parts and the resulting lack of easily discernable tonal centres. I sent the unfinished work to a friend who is a choral singer. She was enthusiastic about performing the piece with her group, and after consulting about the work with her colleagues, my fears were allayed! She assured me that the chromaticism in the parts would pose no problem. She was, however, concerned about the tempo changes. She wondered if a conductor would be necessary or if the tempo changes could take place during the piano interludes, which I myself would be playing. I decided that the latter would logistically make the most sense and with any luck I could give the exact tempo that was required for the next section. Any discrepancies appearing in the tempo could be blamed on no-one but me!

Stanza 1

Kings

like golden gleams

made with a mirror on the wall.

On first reading, this opening stanza seems like straight forward decorative imagery describing ceremony and social elevation. After reading through the full poem however another meaning is hinted at – the criticism of pomp, vanity and authority. The poet suggests that kings, like golden gleams on a wall, are ephemeral things that are constantly changing and dying and are perhaps, ultimately, of no real use.

I attempted to capture the ceremonial implications of the text here. I felt that disregarding the cynical undertones for now and allowing for the real character of the piece to be revealed in the end of the second stanza would be the best course of action. I chose what I believe to be warm colours: major chords with added 6ths and 7ths, suspended chords and Lydian chords. I also attempted to convey a sense of regality in the melody, using pitches that, to me, conjure up images of the celebration of a king. To maximise the richness I minimised the amount of doubled notes in the chords.

The musical score is for the first stanza of the poem 'Kings'. It is written for four voices: Soprano, Alto, Tenor, and Bass. The music is in 3/4 time and begins with a mezzo-piano (*mp*) dynamic. The lyrics are: 'Kings like golden gleams'. The score is divided into four measures. The first measure contains the lyrics 'Kings' and 'like'. The second measure contains 'gol - den'. The third measure contains 'den'. The fourth measure contains 'gleams'. Below the bass staff, five chord diagrams are provided, corresponding to the harmonic structure of the piece: F6, Fmaj7sus, F7sus, Fsus add3, and F6#11.

Stanza 2

*A non-alcoholic pope,
knights without arms,
arms without knights*

Like the previous stanza, the characters mentioned here are ones normally associated with civil respect and authority but again there is a sense of criticism. The term ‘non-alcoholic pope’ suggests a break from the standard – you can’t have a non-alcoholic pope without having one or more alcoholic popes previously. In this stanza we get our first taste of the blunt imagery which inhabits this poem and helps to make it so effective. By means of very simple and clever word play the line ‘knights without arms’ which suggests warriors who have laid down their weapons perhaps in times of peace, becomes ‘arms without knights’ which suggests dismembered limbs lying cold on a battlefield, no longer attached to their owners.

For the musical setting, I delayed the cynicism until the last line. I wanted to allow for a sense of decadence and pomp to come through before the full weight of criticism undermined it.

When setting ‘non-alcoholic pope’ I felt ascending melodies alongside ascending major tonalities would give the sense of religious celebration that would normally be associated with a pope.

Ascending melodies and tonalities:

9

S. non al- co - ho-lic pope

A. non al- co ho- lic pope

T. non al - - co ho-lic pope

B. non al - - co ho-lic pope

mf

The word ‘knights’ is set using the chords B dominant 13, A major 13 and E major 7 at the dynamic *f*. This V, IV, I progression in the key on E major at high volume allows for a celebratory and respectful tone along with a sense of power and force that would be associated with warriors. This phrase winds down in pitch and volume so that when the word ‘arms’ is sung there is a sense of tranquillity and rest.

I felt a mirror image in pitch contour and dynamics would suit the symmetry of the text at this point. Through the lines ‘arms without knights’ the tension rises and culminates in a dissonant vocal chord on the word ‘knights’. This is the real turning point in the text, where the illusion of grandeur is shattered. I tried to capture this stark realisation with an unstable chord:

21

S. knights

A. knights

T. knights

B. knights

f

The root C is supported by the 9th, D, which again is supported by the 6th, A. The A^b above the A provides the real dissonance in the chord forming an enharmonic major 7th interval. This dissonant interval is also positioned in an unstable relationship with the C and D pairing.

Piano Interlude 1

Up to this point the piano has not been heard, which was a compositional choice that I liked. Here it provides a musical and textural contrast to the preceding material. The top line of the piano plays a line that pre-emptively finds a melody later in the work while the bittersweet chord movement echoes the cold realisation in the text. The tension builds and climaxes in bar 27 after which it is released with a descending cadenza that takes advantage of the major 7th interval that is found in the chord in bar 21. The sense of release is aided by a repeated E^b7 chord in the left hand which provides a perfect cadence to A^b in the following passage.

The musical score for Piano Interlude 1 consists of two staves. The upper staff is in treble clef and contains a melodic line with various intervals, including a major 7th interval. The lower staff is in bass clef and contains a repeated E^b7 chord. The score is labeled 'PNO.' and includes a 3/4 time signature.

Stanza 3

*The dead like so many strained noodles,
a pound of those fallen in battle,
two ounces of those who were executed,*

The stirring and dark imagery of this stanza compares dead bodies with food. This juxtaposition of something so normal like ‘noodles’ with something so horrific as a mass of corpses is extremely effective and creates bold images in the mind’s eye.

For the word ‘dead’ I decided that a stark sound would be appropriate. The soprano has a G, the tenor and bass have an A^b and a G respectively a semitone apart and an octave

below the soprano and the piano has the same A^b as the tenor.

35

S. dead

A.

T. *p* dead

B. *p* dead

The open and bleak sound of this chord to me recalls the semi-tone clashes found in some of Morton Feldman's vocal music.

For 'strained noodles' the use of solid half notes seemed to fit rhythmically to support the heavy food imagery. I use three block chords here, with contrary motion in the upper and lower parts, which build in tension and culminate on a stark and dissonant chord:

G^b, A^b, D^b and G.

38

S. strained noo - dles

A. strained noo - dles

T. strained noo - dles

B. strained noo - dles

For the line 'a pound of those fallen in battle' I returned to the accompanying chord found in bar 35 which to me has the right amount of bleakness and sorrow to support the sentiment of the text. For the soprano melody, sound-painting is used in the form of the word 'fallen' using a descent in pitch and the word 'battle' using a triadic figure that evokes a trumpet fanfare in battle. In the next phrase the word 'execution' gets a similar

triadic treatment, bringing the idea of ceremony to mind, the triads here being found in the harmony rather than the melody.

43
S. ba - ttle
B^b triad in first inversion

47
S. cu - ted
E triad in first inversion
A. cu - ted
E^b triad in first inversion
T. cu - ted
D^b triad in first inversion
B. cu - ted
All in open position

Stanza 4

*several heads
like so many potatoes
shaken into a cap -*

The food imagery continues in the same vein in this stanza by likening human heads to potatoes. I feel that the image here is more graphic and extreme than in the preceding passage; the line ‘shaken into a cap’ conjures up images of bodiless heads in motion rather than lying idle. Likening heads to potatoes conveys a real disrespect for the dead – treating them like one would a heavy lump of vegetable.

The musical texture here remains in block harmony, the heavy movement chosen specifically to support the imagery.

‘Potatoes’ is treated similarly to the words ‘strained noodles’ in the preceding stanza; block chordal movement in half notes culminating in a stark and dissonant sound. For these three chords I have used a harmonic technique, common to Jazz music, known as tritone substitution. These chords basically follow a distorted version of a II, V, I

progression. Tritone substitution transforms this progression to a II, \flat II, I. . Again contrary motion is found in the upper and lower parts.

51

S. po - ta - toes

A. po - ta - toes

T. po - ta - toes

B. po - ta - toes

Tritone Substitution

Piano Interlude 2

The basic shape of this interlude follows the first piano interlude. The top line pre-emptively a melody found in the next stanza while being supported by bittersweet chords which increase in dissonance and climax in bar 61 echoing the material for the setting of the word 'executed' in bars 46-47.

From bars 62-66 the piano uses a non-strict imitative counterpoint which pre-emptively the texture of the next section.

62

p

sfz

sfz

PNO.

Stanza 5

*Geniuses conceived
by the mating of dates
are soaked up by the ceiling into infinity*

The imagery used in this stanza is light and abstract, contrasting with the heavy imagery of the preceding stanza. Another critical tone is struck when describing ‘geniuses’ who would normally be lauded as masterminds or saviours. The description that they are ‘conceived by the mating of dates’ suggests that their importance is due to complete chance circumstances rather than anything deserved and that any merit bestowed upon them by their admirers is misplaced. The words ‘conceived’ and ‘mating’ call forth images of lowly creatures procreating who, given the chance, might prove to be geniuses also. The line ‘soaked up by the ceiling to infinity’ is an abstract image but to me represents these geniuses becoming immortalised in historic literature and school books.

In keeping with the lighter, more abstract tone here, and also contrasting to the preceding heavy texture, I used counterpoint in the upper two voices in a faster tempo at this point. The melodies follow a loose harmonic plan which, while visiting different key centres, allows for the consonance and brightness to come through. This texture seemed appropriate to describe the ethereal element of the text as well as the celebratory associations with the word ‘geniuses’.

70 *mp*

S. Ge - - - ni - - -

A. Ge - - - ni - - -

For the line ‘conceived by the mating of dates’ I decided on a bold and stark texture; rhythmic unison along with semi-tone and tone clashes. This serves to question the celebratory nature of the preceding music.

The light counterpoint texture returns for the line ‘are soaked up by the ceiling’ and the climax is reached for the words ‘into infinity’. For the climax here the melodies follow two separate whole-tone scales while a piano chord catches the syncopated phrase ending. The piano chord supports the whole-tone idea in the right hand while giving the

pitches to the oncoming lower voices in the left hand.

Stanza 6

*to the sound of tinny thunder,
the rumble of bellies,
shouts of hurrah,*

There is strong aural imagery in this stanza: ‘tinny’, ‘thunder’, ‘rumble’ and ‘shouts of hurrah’. These words are very evocative and give a sense of the physical realities of the battlefield. The loud volume implied here builds towards the next stanza which contains the most potent sentiment of the piece.

Due to the heavier and less abstract imagery at this point, I used a less active contrapuntal texture in the lower voices at a slower tempo. The melodic material echoes the material from stanza 5.

I used an open piano voicing built from a 9th interval in each hand a tone apart in the upper register to support the word ‘tinny’. For the sake of musical continuity and to avoid too obvious a use of sound painting, I chose a similarly high piano texture for the first syllable of the word ‘thunder’. Later on in this phrase, the piano uses two dyads in the lower register; a b5th and a perfect 5th to give a sense of the overall depth and volume of the stanza.

For the line ‘the rumble of bellies’ the lower voices play in rhythmic unison and are harmonised using dissonances found close to the octave.

‘Shouts of hurrah’ again is in rhythmic unison between the lower voices but the parts now move in contrary motion with the bass part descending as the upper part ascends. The climax is strengthened by an 8-note dissonant piano chord in the upper register at the dynamic *f*.

T. shouts of hur - rah

B. shouts of hur - rah

PNO.

Dissonant Piano Chord:
A^b7/B^bdiminished7

Piano Interlude 3

This short piano interlude contrasts with the previous interludes in terms of length and does not interrupt the momentum of the text. The top line of the piano uses an E minor scale with chromatic alterations while the chords loosely outline altered dominant chords moving around the cycle of 5ths and finishing on an altered and extended B dom7 chord. This interlude prepares the singers for the next stanza in terms of key centre, tempo, and starting notes.

PNO.

mp

Stanza 7

empires rise and fall

*at a wave of the pointer,
the blood is blotted out-*

This stanza is the most sinister and potent of the piece. It conjures up images of army generals and leaders using maps and pointers to dictate the flow of armies and destruction through the land. There is a disconnection here between humanity and the business-like affairs of war. The sentiment here is that so much power is wielded by so few and that empires can be created or destroyed by such a trivial hand motion as ‘a wave of the pointer’. Here Holub’s juxtaposition of the trivial with the life-changing is extremely effective.

The line ‘the blood is blotted out’ suggests that the gritty realities of war are generally left out of history books. There is an implication of the blood being compared with the ink in which historical accounts are written which offers another graphic mental image. Musically this is the most sinister part of the work, in keeping with the text. The material is based on the opening stanza. Where the music in the first stanza uses mostly bright and ceremonial sounds, this section uses very dark and dissonant sounds to support the sinister imagery. I felt that a musical parody of the celebratory associations of kings and power was appropriate at this point. The piano plays just octaves in the low register here to allow for the full effect of the choir returning to four parts to be felt.

105 *f* *mp*

S. em - pires rise and fall

A. em - pires rise and fall

T. em - pires rise and fall

B. em - pires rise and fall

For ‘the blood is blotted out’ I used a very simple texture, in keeping with the stark and almost helpless sentiment of the text.

113

S. blood is blot - ted out

A.

T.

B.

PNO. *pp*

Stanza 8

*And only one small boy,
 who was not paying the least attention,
 will ask
 between two victorious wars:*

And did it hurt in those days too?

Part of Holub's skill as a poet lies in his ability to suddenly shift perspectives, viewing the same events from two completely different angles. The manner in which this occurs here is very effective as the focus changes from the most sinister part of the poem, the bloodthirsty war generals, to the most innocent part – the sheltered child. Here we see a potent disconnection between the realities of war and the blissfully ignorant child. The music here contrasts considerably with the preceding stanza. The soprano sings a light and lyrical melody which symbolises the innocence of the boy, which is supported by the long tones from the other three voices. The long tones form chords and the colours shift from warm and major to melancholy.

117

S. one small boy, who was not pay - ing the least

A. ah

T. ah

B. ah

The final line is repeated for effect here. I decided upon mostly major chordal sounds with counterpoint which indicate the blissful ignorance of the child. A minor tonality is heard briefly in the final passage which adds another question mark to the boy's sentiment. This returns quickly to major as if the boy's wonder is short lived, and that he can return to living in blissful ignorance. This piece ends on a sorrowful chord of A with an added 9th, implying a minor chord due to its VI chord relationship to the preceding material in C.

122

S. and did it hurt in those days too?

A. and did it hurt in those days too?

T. and did it hurt in those days too?

B. and did it hurt in those days too?

Conclusion

I found this to be a very stimulating and illuminating project. Singing is an important element of my life whether I am teaching music, practicing music, learning new music or enjoying my family life and I was delighted to be able to increase my understanding of it. I learned a great deal by investigating the music of Byrd, Tallis, Monteverdi, Machaut, Britten, Schnittke and James McMillan.

Working with Eric on putting appropriate rhythms to text I found to be very illuminating. The finding of natural stresses and noticing the push and pull inherent within sentences taught me a great deal. Also the idea that specific words and phrases suggest certain harmonies or melodic motion is a very worthwhile one. This whole process has given me a much deeper understanding of composing for voice along with a greater appreciation for well conceived vocal music from all genres. I was fortunate enough to have this piece rehearsed with an SATB group which gave me an insight into what is possible and what sounds good for this type of ensemble.

Looking for Random Elephants

Music for the Jazz Trio *White Rocket*

Instrumentation

Trumpet in B^b

Piano

Drum kit

October - November 2009

Analysis of Looking for Random Elephants

Introduction

The seeds of this piece were sewn in my mind when I was on tour in the U.S. with a jazz group in which I play and compose for called 'White Rocket'. We stayed with a friend in Georgia and he showed us a 12-sided die (singular of dice!) on to which he had painted the twelve chromatic notes of the western musical system. This instantly appealed to me as I knew the source of this die, with the unusual amount of sides. It belonged to an old role-playing game called 'Dungeons and Dragons', which I spent many hours playing as a child. Much of the game centred on the rolling of multi-sided dice with the results determining many factors pertinent to your character. Such dice rolling would determine outcomes like whether or not your arrow would pierce a goblin's armour or how many gold pieces he was carrying if your arrow happened to be successful. My friend used this die when he needed inspiration when composing or when he wanted to challenge himself while practising. I thought that this was a brilliant idea and my mind began racing with possibilities. I soon realised that the composer would still have a huge amount of decisions to make before something resembling a piece could exist, but with the use of creativity and the structuring of ideas some very interesting results could emerge.

The reason that I enjoyed the creation of the random tables I used within this piece, I can safely say, is due to my affinity with role-playing games that involve lots of dice rolling. This piece is written for the group 'White Rocket'.

Form

This work is divided into three distinct parts. Part 1 (Sections A to G) contains groove based patterns along with the repetition of certain material. Much of the material here is

randomly generated. Part 2 (Sections H to I) is a long and open section with little repetition. The material changes from a sparse and very random texture to a dense and less random one. Part 3 (Sections J to L) is a recapitulation of Part 1.

I view the layout of this work to be akin to an improvised performance of a jazz standard. During a jazz standard performance the melody is usually played first which is often the most familiar or pleasing part of the tune. Afterwards improvisation takes place which often leads to more and more abstraction away from the melody and chord structure of the piece. This is usually the part where the uninitiated listener will start to take great interest in the pictures on the wall rather than the music! After the improvisation, the melody returns and along with it comes familiarity and a release of tension. This piece functions in much the same way with the explorative material in the middle, book-ended by less abstract material.

Part 1

Section A

The trumpet here plays a melody which is seven and a half bars of 4/4 in length. This length was pre-determined as I wanted to take advantage of rhythmic gear shifting within the piece. What I mean by this is that if one has an amount of beats which is divisible by a few different numbers, you can create interesting rhythmic effects. The amount I chose was 60 units (120 with the retrograde added to it) which refers to the amount of 16th notes in this instance. 120 16th notes equals 30 beats or 7 ½ bars of 4/4. This idea of seeing one number as having many different possibilities is a concept that is frequently used in Indian classical music. I chose this number as it is divisible by many numbers; 2, 3, 4, 5, 6, 10, 12, 15, 20 and 30. I ended up taking advantage of the numbers 3, 4, and 5 to create rhythmic shifting in the drum part, which greatly adds to the interest of the music.

The rhythmic and melodic material was created through a mostly random process.

For the rhythmic aspect of the trumpet melody, the 60 units were divided into 3s, 4s and 5s with the use of a six-sided die and a coin.

Roll die:	
1 or 2 =	3
3 or 4 =	4
5 or 6 =	5

I decided to use the coin in the following manner to allow for some repetition of structure.

Toss after each roll:	
Head =	New roll
Tails =	Use the last number again

Also I decided that any lengths of 4 units would be used as a one beat rest. This would provide for some lightness within the music while also allowing the trumpet player space to take breaths.

I ended up with the following results to which I added its retrograde:

Original: 5 3 3 3 5 4 5 3 4 4 3 4 3 5 3 3
Retrograde: 3 3 5 3 4 3 4 4 3 5 4 5 3 3 3 5

For the pitches of the trumpet melody I began by using a system borrowed from South Indian classical music known as the *Melakarta* system. This is a highly developed and methodical system of the organisation of scales. It basically sets out 72 different seven-note parent scales which are used for the performance of ragas. All of the scales have a tonic and a perfect 5th. The first 36 scales have a perfect 4th while the second 36 have a sharpened 4th. The 2nds and 6ths can be flat, natural or sharp while the 3rds and 7ths can be double flat, flat or natural. The 72 different scales are found by methodically changing one note at a time to find all of the combinations.

In preparation for the composition of this piece I tried out different combinations of dice

and coins to see what musical factors they might determine. When I tried out a coin mixed with a die rolled twice (2x6x6) I got the number 72 which led me to the *Melakarta* system.

My result for the trumpet melody was a scale with the following definition:

Root, b2, 3, 4, 5, 6, b7

To determine the key centre I used the following random pitch table which was used many times throughout the creation of this piece.

Roll Die & Toss Coin:	
Heads	Tails
1 = C	1 = F [#]
2 = D ^b	2 = G
3 = D	3 = A ^b
4 = E ^b	4 = A
5 = E	5 = B ^b
6 = F	6 = B

At this point I had ascertained the length of the section, a rhythmic pattern, a scale and a key centre (G^b) but I still had no music! After trying out many ideas for the creation of pitches for the trumpet melody I settled on this method:

Roll Die & Toss Coin:	
Heads	Tails
1 = Tonic	1 = 7ths
2 = 2 nd	2 = Repeat note
3 = 3 rd	3 = Repeat note
4 = 4 th	4 = Choose note by ear
5 = 5 th	5 = Use pre-established theme 1
6 = 6 th	6 = Use pre-established theme 2

With the use of repeated notes, notes chosen by ear and pre-established themes, I felt that this melody had a better chance of being ‘musical’ in the normal sense of the word.

Pre-established
theme 1:



Pre-established
theme 2:



I decided on the specific rhythmic definition myself along with phrase markings and dynamics. When connecting the rhythms with the pitches I decided that because the pre-established themes had a given rhythmic definition, they would take precedence when placed over the rhythmic pattern.

Here is the result:

Musical score for Trumpet (Tpt.) showing three staves of music. The first staff starts at measure 9, the second at measure 12, and the third at measure 14. The music is in 4/4 time and features complex rhythmic patterns.

For the opening passage the piano plays quiet three-note chords in a high register. I chose sustained chords that would contrast with the fast movement of the trumpet line. The 120 units were divided up randomly into lengths of 11, 12, and 13. For the pitches I focused on the three individual voices of the chords separately. Two of the voices were created using the random pitch generator table, while the third based its results on one of the others. For this I used a separate table which would first of all decide if the relationship between the two pitches would be close together or far apart and then it would decide how close or far apart.

Roll Die & Toss Coin:	
Heads	Tails
Close together	Far Apart
1 = Same note	1 = Sharp 4 th
2 = Semi tone	2 = Perfect 5 th
3 = Whole tone	3 = Sharp 5 th
4 = Minor 3 rd	4 = Major 6 th
5 = Major 3 rd	5 = Flat 7 th
6 = Perfect 4 th	6 = Major 7 th

For the second half of Section A these piano chords are heard an octave below. This octave displacement is indicative of the structural organisation found in Parts 1 and 3. These parts have an obvious sense of structure and development which is not present in Part 2.

The trumpet line remains unchanged during Part 1 while the accompaniment by the piano and drums undergoes constant transformation. This approach is influenced by a piece called ‘Nefertiti’ written by the great jazz saxophonist Wayne Shorter and recorded by the Miles Davis 1960’s quintet on an album of the same name. The unique element of ‘Nefertiti’ is that the melody repeats itself for the entire length of the tune while the interest is created by the changes in the accompanying texture provided by the rhythm section. This is the opposite to most performances of Jazz pieces where the variations of the melody provide the interest.

Section B

At this point the piano plays two new lines, the right hand taking advantage of dotted 8th notes and the left hand using sustained notes. At this point there are three separate melodies playing, one in the trumpet and two in the piano. These three lines all have their own material and there is no intentional connection between the parts. This is deliberate on my part and is a conscious effort to explore a concept that I encountered whilst watching a documentary on the American composer Elliott Carter. He stated that in much of his music he used the idea of individualism – that musical parts could exist alongside other musical parts without any obvious connections, each telling their own

narratives. He likened this concept to a modern day city where people exist side by side but have very little connection to another. This concept appeals to me very much and is explored within this piece.

In this part of the piece there are, however, two important ideas which connect the three lines of music. Firstly, all of the lines begin on the first beat of Section B and exist within the confines of 120 units or 7 ½ bars. Secondly, the rhythms used for each part were chosen to create a layered texture consisting of parts moving at different speeds. This can be seen by the excerpt below showing the different rhythmic values within each line:



The rhythm in the piano right hand line uses unit groupings of 2 and 3 and also has rests of 8 or 12 units in length to allow for space. The length of 120 units is used again here. When determining the layout of numbers sometimes the last one or two pitches were chosen to equal the exact number of 120 units.

Here is the table I used:

Roll Die:	
1 or 2 =	2 units
3 or 4 =	3 units
5 =	Repeat last result
6 =	8 or 12

If a 6 was rolled, a coin toss would decide between 8 or 12 units rest.

The pitches here were again created with the help of the *Melakarta* system. The scale structure this time was:

Root, b2, 3, 4, 5, b6, 7 in the key of C

Along with this scale I used the following table to determine the exact pitches:

Roll Die & Toss Coin:	
Heads	Tails
1 = Tonic	1 = 7 th
2 = 2 nd	2 = Repeat note
3 = 3 rd	3 = Repeat note
4 = 4 th	4 = Note by ear
5 = 5 th	5 = Semi tone away
6 = 6 th	6 = Whole tone away

If a 5 or 6 was rolled along with the coin toss resulting in ‘tails’, then the coin would be tossed again to determine whether the next pitch would be above or below the last pitch. I decided not to use any pre-established themes for this part as I felt there was enough structural repetition in the trumpet line and in the set lengths of sections.

The rhythm in the piano left hand part uses unit grouping of 9 and 11 which also account for rests.

Roll Die:	
1 or 2 =	9 units
3 or 4 =	11 units
5 or 6 =	Rest of 9 or 11 units

I chose these odd lengths to maximise the rhythmic interest.

The pitches in the left hand were chosen using the random pitch table. I felt that two lines chosen using the *Melakarta* system and one line chosen randomly would create an interesting contrast.

Section C

Up to this point we have heard only the trumpet and piano and due to the lack of a clear

pulse the music has felt quite ambiguous. With the addition of the drums here, the other material suddenly feels validated. The drums play a two bar groove. In parts it sounds unstable due to the displaced bass drum but the resolution every two bars of the bass drum onto beat 1 ensures a level of rhythmic comfort.



The piano left hand part changes here but because it continues to use rhythmic values of 9 and 11, there is a good sense of continuity. A new set of results is created through this table:

Roll Die:	
1 or 2 =	9 units
3 or 4 =	11 units
5 =	1 + 2 + 6 units
6 =	1 + 10 units

I developed the ideas here by defining some of the 9s as 1+2+6 and some 11s as 1+10, the shorter units supplying interesting ‘hiccups’ within the texture.

Again the pitches were chosen using the random pitch table. This may seem like the creation of too many ideas but because the trumpet line remains unchanged, many variations are perceivable alongside it.

Section D

Here is the first point in the work that I decided to deliberately connect the material played by two instruments together. Here the drum pattern follows the piano left hand. There is a feeling of heavy displacement here due to the accentuation of different parts of the beat. This displacement is particularly strong in the first three bars where four lengths of 11 units are accented. I wanted a build-up of tension here so I shifted the hi-hat pattern accordingly to the 2nd and 4th 16th notes where required. This effectively

creates skips or hiccups which destroy the steady pulse:

33 **D**



The trumpet and piano left hand remain unchanged from Section C.

Section E

Here the drums play a randomly-created drum beat alone. This randomness flows seamlessly from the heavy displacement of the last section. For the creation of this drum pattern I used the approximate relationships of bass drum to snare to hi-hat. In most rock based drum beats the hi-hat is the most active part, followed by bass drum, followed by snare. I chose the low and high limits of the ranges as follows:

- Hi-hats - From 1 to 4 units - chosen by two coin tosses
- Bass drum - From 3 to 8 units - chosen by die roll
- Snare drum - From 7 to 12 units - chosen by die roll

Again I fit this into the 120 units or 7 1/2 bars and the result looks like this:

41 **E**



Section F

Here we have all four parts playing for the first time; trumpet, piano right hand, piano left hand and drums. The trumpet having tacited in Section E returns to the same material while the piano right hand plays the same material from Section B played an octave higher. The piano left hand has new material but again uses lengths of 9 and 11 units for the sake of continuity.

Roll Die:	
1 or 2 =	9
3 or 4 =	11
5 =	1 + 8
6 =	1 + 10

The left hand now plays two-note chords in which both pitches have been randomly generated.

The big change in the music that occurs here is due to the new drum pattern. As mentioned earlier I specifically picked a number for the section lengths which was divisible by a few different numbers. Here the number 3 is exploited as the drum pattern now uses dotted 8th and dotted 16th notes exclusively. This basically constitutes a change of the pulse or an instant rhythmic shift of gears. This shift casts a totally new light on the other material which, at this stage, is becoming familiar to the listener. The dotted 8th notes in the piano right hand part now sound like the pulse rather than a subdivision thereof and the 16th notes in the trumpet line now sound like 8th note triplets.

F

49

Tpt. *f*

Pno. *f*

Dr. *f*

Section G

Here the solo piano plays two independent parts which are both very rhythmically structured. The material here is based on the *tihai* concept of South Indian classical or ‘Carnatic’ music. A *tihai* is basically a complex rhythmic phrase that is repeated three times and resolves to the downbeat of a new cycle or beat length. *Tihais* often follow the form of A B A B A which is the structure that I use here. I used certain numbers that, when placed in A B A B A form, would add up to 120 units. For the right hand A=32 and B=12 where B equals a held note.

$A + B + A + B + A =$	120
$32 + 12 + 32 + 12 + 32 =$	120

I further subdivided each A into another A B A B A form where A=6 and B=7. I gave these subdivisions specific rhythmic definitions and alternated between single lines and dyads. For the generation of pitches I used the same *melakarta* scale as was used in Section B but I approached it slightly differently.

Heads	Tails
1 = Tonic	1 = 7 th
2 = 2 nd	2 = 1 step away
3 = 3 rd	3 = 1 step away
4 = 4 th	4 = 2 steps away
5 = 5 th	5 = 2 steps away
6 = 6 th	6 = Note by ear

In this passage each A of the larger A B A B A form is identical.

The musical score is for piano (Pno.) in 4/4 time. It shows a sequence of measures from 57 to 63. The score is divided into sections labeled A and B. Section A is highlighted in grey and consists of measures 57-58, 59-60, 61-62, and 63. Section B is highlighted in white and consists of measures 60-61 and 62-63. The notation includes treble clef, key signature of one flat, and various musical symbols like accents, slurs, and dynamic markings.

I composed a separate *tihai* for the left hand and again used the A B A B A form with A =26 and B=21. This again adds up to 120 units.

Here I placed my own internal structure on those lengths with A divided into 5, 5, 3, 3, 5, 5, and B divided into 7, 7, 7. Again there occurs an alternation between single lines and dyads. The pitches were generated using the random pitch table. Again I felt that the juxtaposition of tonal notes taken from the *melakarta* system with randomly generated notes would be an interesting one. The pitches in this A B A B A form do not repeat as they do in the right hand, which allows for a sense of development within the passage.

Pno.

p

A1

B1

A2

B2

A3

This piano passage acts as an extended fill which resolves to the first beat of Section H which signals the end of Part 1.

Part 2

The overall tendency within this part, bars 65 to 152, is to move from chaos towards structure. The un-tethered randomness is at its most prominent here. I deliberately loosened the reins considerably to see what would happen when I splashed paint onto the canvass so to speak. There are no intentional relationships between the four lines of music and only minor ones within each instruments own material for the earlier half of this part. Elliott Carter's idea of individualism is very important within this part of the work.

Section H

I used an adaptation of the *tihai* concept to produce the phrase lengths and the spaces in between. I used three different form types which were: A, ABA and ABABA and each of these would represent a phrase or collection of phrases. In between each of these phrases I placed a length of silence called C. At the start of this part, I wanted a lot of space so I allowed C to be a much greater value than the other phrase lengths. The roll of a die would determine what form type to use:

Roll Die:	
1 or 2 =	A
3 or 4 =	A B A
5 or 6 =	A B A B A

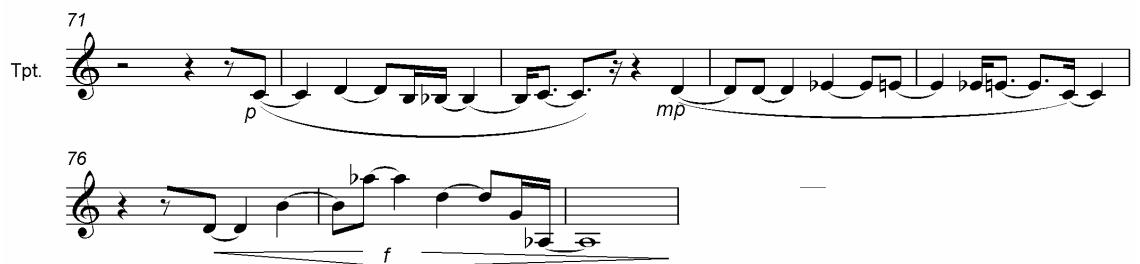
The material of As and Bs within a phrase would be similar if not identical. The lengths of the A and B within a specific phrase would be ascertained by rolling the die twice, making the unit range between 1 and 36. At this point I made the unit range of C between 1 and 216 units which was possible by rolling the die three times (6 x 6 x 6). The phrase lengths and spaces for each of the four parts were created in this manner. The result is a very loose and open texture where any interaction between the parts occurs by coincidence. Again, however, I did take control over the rhythmic definition within the phrasing. I gave different lengths of units to different parts to allow for a certain amount of continuity within each part and also to allow for a multi-layered rhythmic texture. I used larger numbers at the beginning and shortened them as the section progressed to increase the tension and activity.

For the creation of pitch material I used a table that has been mentioned already:

Roll Die & Toss Coin:	
Heads	Tails
Smooth	Jagged
1 = Same note	1 = Sharp 4 th
2 = Semi tone	2 = Perfect 5 th
3 = Whole tone	3 = Sharp 5 th
4 = Minor 3 rd	4 = Major 6 th
5 = Major 3 rd	5 = Flat 7 th
6 = Perfect 4 th	6 = Major 7 th

Creating using this table meant that there would be some continuity in the form of a melodic shape rather than just total randomness. I also allowed for the smooth or jagged melodic contour to last for pockets of time. To this end I rolled the die to determine how many smooth steps or jagged leaps would take place. This helped the material to sound more 'musical'. I used a coin to determine contour direction but I had to keep an eye on the limitations of the trumpet register and occasionally I had to intervene with the use of octave displacement.

Smooth versus jagged trumpet melody in A B A B A form:



Section I

At bar 103 there is a clear shifting of gears as the piano uses shorter rhythmic values. The rhythmic definition within each part becomes more active as the trumpet begins to use 4s and 2s, the piano right hand uses 6s and 2s, also 7s and 5s, and the piano left hand uses 3s and 1s. The drums do not play in this section as I felt there would be enough rhythmic excitement and activity within the other three parts. Also the return of the drums near the end is a key moment within the work which signals the return to structure. The possible length of C, of the silences, is reduced here to a maximum of 108. This is achieved through a split result die roll followed by two normal dice rolls.

Roll Die:	
1 or 2 =	1 – 36
3 or 4 =	37 – 72
5 or 6 =	73 – 108

Another developmental factor in this section is the appearance of dyads in the piano

parts.

From bar 135 we get the final gear shift occurring along with the appearance of more structural elements. From here only the forms ABA and ABABA are used, C is only between 1 and 36 units in length and similar A and B phrases are repeated exactly. Up to this point within an ABA or ABABA form, the rhythms from each A would be identical whereas the pitches would not. With this use of repetition there is a much stronger feeling of structure. The rhythmic definition here has also been altered accordingly to contribute to the rising tension.

From bars 148 to 152 we get a very strong feeling of structure and climactic build as the three parts all play their own individual *tihais* to complete the section. Each part has its own rhythmic and structural strength and when the three play simultaneously a very powerful and layered texture is formed. This layer is teeming with tension and there is a great sense of release when all of the lines resolve simultaneously, along with the re-entrance of the drums.

3 separate korvais each with ABABA structures:

148
Tpt. *mf*
Pno. *mf*

151
Tpt. *f* *ff*
Pno. *f* *ff*

Part 3

This final part is a return to or a recapitulation of the material in Part 1. The structured music here contrasts greatly with the looser set of boundaries found in Part 2.

Section J

The trumpet returns to the exact line which it played throughout Part 1, again in the same manner that a melody would be restated at the end of a performance of a Jazz standard. The piano right hand plays the same line that is found in Section B but here the texture is thickened to two-note chords and the line is down an octave. The second note of each chord was created using the random pitch table. The piano left hand plays the exact material as is found in Section E only now the texture is thinned from two-note chords to a single line. The big change that occurs here is again due to a new drum pattern. The divisibility of the number 120 is taken advantage of again and the new pattern is now based on lengths of 5. The effect again places a completely different light on the music. The 16th notes in the trumpet line are now heard as quintuplets in relation to the newly stated pulse.



Section K

In this section we hear some full piano chords for the only time in this work. These chords coincide with the groupings of 5 being stated in the drums while the trumpet continues to play the repeated melody.

I used a few different ideas for the creation of these piano chords. Firstly, I discerned

how many notes were to be played in each hand by the roll of a die. If a 6 resulted, I would continue with the process to see if the chords were physically possible to play! It is more than possible to play two notes with the same digit especially if the notes are adjacent white keys. Then I ascertained the register which each hand would play in using the following table:

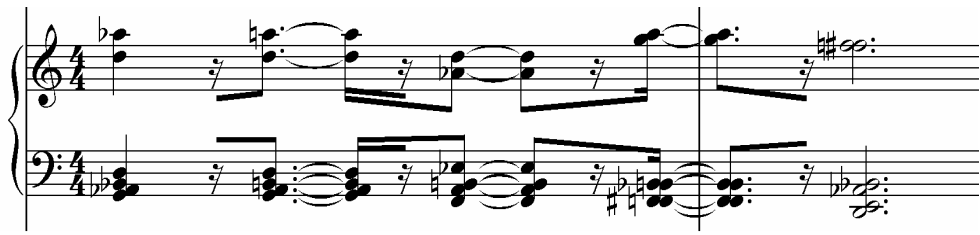
Roll Die:	
1 =	Low + low
2 =	Low + mid
3 =	Low + high
4 =	Mid + mid
5 =	Mid + high
6 =	High + high

I would find the first note of the chord by using the random pitch table and for the following pitches they each would have a random intervallic relationship to the last. This is the table I used to accomplish that:

Roll Die:	
1 =	Semi-tone
2 =	Whole-Tone
3 =	Minor 3
4 =	Major 3
5 =	Perfect 4 th
6 =	Sharp 4 th

A coin toss would decide whether each pitch was positioned above or below the last. If the same pitch resulted twice, the die would be rolled again.

I was very interested to find that a lot of the chords generated in this way sound very similar to the piano chords found in most pieces of the group I'm in called 'White Rocket'.



Section L

In this final section, the trumpet drops out leaving the piano and drums playing alone. There is a shift in rhythmic texture again as the groove moves from groups of 5s to earlier material. The piano plays the exact *tihais* that are found in Section G and the drums play a pattern very close in character to the pattern in Section D. The pattern here has been altered slightly to compliment the piano part. After 7½ bars the piano right hand plays similar material alone. The rhythmic groupings of the *tihai* are shifted around here while the pitch material stays the same. The piano left hand accents some rhythmically important points in the last four bars and the drums also join in to catch the last two piano chords to complete the work. The piece finishes in a very structured way which effectively validates the more adventurous and less obvious material found earlier on.

Conclusion

My compositional approach with regard to the group ‘White Rocket’ continues to develop. The general trend so far has been from complexity to more complexity, but this piece has proved to be the most challenging to date! As complex as it may be though, the other group members and I are certain that with enough individual practice and group rehearsal a satisfactory performance is more than possible.

In a way this is the most adventurous piece being presented in this portfolio as I relinquished control of large elements of its creation to a self-devised random system. During the creation of this piece many philosophical questions came into sharp focus. Does the composer give up their responsibility for the piece? Which is more important

the composition or the process? Can the process be abandoned temporarily to make the piece more enjoyable to listen to? Immersing myself in this world of randomised results has been a very liberating experience for me. It has helped to remove my attachments and expectations of what a piece of music should sound like. I also feel that, in a paradoxical way, this detached method of composition is already serving to make my decision-making much stronger. If the point of an M.A. is to challenge oneself, chart new territories and to encourage individual growth then the writing of this piece has surpassed all expectations along with giving me a deep insight into the creative process.

Becoming Four

Music for orchestra

Instrumentation

2 Flutes

2 Oboes

2 Clarinets in B^b

2 Bassoons

2 Horns in F

2 Trumpets in B^b

2 Trombones

Tuba

Percussion

(Timpani

Tenor drum

Triangle

Bongos

Congas

Wood block)

Piano

Strings

January - March 2010

Analysis of Becoming Four

Introduction

Since the beginning of this research masters programme, I knew that an orchestral piece would be the most challenging piece to compose for my portfolio. The sheer scale of the project was very daunting, one of the reasons being that orchestral music is generally seen as being the pinnacle of western classical music. I knew that a huge amount of information would be required to create a convincing piece of orchestral music.

However, after studying many orchestral scores, listening to many works, reading an excellent book on orchestration and conversing with my supervisor, the task was much more manageable. I spent a great deal of time with this piece and, even though at times I got frustrated, I enjoyed the process very much and learned a great deal.

This work is influenced by some of the masters of orchestral writing including: Bartók, Stravinsky, Wagner, and R. Strauss along with being influenced by less obvious sources including Nine Inch Nails (a heavy metal band), jazz, African polyrhythms and Indian classical music.

Overview

In this piece I used three distinct themes that I will refer to as Theme A, Theme B and Theme C

Theme A: Low register, earthy, paternal, rhythmically-grounded melody that is generally played on the strings.

Theme B: Middle to high register, flighty, restless, syncopated, youthful melodic figures generally played on the woodwind instruments.

Theme C: Mid register, warm, soothing chords generally stated in the brass.

Form

Section: A	B	C	D
Exposition of Theme A	Exposition of Theme B	Exposition of Theme C	Development of Theme A
Strings & Timpani	Bassoon, Clarinet, Piano & Strings	Brass	Strings, Woodwind, Brass
<i>P</i>	<i>mp to mf</i>	<i>p to mp</i>	<i>mp to f</i>

Section: E	F	G	H
Development of Theme B	Secondary development	Tertiary development	Development & recapitulation of Theme C
Woodwind, Trumpet & percussion – Strings & Brass – Full Orchestra	Woodwind – Brass	Woodwind & Brass	Strings & Brass – Woodwind
<i>mp to ff</i>	<i>mp</i>	<i>F</i>	<i>mf to pp</i>

Section A

Bars 1-19

The opening statement of this piece is the exposition of Theme A. This is a mostly modal theme based on G Aeolian and is in 3/4 time. It is a gently undulating step-wise theme that starts on a low G and gradually works its way up to a high A, a ninth above the starting pitch (disregarding the octave spread in the supporting strings).

The melody mostly stays within G Aeolian but, as it develops, it briefly explores notes

outside of that mode for the purpose of tension and contrast.

The image shows two staves of musical notation. The top staff is for Violas, in 3/4 time, starting with a piano (p) dynamic. The bottom staff is for Viola, starting at measure 10. The Viola part features polyrhythmic patterns with various time signatures (2/4, 3/4, 4/4) indicated by the bar lines. A box labeled "Notes outside of G Aeolian" points to specific notes in the Viola part, indicating notes that are not part of the G Aeolian mode.

The rhythmic units are steady and uncomplicated, consisting mostly of quarter notes and 8th notes, resulting in a grounded and pulse-based rhythm. I deliberately used a small number of set rhythmic patterns to create the phrases and allowed them to unfold in a way that produces continuity but not predictability. Asymmetric phrase lengths are employed here, as with many others places within this work, and the resulting phrase lengths for this section are as follows: 5, 3, 3, 4, and 4 bars.

The melody is played in unison by the strings, beginning with just violas and cellos and builds to include all the strings by the end of the statement. There is some added drama to the opening theme with the use of a quiet timpani roll on a low G note. This drone sharpens the contrast between the notes which are inside and the notes which are outside of the G Aeolian mode. The melody unfolds in such a way as to imply harmonic movement but due to the pedal tone and the melody being played in octave unison, the chords are not realised at this time.

Section B

Bars 20-45

This passage sees the following developments: polyrhythms, call and response, harmonic movement and an increase in melodic activity.

The first eight bars of this section act as an introduction to the exposition of Theme B. Bassoon 1 and both violins 1 and 2 play a syncopated melodic figure which is based on the polyrhythm of 4 over 3, or dotted 8th notes, and is motivically related to Theme B.

This polyrhythm is aurally obvious as the cellos and basses play steady quarter notes underneath the syncopated figure making the two parts interlock to create the polyrhythm. This ground-bass rhythm, known as ‘walking bass’, is a very important element of Jazz music of which I am heavily influenced. The function of the ‘walking bass’ in Jazz is to provide a solid rhythmic and harmonic framework through which improvised variations can be felt and comprehended.

This syncopated figure can be regarded as a ‘call’. The following bar sees the low strings play a ‘response’ with a similarly active rhythmic figure. This is a rhythmically symmetrical motif and later becomes a significant part of the musical development.

The image shows a musical score snippet for measures 20-21. The instruments listed are Bsn., Vln. I, Vln. II, Vla., Vc., and Cb. The key signature has two flats and the time signature is 3/4. A box labeled 'B' is above measure 20. A box labeled 'Call' 4 over 3 type figure related to Theme B points to the syncopated figure in the Bsn. and Vln. I parts. A box labeled 'Walking Bass' points to the steady quarter notes in the Vc. and Cb. parts. A box labeled 'Response' Symmetric rhythm points to the rhythmic figure in the Vc. and Cb. parts in measure 21.

After the rhythmically tense first two bars, we see some release in the form of just quarter- notes in the low strings and a half note in the violins and bassoon. The same rhythmic definition occurs in the next three bars but with the subtle variation on the addition of one more beat in the third bar, making it a bar of 4/4. After this we see a bar of 3/4 and a bar of 4/4 to end the first eight bars. Again, asymmetric phrasing is found, as the phrases are grouped into 3, 3 and 2 bars length.

In contrast to the static harmony of Section A, the harmony here moves through various chords which have an aural and functional relationship to G minor, though they are not strictly modal. The repeated bassoon and violin motif strongly outlines G as the key

centre and therefore the shifting harmonies are heard through this tonal context. This harmony can be explained in terms of a technique known as Modal Interchange.

Modal interchange is the act of borrowing a diatonic chord from one tonality or modality and using it in a different tonality or modality. An example of this would be the use of an Fmin7 chord within a C major tonality. The diatonic IV chord of C major (C Ionian) is Fmaj7 so the Fmin7 is being borrowed from C Aeolian. Composers generally adopt this approach when harmonic variety is needed.

Bar 20	21/22	23	24/25	26	27	27
G min	G/B	E ^b	A ^b maj 7	C/E	E ^b , Dmin, F6	F#maj7 #11
G Aeol- ian	G Mixo- lydian	G Aeolian	G Phrygian	G Dorian	G Aeolian	Altered V chord of G (D7#9)
Dark	Bright	Dark	Darker	Bright	Dark	Tension leading to release

Theme B is a slightly anomalous theme due to the fact that nearly every time it appears it is different. It is as if it exists somewhere in a state of perfection, inaccessible and intangible, possibly in a Platonic world of ideas and what we keep seeing are slightly imperfect manifestations of the original!

Having said that, the main characteristics can be described as follows: generally 16th note based, uses syncopation and rhythmic displacement, closely related to a 4 over 3 polyrhythm, often consists of small intervals i.e. 2nds and 3rds and often uses chromaticism to slip outside of the tonality.

Along with the introduction of Theme B we see an increase in rhythmic activity and a build towards the first small climax. During the passage beginning at bar 28 we have four separate rhythms that result in three-part polyrhythmic layers. The syncopated and sinuous chromatic Theme B acts as the ‘call’ and the violins and violas, whose material is similarly rhythmic, act as the ‘response’. The low strings playing *pizzicato*, and being joined at times by bassoon 1, continue the role of timekeeper with the use of solid quarter notes. The fourth layer of this passage consists of the same 3-beat symmetric rhythm that appeared in the preceding eight bars by the cellos and basses and is now played by the cellos and the piano adding a more percussive feel to the music.

The image shows a musical score for measures 28-31. The instruments are Clarinet 1 (Cl.), Bassoon (Bsn.), Piano (Pno.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), and Contrabass (Cb.). The score is annotated with four boxes:

- 'Call' Theme B material:** Points to the Clarinet 1 part in measures 28-30.
- Walking Bass:** Points to the Violoncello part in measures 28-31.
- 'Response' with similar rhythms:** Points to the Violin I, Violin II, and Viola parts in measures 30-31, which are marked *marcato*.
- Symmetric rhythm:** Points to the Violoncello part in measures 30-31.

Dynamics include *mf* (mezzo-forte), *p* (piano), and *marcato* (marked). The Violoncello part includes *mf* and *pizz* (pizzicato) markings.

As this 4-way dialogue unfolds there is a clear sense of build towards a climax. The phrase of the main 'call and response' contributors, clarinet 1 and the violins with violas, are divided into asymmetric bar lengths of 2, 1, 2, 2, 2 and 1. When the clarinet phrases are reduced to a 1 bar length, the violins and viola respond with a canon played the octave below which again marks a clear build towards a climax. The phrase lengths shorten from 3 beats to 2 beats to 1 ½ beats and culminates on a unison 4 over 3 polyrhythm for the point of climax. This polyrhythm is augmented by the use of dotted 16th notes, which is the same as the polyrhythm 8 over 3 or the polyrhythm 4 over 3 in double-time.

43 (8) 1

Fl. *f*

Cl. *f*

Bsn. *f*

Pno. *f*

Vln. I *f*

Vln. II *f*

Vla. *f*

Vc. *f*

Cb. *f*

8 over 3 polyrhythm

As the harmony in this section plots a similar line to that played in the first eight bars of this section I will describe only the new chord movement:

Bar 38	39	40	41	41	42	43	44
E min	Amin	G/B	B ^b	E ^b	A ^b	Dmin, Gmin, Cmin, Fmin	Climax G/B
G Ionian	G Ionian	G Mixo-lydian	G Dorian	G Aeolian	G Phryg-ian	G Phryg-ian	G Mixo-lydian
Dark	Bright	Brighter	Dark	Darker	Darker	Less dark	Brighter

These last three chords before the climax are the tritone substituted chords of a diatonic VI, II, V progression in G major. B^b is the substitute of E, E^b the substitute of A and A^b substitute of D. This is a common progression found in jazz music.

The motif used at the climax, with its rhythmic definition and use of cycle of 5ths, becomes an important element of the material in Section F.

Section C

Bars 46-58

This section contrasts considerably with Section B. It is played entirely on brass instruments which have been unheard up to this point. The rhythms are much more grounded and the texture consists of 3-part harmony played in rhythmic unison.

The tonal centre here is B, contrasting with the darker key of G minor. The majority of pitches from the top line of the chords fall within the B major scale, the D natural being the only exception. A cursory glance at the underlying harmony would not lead one to conclude a B tonality but listening to it would suggest otherwise. The technique of Modal Interchange can again be used to explain this progression.

Bars:46,51, 57	47,52,58	48,53	49,54	50,55	56
G maj7#11, A 69	B7, F#min11, B triad on last time	C#min11, C#min13	D13, Gmaj7	Csus4-3	Cmaj7, Fmaj7, B ^b maj7, A ^b maj7
B Aeolian	B Mixo- lydian	B Ionian	B Phrygian	B Locrian	B Ionian, Mixolydian, Dorian, Phrygian
Dark	Bright	Bright	Bright in this instance	Bright in this instance	Dark

Note:

The bright chord sounds during bars 49, 50, 54 and 55 is due to the usage of consonant voicings mixed with the cycle of 5ths which generally creates an uplifting progression. Normally B Phrygian and Locrian would be darker sounds due to the amount of flattened notes by comparison to the major scale.

In bar 56 there is a temporary shift away from the rhythm and harmony. The rhythm employed at this point is closely related to the polyrhythm 4 over 3 and later becomes an important building block of the material. Here it is shown in just the horns and trumpet 1.

Hn. 1
mp *p*
Subito

Hn. 2
mp *p*
Subito

Tpt. 1
mp *p*
Subito

Just before the close of this section there is a resolution to a B major triad, the tonal implication of the passage, which is realised in all parts.

The top line acts as the tonal anchor here due to the outlining of strong triadic B major chord tones landing on downbeats. All of these harmonic variations are heard in relation to the top line. It appears that I use modal interchange when composing by ear without even realising it. My musical tastes must be getting more chromatic!

Section D

Bars 59-99

This is the first development section. Here Theme A is worked out in 3-part counterpoint and is played by the full string section, the second violins with violas and the cellos with the basses doubling parts at the octave. The first violins play the principle theme while the lower strings play a rhythmic canon that follows a similar melodic contour. The

second violins and violas play a more supportive line which at times contributes more melodically to the texture. Due to the asymmetrical nature of the phrases, I allowed a little flexibility within the rhythms of the canon. This helps to create a more personal contrapuntal texture which can breathe when necessary.

The harmony is mildly reminiscent of Baroque music for the first portion of this passage. The chords that were only implied in Section A are now realised. The harmony is centred on G minor and the relative major B^b from bars 59 – 66. As shown in the excerpt above, this section includes the use of perfect cadences which are typical to the Baroque and Classical style.

As the string counterpoint begins to move away from G minor and B^b major tonalities, a familiar motif from Theme B, or a variation thereof, is played on the clarinet. This line provides another layer of rhythm and begins the process of textural thickening and rhythmic excitement that continues until the climax near the end of Section D.

The piano immediately follows this clarinet motif, again in call and response style, with the same rhythmically symmetric response that it used previously.

From bars 67 -69 the harmony centres on E^b major, the equivalent of G Aeolian in this context. In bar 71 we experience a momentary refamiliarisation of the G tonality due to the appearance of a D7/A chord, the V chord of G. The next bar sees a modulation to A^b major, which is diatonically related to G Phrygian, and this lasts for 3 bars.

Here the material from Section B is heard, again as a variation, and during this phrase the piano rhythm, which was previously the response part, is sounded, cutting short the possibility of call and response. This simultaneity again signals the thickening of texture.

Bar 74 sees a momentary resolution back to a G tonality, this time in the Lydian mode. At this point the low strings play dotted half notes in 3/4 time which provide a solid tonal and rhythmic anchor. The string counterpoint thins from three rhythmically active parts to two active parts thus allowing the new material some room to develop. In bar 75, material from Theme C enters to support the harmony and to thicken the texture. Over the next four bars there are six rhythmically different layers playing simultaneously: three themes based on Theme A, two syncopated rhythms from Theme B and a layer of chords based on Theme C, making a fairly dense texture at this point.

The image displays a musical score for measures 74 and 75. The score includes staves for Flute (Fl.), Clarinet in E-flat (Cl.), Horns 1 and 2 (Hn. 1, Hn. 2), Trombone 1 (Tbn. 1), Piano (Pno.), Violins I and II (Vln. I, Vln. II), Viola (Vla.), Violoncello (Vc.), and Contrabass (Cb.).

Annotations with arrows point to specific parts of the score:

- Theme B material:** Points to the Clarinet (Cl.) staff in measure 74.
- Theme C material:** Points to the Horn 1 (Hn. 1) and Horn 2 (Hn. 2) staves in measure 74.
- Theme A material in counterpoint:** Points to the Viola (Vla.) staff in measure 74.
- Symmetrical rhythm:** Points to the Piano (Pno.) staff in measure 75.

From bars 74 -78 the root movement of the chords ascends chromatically:

Bar: 74	75	76	77	78	79	80	81
Gmaj7 #11	A ^b dim7	D/A	B ^b maj7 #11	Bmaj7 #11	F#7Alt /A#	Bmaj7 #11	E ^b maj7 #5
Rising tension				Dark and rich			

Notice that from bar 78, the note B briefly becomes the new tonal centre before the phrase resolves to E^b major 7#5 in bar 81.

This harmony is akin to Romantic classical music insofar as bittersweet tension can be found within it. Also the dotted half notes emphasises a waltz feeling which temporarily adds a sentimental atmosphere to the proceedings.

In bar 82 there is a sudden pause within the texture which is filled by just three brass instruments. This stripped-down change of texture contributes to the drama.

When the texture re-enters, it has more force due to the brass theme being thickened to six parts. The rhythm from the brass theme is now reiterated by the low strings. From bars 83 -86, the Theme A melody continues in a Romantic style, sequencing the melody from bars 78 - 81 up a major 3rd to E^b. Contributing to the gathering momentum here we also see the high Theme B material becoming very active, taking advantage of 16ths and 16th triplets, which also pre-empts a significant theme later on.

The tension continues to rise as the harmony continues to travel through new territory, here moving through tense and ambiguous whole-tone terrain.

In bar 87 we witness another pause in the texture filled again by the brass, this time in six parts and using 4 and 8 over 3 polyrhythms, signalling an increase of tension.

The image shows a musical score for a brass and woodwind ensemble. The score is divided into two systems. The first system includes Flute 1 and 2, Clarinet 1 and 2, Horn 1 and 2, Trumpet 1 and 2, Trombone 1 and 2, and Tuba. The second system includes Piano, Violin 1 and 2, Viola, Violoncello, and Contrabass. Annotations with arrows point to specific parts: 'Theme B material' points to the flute and clarinet parts; 'Brass fill' points to the trumpet and trombone parts; 'Theme C material' points to the tuba part; and 'Cross-rhythm using groupings of 9' points to the string parts. The score is in a key with two flats and a 4/4 time signature.

Bars 88-91 contain a tense and sustained climax in which three separate rhythmic themes are layered to create a complex polyrhythm. The flutes and clarinets play high phrases consisting of 16th and 32nd notes which are grouped in lengths of 4 beats. The six-part brass theme is played in the low to mid register and the phrases use dotted 8th and dotted 16th notes in groups of 4 beats. This is staggered with the woodwind lines to increase the polyrhythmic effect. The strings along with the tuba play a cross-rhythm using grouping of 9s, with quarter notes implying downbeats becoming displaced by a 16th note each time.

In bar 91 the strings stop playing which thins the texture. In bar 92 the flutes and clarinets stop leaving only brass. There is an acute drop in tension here as a variation of Theme C is used to create a pleasant brass refrain in E^b major. This comes as a welcome contrast to the climax. The lull of activity and use of space here allows the music to rest

briefly before building up higher again to the main climax in Section E.

Section E

Bars 100-153

Call and response patterns along with the use of theme and variation are the crucial factors governing this section. The dialogue takes place mostly between solo woodwind instruments or trumpet 1 and percussion instruments. This concept is very close in nature to ‘4-bar breaks’ or ‘trades’ found within Jazz performances. This is where a soloist trades melodic and rhythmic ideas with a drummer, or other instrumentalists, whilst alternating four-bar phrases. It can often be the most exciting part of the performance, especially if the musicians are enjoying themselves and are trying to outdo one another!

This section develops in a way that echoes this idea by using increasingly adventurous soloing, stepping up the rhythmic gears and by using different intervallic ideas for contrast. These elements together, along with an increasing amount of instruments and continually increasing harmonic intensity, create a convincing sense of build towards a climax. The music here feels quite improvised, but it is done so in a deliberately structured way. The instances where the percussion plays underneath the melodic solos are similar to a good jazz performance, where spontaneous interjection is welcome.

The form of the section is:

Bars:	100-103	107-110	113-116	119-120	124-126	129-132	135-136
Call:	Clarinet	Oboe	Flute & Tenor Drum	Trumpet & Triangle	Oboe, Clarinet, Bassoon & Wood-blocks	Trumpet, Timpani & Piano	Flute, Oboe, Clarinet, Trumpet, Wood-blocks & Piano
Bars:	104-106	111-112	117-118	121-123	127-128	133-134	From 137 Start of Main Climax
Response:	Congas	Bongos	Bongos &	Bongos, Congas	Trombone,	Trombone,	Horns, Trumpet,

			Strings	& Strings	Tuba, Bongos, Congas & Strings	Tuba, Bongos, Congas & Strings	Trombone, Percussion, Piano, Strings
--	--	--	---------	--------------	--	---	---

I felt that taking advantage of the many different melodic and percussive orchestral instruments allowed for a great variety of colour which would contribute to the build towards the most active and exciting passage of the piece.

Rhythm

The strong influence that Indian music has on my work means that a lot of my writing uses rhythmic displacement, odd numbered groupings of phrases and uneven time signatures. I feel that it is important to mention that I always create the rhythmic phrase before I know what the best way is to frame it within the boundaries of the bar line. (Igor Stravinsky knew how to play the rhythms from the 'Rite of Spring' on the piano before he could write them down). Sometimes complex rhythms are best written within 4/4 to allow for familiarity on the part of the reader. Other times writing the specific time-signature changes gets the best results. It generally depends on the musical context and the abilities of the performers as to what works best.

The rhythmic phrasing of the material based on Theme B here is made up of smaller units of rhythms that can be repeated exactly, enlarged or reduced. The resulting sound is a mixture of continuity alongside unpredictability. As the passage develops the phrases explore different rhythmic and intervallic ideas, but always while retaining thematic unity.

This excerpt shows the first melodic line of Section E.

The rhythmic groupings are explained in terms of units 1 and 2. The units are similar to each other and unit 2 undergoes slight transformation.

Later melodic lines in Section B undergo changes of rhythmic gear shifting along with the exploration of other intervallic ideas. Notice the thematic continuity within each line:

Use of 8th note triplets and wide intervals,

Use of 16th note triplets and narrow pitch-range,

Use of displaced groupings of three 16th notes, wide pitch-range and non-diatonic notes.

Note: rhythm in bar 125 becomes the defining texture of Section G

The ‘response’ parts also have thematic unity and are based on the symmetric rhythm shown below. The original symmetric phrase consists of 8th and dotted 8th notes which allow for a good deal of syncopation along with the idea of alternating low and high notes. The ‘responses’ also follow this mode of construction while allowing for rhythmic, and harmonic variation.

The image shows a musical score for a string ensemble. It includes staves for Violin I, Violin II, Viola, Violoncello, and Contrabasso. The music is in G minor and 3/4 time. To the right, a section labeled 'Based on:' shows a three-note motif: G4, A4, B4.

Melody

We find a return to the G minor tonality although, during this section, its boundaries are challenged. All of the melodic variations of Theme B were written by ear at the piano and they are quite chromatic. Over the course of the lines a lot of chromatic ground is covered.

This graphic shows the first phrase of E and the relationship of the pitches to the key centre of G.

The image shows a musical score for Clarinet (Cl.) with a tempo marking of 100 and a quarter note equal to 90. The score is in G minor. Five boxes with arrows pointing to specific notes in the phrase provide the following interval relationships to the key center of G:

- Major & Minor 9th (A natural on 1st beat)
- Major & Minor 6th
- Perfect 4th, 5th and #4th
- Major & Minor 7th
- Major & Minor 3rd

The full chromatic compliment between middle C and the octave above are sounded. Due to the intervallic construction of the motifs this phrase still sounds very melodic. Later phrases have similar consonance/ dissonance levels due to a similar usage of chromaticism.

Many of the phrases in this section have been heavily influenced by jazz, especially the chromaticism of the great bebop musician Charlie Parker. Also an idea I use to end many of the phrases (shown below) was influenced by an improvised trumpet solo by Booker Little. Often his phrases finish with a motif using a perfect 5th interval which are the 5th and 9th of the tonal centre. The implied tonality here is G and this motif outlines D to A. The function is to provide a definite feeling of resolution to phrases which have used non-diatonic pitches.



Superimposition

This is the act of superimposing non-diatonic melodies or chords over a tonal or modal centre to create tension. Different relationships to the tonic produce various shadings of tension. My approach to superimposition is influenced by the great jazz saxophonist John Coltrane. This approach was central to Coltrane's improvisations over modal music in the early to mid 1960s.

This graphic shows the chords which are superimposed over the G tonality in a phrase from Section E.

Harmony

Bars: 117-119	121	122	122	123-125
Gmaj7/B	Bmin9	B ^b , F, A ^b , E ^b	Dmin	B/E ^b , E ^b maj9, B ^b 7/D, E ^b add9
I/III of G major	III of G major	Tonal interruption	V min of G	^b VI maj of G Aeolian
Bright	Bright	Dark	Dark	Bright

Bar: 127	127	128	128	129
Gmin/B	C69	Dmaj7#11 – functioning as B ^b 7 Alt	E ^b min maj, brief modulation	Emin7
Imin/III	IV of G major	V of E ^b	I of E ^b minor	VI of G major
Dark	Bright	Bright	Dark	Dark and tonally familiar

In bars 130 to 132 a low G is played in the timpani, piano and cello parts in a pattern of quarter notes. This acts as a counterbalance for the fast activity and chromatic exploration of the trumpet line along with allowing the previous harmonic movement to be given a point of reference.

Bar: 133	133	134	134	135
E min	A ^b /E ^b	D ^b aug	B aug	Dmin7
VI of G major	Whole tone root movement			V min of G
Dark	Dark	Darker	Darker	Bright by comparison

In bar 136 again we hear a low G played in the piano and cello as the flute, oboe, clarinet and trumpet play a fast melodic passage in canon. This low note again balances the higher melodic activity and allows for the reaffirmation of the tonal centre of G just before the climax starts properly. During the climax the harmony breaks away from this key centre for a more extended period of time.

The ‘response’ part grows larger each time and then eventually takes over the material from bar 138 thus creating the climax.

Climax

Bars 137-153

Rhythm

The element of rhythm is essential to the dense activity and excitement of this passage, the main climax of the work. The main rhythmic information is based upon the polyrhythm 4 over 5. The rhythms used here are the same as used earlier in bars 134-135.

For the opening passage of the climax, three rhythmic motifs are used:

Motif 1: grounded rhythm that gives two clear down beats.

Motif 2: A very active rhythm using groupings of 5. This again is an outgrowth of the symmetric motif found in Section B. The main rhythmic excitement of this section is due to the manipulation and accentuation of this principle rhythm.

Motif 3: A rhythmic ‘hiccup’ that disrupts the symmetry of the phrase repetition.

The image displays a musical score for the climax section (bars 137-153) across five staves: Vln. I, Vln. II, Vla., Vc., and Cb. The score is in 2/4 time and features a complex polyrhythmic structure. Three rhythmic motifs are identified with arrows pointing to specific measures: Motif 1 (grounded rhythm) is shown in measures 137-138; Motif 2 (active rhythm with groupings of 5) is shown in measures 139-140; and Motif 3 (rhythmic hiccup) is shown in measure 141. The score includes various rhythmic markings such as accents, slurs, and triplets.

For the opening of the climax section this rhythm appears in short lengths, resolving into downbeats and alternating with the grounded phrase shown above. Later this rhythm is allowed to cycle and to remain unresolved for greater lengths of time. Due to the

accentuation of every fifth 16th note, there is an implied change of pulse, which effectively is shifted to a slower tempo. The result is very tense and unsettling for the listener. Adding more rhythmic intrigue to this texture, we see the pattern containing little ‘hiccups’ where the pattern skips a motivic unit and jumps to an earlier part of the pattern. The skip happens on a part of the pattern that was used previously to resolve into the downbeats, but here they do not function as resolution. The function here is to create more tension. This is accomplished due to the main chordal and rhythmic accentuation no longer coinciding with the downbeats. The chords coincide with the high note, the third note, of the three-note motif grouped in fives. This means that each time the phrase starts on a downbeat, the main chord is played on the ‘and’ of the beat. This creates, in my opinion, a pleasing balance between rhythmic interest and bewilderment!

The percussion part also accents the high note of the violin and woodwind phrase. This very active part uses 32nd notes to enhance the displaced accentuation in the texture by the use of drum fills. This extra layer is an essential contributory factor for the tension of this climax.

The climax from bars 138 to 143 creates a building of tension which is already quite high by bar 144. In this bar we witness the introduction of a slow theme based on Theme A. The motif has undergone slight rhythmic and melodic transformation, along with appearing in rhythmic augmentation, which is half the original speed. After a phrase stated in half time, the phrase returns to the original tempo.

Before this, the pulse was being challenged by asymmetric phrase lengths and the accentuation of 5s. When the Theme A variation enters, it appears to be completely disconnected from the texture and an aural reassessment becomes necessary in the listener. Ultimately this entry provides a reference point on which all the 4 over 5 variations come into relief – the polyrhythm being realised.

143

Fl. 1

Fl. 2

Cl. 1

Cl. 2

Bsn. 1

Bsn. 2

Hn. 1

Hn. 2

Tpt. 1

Tpt. 2

Tbn. 1

Tbn. 2

Tba.

Perc.

Pno.

Vln. I

Vln. II

Vla.

Vc.

Cb.

Introduction of slow Theme A variation during main climax

The idea of simultaneity is the key element here. It is undoubtedly jarring but it is one of the most interesting passages of the work in my opinion.

Once this variation of Theme A has run its course, the texture thins out with the removal of the low strings, percussion, bassoons, and low brass. We are left with the violins, flutes and clarinets continuing the motif in groups of 5 with support from the

remaining brass. This winds down in dynamics and pitch and resolves to the first beat of the new section.

Harmony

During this section the harmony moves away from the G minor constraints. All chord movement was created at the piano so my ears had the final say over the result. I allowed some free movement to occur without any pre-conceived harmonic plan. However there is still a strong sense of structure due to the thematic unity. This is due to the continuity in the chord types involved along with the intervallic unity present in the high motif which is played by the woodwind and strings.

I am firm believer in allowing your ears to decide what is right or wrong, rather than relying on arbitrary theoretical rules which may be irrelevant to the situation. The idea that any sound can follow any sound is a great compositional tool, but the ears must be present during the process.

The material in the violins and woodwinds form the upper part of the harmony and they outline shifting minor keys with a motif that is constructed with a small and a large interval. These minor keys at times play the tonally implied extensions of the underlying chords and at other times create intentional disconnections with chords thus increasing the tension where desired.

Bar: 137	137	138	138
Gmin/D	B/D#	C aug	B ^b aug/B

Bar: 139	139	140	140	140
E ^b /B ^b	Emin/B	A aug	G aug	F aug

Bar: 141	141	142	142	142	142
D/F#	F#/A#	Emin7 ^b 6	E ^b min maj7	Cmin maj7	Amin6 ⁹

Bar: 143	143	143	144	144	144
A ^b maj7#11	Fmin9 ^b 6	Dmaj6 ⁹ #11	Csus ^b 9	Bsus ^b 9	C#7Alt

Bar: 145	145	145	145
E7Alt	C#7Alt	B7Alt	A ^b min7 ^b 6

In retrospect, I realise that this chord movement has been influenced by jazz. Jazz pieces from the 1960s, written especially by the likes of Wayne Shorter and Herbie Hancock, contain a modern approach to root movement. I subconsciously adopted a similar approach to the creation of these chords. The roots move in semi-tones, whole-tones, minor 3rds, major 3rd, and tritones. There is an avoidance of perfect 4ths or 5ths which are normally associated with traditional cadential patterns. The harmony changes from simple triadic structures to more complex configurations and, in doing so, contributes to the increasing tension.

From bars 146-153 the harmony begins to loop over the most rich and dissonant structures found in this passage, beginning again from the Abmaj7#11. This serves the dual function of perpetuating the high levels tension and at the same time signalling an end to activity in the form of repetition. I find this duality of severe dissonance mixed with the promise of release an interesting one.

Instrumentation

Bars 137-140	Bar 141	142	143-144	145-148	149
High motif: Violins 1&2	Adds Clarinet 1&2	Adds Flute 1&2		Adds Oboes 1&2	
Chords: Horns 1&2, Trumpet 1, Trombone 1, Piano, Violas Cellos, Basses & Percussion	Adds Tuba	Adds Trumpet 2	Theme A variation played by Bassoon 1&2, Trombone 1&2, & left hand of Piano in octaves	Full Orchestra	Removes Piano
<i>Crescendo</i>	-	-	-	-	-

Bar 151-152	153
Removes Oboes	Removes Clarinets
Removes Bassoons, Trombones, Tuba, Violas, Cellos, Bases & Percussion	Removes Trumpets
<i>Diminuendo</i> - - - - -	

The full orchestral texture coincides with the most dissonant chords as well as the highest dynamic level of the piece, *ff*, creating a definite apex of activity and tension. In bar 153 the remaining instruments being the flutes, horns, trombones and violins play a *diminuendo* and a *ritard* and gently resolve to a G tonality. This allows the music to rest briefly before the activity begins anew.

Section F

Bars 154-176

This section contrasts well with the previous section due to its paired-down instrumentation, lightness of character, and relative consonance. It functions as a release section even though complex rhythmic ideas are utilised. This section consists of light counterpoint in the woodwinds, beginning with a solo instrument and varying the textural thickness up to four woodwinds at a time.

The material in this section is related to Themes A, B and C. It recalls the opening motif of the piece, Theme A, which consists of two quarter notes with a different rhythmic value on beat 3 of a bar of 3/4, here developed to 16th and 32nd notes rather than 8th notes. It also resembles the contrapuntal character of Section D, the developmental section of Theme A. It recalls Theme B insofar as the material is presented in the woodwinds, the material itself is high and flighty in nature and an important rhythmic motif here can be found used in earlier Theme B material.

The polyrhythm 4 over 3 used here is also an important part of the rhythms used in Theme B along with an important motif found in the original Theme C.

The development of this 4 over 3 polyrhythm along with the motif using 16th and 32nd notes is the defining characteristic of this section.

Development of Motif A



These excerpts from Section F show this motif transforming and growing rhythmically. It can be noticed that the contour of the melody is also subject to transformation. This motif is constructed using grouping of three notes and each grouping moves either upwards or downwards. This motif outlines the underlying harmony mentioned in the following table.

This echoes the melodic contour of the first phrase of the work.

Development of Motif B



It is clear from these excerpts that Motif B also transforms and grows in terms of length, pitch-range and rhythmic speed. The rhythms here are influenced by Indian Classical music and are based on the following three polyrhythms: 4 over 3, 8 over 3 and 16 over 3.

The melodic lines are made up of fourth intervals which are diatonic to the changing harmony.

Early on in this section, these two significant motifs generally appear back to back in the

individual lines. Due to the staggered entrances of the lines these contrasting rhythms are mostly heard together as a very buoyant polyrhythm. This buoyancy is sometimes given pulse-based points of reference by the bassoons.

The way these two motifs connect to one another and grow feels very organic to me, even though it happens in a very structured way. I feel the asymmetry of phrasing greatly contributes to this organic feeling. A cursory glance at the changes in time signature will give a good indication of the asymmetric phrasing. From bars 169 to 176, the rhythms used in the counter rhythm played by the clarinets are reminiscent of the rhythmic material of Theme A. This again provides a point of reference for the flighty rhythms.

In bar 177, as the themes become more pronounced and cover a wider pitch range, the brass section enters using very similar material to Section C. Both horns, trombone 1 and the tuba play rhythms that use groups of 3 quarter notes while clarinet theme plays a motif in 5/4. The addition of the brass here adds a lot of warmth to the texture.

The image shows a musical score for measures 174, 175, and 176. The score is divided into three sections by callout boxes on the left:

- Theme B variation:** Points to the Flute 1 (Fl. 1) and Flute 2 (Fl. 2) staves. The flute parts feature a complex, rhythmic melody with many accidentals and slurs.
- Theme C variation:** Points to the Clarinet (Cl.) and Bassoon (Bsn.) staves. The clarinet part has a steady, rhythmic pattern, while the bassoon part has a more complex, syncopated rhythm.
- Theme A variation:** Points to the Horn 1 (Hn. 1), Horn 2 (Hn. 2), Trombone 1 (Tbn. 1), and Tuba (Tba.) staves. The brass section plays a rhythmic pattern of groups of three quarter notes, with a dynamic marking of *p* (piano).

The score is in 5/4 time, as indicated by the time signature at the beginning of the first staff. The key signature has one flat (B-flat). The overall texture is dense and polyrhythmic.

The implied harmony in this section is very consonant compared with Section E. The harmony here embarks on another journey away from G minor from where it begins. The chord types are mostly major or minor configurations with consonant extensions.

Bars 154-156	157	158	159-160	161	162-163
G	Emin	Bmin	F#	C#min	A

Bars:164-165	166-167	168-169	170	171	172	173
Dmin	B ^b	F	Gsus	G#11	A#11	B#11

Bar: 174	175	176
Underlying harmony G#11	Gmin7	Gmin7
Horns: G, Amin13, Emin add9	Emin7 ^b 9, F69, Dsus,G9	F/C, A ^b maj9, B ^b maj7add4

For the brass chorale section I tried to ensure that, like before, all voices move melodically. For me this adds a warmth and richness of texture which is very welcome at this point.

In the last measure of F, bar 176, the piano plays a syncopated rhythm which effectively outlines dotted 8th notes undergoing displacement. This rhythm has been heard before in Section E (bars 125 and 126) and it now forms the main fabric of texture.

Section G

Bars 177-182

This penultimate section uses new material mixed with old. The new material is found in the woodwinds and trumpet and is the consequence of the developments of Section F. The older material, played by the strings and brass is based on the aforementioned rhythm from bars 125 and 126 and the harmony is based on the chord progression found in Section B.

This section opens with a sudden loud dynamic and it functions as last peak of the piece.

The image shows a musical score for measures 177-180. The score is divided into two systems. The first system (measures 177-180) features a new variation of Theme B in the woodwinds, indicated by a box labeled "New variation of Theme B" with an arrow pointing to the Flute 1 and 2 staves. The second system (measures 181-184) features a supporting ostinato in the strings, indicated by a box labeled "Ostinato using symmetric rhythm" with an arrow pointing to the Violin I and II staves. The score includes parts for Flute 1 and 2, Horns 1 and 2, Trombone 1, Tuba, Piano, Violin I and II, Viola, Violoncello, and Contrabass. The key signature is one flat (B-flat major or D minor), and the time signature is 4/4. The score is marked with a forte (f) dynamic and includes various rhythmic notations such as dotted rhythms and complex groupings.

The complex figure that mixes 16th and 32nd with dotted 32nds (16 over 3) forms a very interesting juxtaposition with the new supporting rhythmic figure. Asymmetric entry and resolution points add greatly to the interest of the material found in the woodwinds. With regard to the supporting ostinato the fact that it repeats every five beats suggests asymmetric phrasing. Also the attacks are positioned in such a way as to mask the underlying pulse which creates ambiguity and excitement at the same time. The contrast between the asymmetric bar length and the symmetric rhythm creates an interesting tension.

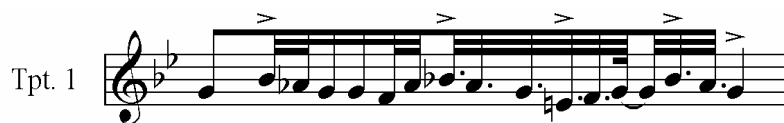
Note:

I grouped the beams like this to emphasise the nature of symmetry within the phrase.

Up to first bar of G, this motif is played twice consecutively to create a five-beat phrase.

It is now broken up into smaller units played by flutes 1 and 2, then trumpet and then clarinet.

The melodic idea here was first hinted at during the climax of Section D by the high woodwind material. Subconsciously, this line was influenced by an improvised trumpet solo that I heard a friend of mine playing in the Banff Centre in Canada over the chord changes of a tune called 'The Jitterbug Waltz', a Fats Waller Jazz standard. The chords are constantly moving but they are all diatonic and function in service to the tonal centre. My friend seemed to ignore the chord changes for a time and concentrate on just the key centre. His improvised lines were extremely chromatic and angular and his pitches choices were anything but strictly diatonic. What made the improvisation so successful was that he kept returning to the tonic note. Very adventurous soloing occurred but it kept being validated by the return to the tonic. There is a similar concept employed here in terms of non-diatonic pitches being validated by frequent use of the tonic.



This melody strongly outlines the note G while using a segment of the octatonic scale. The inherent tonal contradiction in the scale contributes to the tension and interest of this line. The changing harmony has varying tonal relationships to the key of G and there is an interesting push and pull within it. The various shadings of tension and release inherent within both the harmonic movement and within this melodic line form an interesting and organic texture here.

The chords here follow almost the same harmony as was first played in the latter half of Section B. Here it is played by the string section along with horns 1&2, trombone 1 and the tuba.

Note:

The first chord of bar 176 and the chord in bar 180 I use the interval of a $\flat 9^{\text{th}}$ in the voicing even though it goes against most text books on harmony. The great arranger and orchestrator Gil Evans often used it for richness and effect. When improvising at the

piano I often use voicings with this interval as I personally find the results to be more interesting than the standard positioning.

Section H

Bars 183-205

This final section is the winding down of the work and is both a development and a recapitulation of Theme C.

My initial urge was to end the piece with a big bang but it became evident that this was not necessary and that a soft and lyrical ending would be much more effective.

In bars 183 to 196, the two defining characteristics of the original Theme C are presented simultaneously. Firstly the harmony of the chords, which is outlined by just the top and bottom tones, is presented here in augmentation with one chord per bar of 3/4, with the high pitch played in octave unison by piano and violins with the low pitch played by the violas, cellos and basses also in octave unison. The other element is the one-bar rhythmic and harmonic shift found in the original Theme C motif.

183 **H**

Contrasting motif of Theme C

Low and high notes of Original Theme C

Hn. 1

Hn. 2

Tbn. 1

Pno.

Vln. I

Vln. II

Vla.

Vc.

Cb.

The harmonic concept used here was passed on to me by a great jazz pianist and composer called Jason Moran who had received it from another great jazz pianist and composer called Andrew Hill. The basic idea is the use of a low and a high note that outline a diatonic chord progression. In between those two pitches you place non-related 7th chords, the qualities of which can vary to any desired sound. The interest lies within the modern inner voice movement and juxtaposition of tonalities. These theoretically incompatible harmonies vying for prominence creates a very interesting effect in my opinion.

The first 7 chords of Section C are outlined and played twice.

The instrumentation for this section can be seen as follows:

Bars 183-188	189	190-192	193-196	197-198	199-205
Inner Harmony Horns 1&2, Trombone 1	Horn 2, Trumpets 1&2, Trombone 1	Flute, Horn 2, Trumpets 1&2, Trombone 1	Oboes 1&2, Clarinet 1 and Horn 2	Oboe 1, Clarinet 1&2	Flute 1, Clarinet 1&2
Upper and Lower notes in all strings			Violins 1 & Violas	Tacit	Tacit

During this final section there is an upward contour to all of the material as well as an added lightness of touch which creates a heretofore unheard delicacy in the music. Again asymmetric phrasing is utilised. The chord progression outlined in the low and high notes is 7 bars in length and is played twice. The inner movement with its 4 over 3 polyrhythm and variation thereof along with half note resolution points, unfold in the following phrase lengths: 3, 3, 4, 4, 3 bars.

At bar 199 this motif returns to the original Theme C material, this time in a higher register and played much more delicately by the lighter woodwind instruments. The last 3 chords of the phrase are played in augmentation, now being two beats apart and there is a contrary motion resolution to a B major triad to finish the piece.

Conclusion

This was certainly the most time and energy consuming piece in this portfolio, though I think I learned the most from it. I now have a very good understanding of how orchestral music is constructed in terms of thematic material, the presentation of ideas, textural variety and orchestration. My understanding of a wide range of orchestral instruments has also vastly improved. One of the most interesting aspects of working on this piece was exploring the idea of simultaneity, which Eric Sweeney had suggested to me. How the different themes interact and are superimposed onto one another creates the most interesting results in this work in my opinion. This idea is an extremely rich and fertile resource for the future creation of musical compositions.

Shilimba Chant

Music for mixed sextet

Instrumentation

2 Marimbas

Vibraphone

2 Guitars

Acoustic bass

April - May 2010

Analysis of Shilimba Chant

Introduction

Concepts borrowed from minimalistic music forms the basis of this piece. I decided on this source for the following reasons:

- a) It was an area that I was as yet unfamiliar with and I felt that learning from it would enhance my abilities as a composer.
- b) Minimalism is influenced by many types of music that I already had an affinity with including jazz, African, Indian classical, folk and pop and I could therefore use my prior knowledge to approach the subject in my own way.
- c) It gave me the opportunity to write a piece that could be accessible and at the same time stimulating for the listener.

In early minimal pieces by Steve Reich the compositional process is extremely important. Many of the pieces conclude when the process itself has run its course. Though an interesting concept, I find this approach to be too mechanical for my tastes at present. Therefore this work is more akin to later Steve Reich pieces like 'Music for 18 Musicians' and many works by John Adams in which the process is secondary to the music and the composer can signal change according to his or her own aesthetic judgement.

The characteristics of this piece that are typical of minimalism are as follows: very rhythmic, limited thematic information, looping rhythmic cells, slow moving harmony, often consonant, use of additive process, use of layering, similar in sound to jazz, world and pop music. The elements which are uncharacteristic of Minimalism are: a comparatively fast rate of textural change, occasional abrupt musical change and the use of a 12-tone row and its retrograde.

I chose this instrumentation for a few different reasons. Firstly none of these instruments

require any breath to play and therefore repetitive rhythmic figures with few rests pose little difficulty. Secondly this instrumentation produces a very warm texture, in particular the marimbas which evoke African polyrhythmic folk music. I chose the vibraphone (the only electricity-dependent instrument here) because the timbral sharpness due to the metal bars allows melodic figures to easily cut through the main texture.

Note:

My supervisor voiced his concerns that some of the parts might be too rhythmically virtuosic for the average player. After giving this some thought I realised that the best action to take would be to provide rhythmic training for the musicians prior to the performance of the piece. I would teach the training personally as I have already four years experience teaching rhythm studies on the Jazz Performance BA course in Newpark Music Centre. The main aim of the training would be for the performers to internalise all of the rhythmic patterns. For this piece to be successful it is important for each musician to know the relationships between the parts but most importantly the relationship of their own part to the underlying pulse.

Analysis

This piece is constructed using the following four rhythmic cells:

Cell 1		Rhythmic Units: 2, 3, 3, 2
Cell 2		Rhythmic Units: 2, 3, 1, 3
Cell 3		
Cell 4		Rhythmic Units: 3, 2, 1, 2

Cells 1, 2 and 4 are each made up of four attacks that are either one, two or three units in length.

Cell 3 is an adaptation on the *son clave* found in Afro-Cuban music. The *clave* is a very satisfying dance rhythm due to the distribution and balance of attacks which are on and off the beat.

At times these rhythmic cells are played at half speed or double speed and on occasion are subject to a reductive or additive process.

My main focus for this piece was the creation of a multi-rhythmic layering similar in nature to African polyrhythm. When creating these layers close attention was paid to the balancing of slow moving rhythms with fast moving ones. This idea is summed up perfectly by a quote by Steve Reich in his book 'Writings on Music'¹:

'...the metropolis is buzzing, but the clouds overhead are passing calmly over a field.'

Regarding pitch, these rhythmic cells are approached using any of the following amounts of pitches:

- a) 1 pitch – a percussive drone
- b) 4 pitches – a consonant melody or set of chords
- c) 12 pitches – a longer melody or bass-line using a twelve-tone row or a pentatonic melody

Form

The overall form can be presented using the following table. The numbers here represent the corresponding rhythmic cells as seen above.

¹ Oxford University Press, USA; illustrated edition (April 11, 2002)

Section A	1	12	123	1234	Fast layer reduction
Section B	2	23	234	2341	Fast layer reduction
Section C	3	34	341	3412	Layer reduction
Section D	32	324 Additive process and building of tension			
Section E	1234 recap	1234 variation	123	12	1

There are five distinct sections in this work. Sections A, B and C all follow a similar arc of activity as can be seen above. Section D also builds in tension but does so with the use of an additive process rather than by use of layering. Section E begins with a full texture and winds down to nothing, like a version of Section A in reverse.

Section A

In this opening section we see a gradual build up of polyrhythmic layers which peak in intensity with the arrival of a set of chords. After this the layers quickly drop away one by one to leave a single voice again.

Guitar 1 begins by repeating the rhythm of Cell 1 on the pitch D. This lasts from bars 1 to 5.

Guitar 1 

mp

In bar 6, Cell 2 is added as Cell 1 completes one full cycle. Guitar 2 plays Cell 2 and these two cells form the polyrhythm of 5 against 9. The added pitch is a lower F and a D minor chord is heard.

6

Gtr.1

Gtr.2

mp

Note: with regard to the beaming of notes in Cell 2, I decided that the invisible bar line was the best approach. This divides a bar of 4/4 into two sets of 2/4 and the note-beamings do not cross that line which allows for visual clarity. I chose not to use the invisible bar line for the slower rhythmic cells as these dotted rhythms are self evident.

In bar 15, Cell 3 is added as Cell 2 completes one full cycle and is played by marimba 2. We now have a three-layered polyrhythm of 5 against 6 against 9 which continues up to bar 23. The added pitch here is a low C which makes the chord a Csus9.

15

Gtr.1

Gtr.2

Mar.2

mp

In bar 24 marimba 1, the vibraphone and the bass enter simultaneously with the use of chords played in the rhythm of Cell 4. The entrance of these three instruments together feels sudden in contrast to the gradual layering up to this point. We now have all four cells playing together which creates the polyrhythm of 5 against 6 against 8 against 9. Interest is also created from the shifting harmony which has been static up to now. The relatively slow chord movement found in the upper and lower voices which effectively sandwich the harmonically static and driving rhythms found in the middle register voices, creates a rich and contrasting texture. The chords here are Gsus, Gsus/B, Ddim9^{b7} and F6⁹ which are heard overall as an F Lydian sound. Guitar 1 and marimba 2 swap the pitches of C and D but remain in their own registers.

Graphic bars 23-24 show chords and moving/non-moving pitches

The image shows a musical score for graphic bars 23-24. It consists of six staves: Mar.1, Vib., Gtr.1, Gtr.2, Mar.2, and A. Bass. The score is written in 4/4 time. The first two staves (Mar.1 and Vib.) are marked *mp* and feature moving chords. The last three staves (Gtr.1, Gtr.2, and A. Bass) are marked *mp* and feature static rhythms. Callouts on the right side of the score point to the moving chords and static rhythms.

This consonant texture lasts up to bar 33 where marimba 1, the vibraphone and the bass drop out leaving in place the driving three-layered rhythm played in both guitars and marimba 2.

In bar 36 marimba 2 drops out and in bar 39 guitar 1 drops out leaving only guitar 2 playing Cell 2.

Section B

This section follows a similar arc of activity to that found in Section A.

From bars 39 to 41 Cell 2 is played solo by guitar 2. This cell is made up of a fast rhythm in 9 and without any reference points the pulse becomes obscured momentarily.

With the entrance of Cell 3 played by guitar 1 the pulse becomes clear once again. The pitches here are F and a higher E \flat which is heard as an incomplete F7 chord.

The polyrhythm of 6 against 9 continues to bar 47.

42

Gtr. 1

Gtr. 2

In bar 48 marimba 2 joins in and we hear Cells 2, 3 and 4 played together. The rhythm of Cell 4 is slow by comparison to the other cells and, due to its profile which consists of downbeats, its presence helps to further clarify the pulse. The marimba adds a low C, the 5th of the F7 chord. The polyrhythm 6 against 8 against 9 continues up to bar 53.

In bar 54 marimba 1, the vibraphone and the bass are added to the texture in a similar fashion to Section A. Here the chords use Cell 1 and are Gmin11^b6, F7sus/A, B^bmin11 and G^bmaj7#11. These chords again are heard in the context of F but they are more minor and dark than before. Again the static harmony and driving rhythms of the inner parts surrounded by the high and low chord movement create an interesting texture.

54

Mar. 1

Vib.

Gtr. 1

Gtr. 2

Mar. 2

A. Bass

mf

mf

mf

mf

mf

mf

The polyrhythm of 5 against 6 against 8 against 9 is realised for a second time but due to the cells being distributed differently, the polyrhythm has a different flavour. This minor key texture lasts until bar 63 where again the chords drop out leaving the three-part polyrhythmic layer in the two guitars and marimba 2.

In bar 67 guitar 2 drops out leaving the other two instruments playing Cells 3 and 4.

Section C

In this section there is a long and gradual build up of tension which climaxes at the end of Section D. A wider tonal area is explored due to the inclusion of a 12-tone row in the bass.

In bar 69 marimba 2 drops out leaving the *clave* rhythm of Cell 3 being played alone by guitar 1. In bar 70, guitar 2 returns playing the rhythm of Cell 4. The pitches are B^b and C a tone apart and form an incomplete C7 chord. The two guitars play the polyrhythm of 6 against 8 which is heard up to bar 74.

In bar 75, with the introduction of a 12-tone row in the bass, a more expansive tonal territory is explored. Here is the row:

C F F[#] B G A E^b D D^b E A^b B^b

This row is used in conjunction with Cell 1.

The musical score shows three staves for bars 75 to 78. The top staff is for Gtr. 1, the middle for Gtr. 2, and the bottom for A. Bass. The bass staff begins with a 12-tone row: C, F, F#, B, G, A, Eb, D, Db, E, Ab, Bb. The dynamics are marked *mp* at the start of the bass line.

Because the guitars so strongly outline the key of C, and the fact that the first pitch of the row is a C, the entire row is heard in the context of the a C tonal centre. This results in tonal variations of C rather than an impenetrable atonality that would normally be associated with the use of a serial row. This continuously varying three-part texture continues until bar 81.

In bar 82 marimba 1 and the vibraphone introduce a harmonised melody using notes from the C minor pentatonic scale along with the rhythms of Cell 2. It begins as a twelve-note melody divided into three groups of four pitches and later undergoes a reductive process. Each group of four pitches coincide with the four attacks of Cell 2. The vibraphone is mostly harmonised a perfect 4th below marimba 1 but there is

occasional usage of a major 3rd to fit my aesthetic judgement. This pentatonic melody played on pitched percussion instruments is very evocative of African music or Gamelan music of Indonesia. Once more the full four-part polyrhythm is realised and again has a different character.

During this two-part melody I have placed rests to allow the music some room to breathe, the first of which appears in bar 87. When the melody returns, there is a subtle colour shift as the vibraphone line incorporates a D \flat rather than a D \sharp which darkens the music fractionally.

89

Mar. 1

Vib.

Gtr. 1

Gtr. 2

A. Bass

In bar 92 again we see a pause in the minor pentatonic melody and upon its return in bar 93 one of the four-note groupings has dropped down an octave. In bar 95, the melody undergoes a reductive process as it changes from a twelve-note figure to an eight-note figure. The pitches are taken from the second and third group of four notes found in the twelve-note melody.

Mar. 1

Vib.

Again a pause in the melody occurs in bar 97 and when it returns in bar 98 it has been reduced further to a four-note figure. These pitches used here are the third grouping of the original twelve-note figure played in the lower octave and are G F C and E \flat coupled with D \flat C A \flat and G. These pitches outline a C Phrygian scale which, being a dark sound, contributes to the rising tension of this section.

105

Mar. 1

Vib.

There is one last pause in this continually developing melody found in bar 102 and when it returns in bar 103, this rhythmic line is played continuously throughout Section D as well.

In bar 105 the bass drops out which allows the music to harmonically stabilise without the constant twelve-tone shifting. This bar also sees marimba 2 doubling up the *clave* rhythm of Cell 3 while the guitar 1 line switches to guitar 2. Here the *clave* plays the note C in octaves while the C Phrygian melody is playing in two-part harmony in a 6 against 9 polyrhythm.

In bar 106 the texture is darkened once more as marimba 1 line plays a D \flat instead of an E \flat . There are subtle changes happening every bar or two during this passage of the piece. In bar 107 the vibraphone now changes from a four-note figure to the fixed pitch of G. In bar 108 guitar 2 part moves from a C to an E \flat . In bar 111 marimba 1 now also moves from a four-note figure to the fixed pitch of D \flat and a dark chord is realised in four parts. The pitches from the bottom up are C G D \flat and E \flat which forms a C minor chord with a $\flat 9^{\text{th}}$.

Section D

This section continues the build-up of tension that began in Section C. Here most of the rising tension is created by the use of an additive process that takes place in marimba 1 and vibraphone part.

In bars 113 to 115 there is a slight drop in intensity due to the *clave* based rhythm from Cell 3 changing to half time. The music is still tense though at this point due to the

Cmin^b9 chord and the sustained polyrhythmic activity.

Bar 116 represents the beginning of an additive process that takes place in marimba 1 and the vibraphone parts using the rhythm from Cell 4 in quadruple time. The first occurrence of this process is a two-note figure which steadily grows to become a twelve-note figure. The spacing that occurs within this process was chosen, again, according to my aesthetic judgement.

The musical score for Bar 116 consists of six staves. The top two staves, Mar.1 and Vib., show an additive process where a two-note figure grows into a twelve-note figure over three measures. The bottom four staves, Gtr.1, Gtr.2, Mar.2, and A. Bass, show a Clave rhythm in half time. Two callout boxes on the right side of the score identify the 'Additive process' and 'Clave in half time'.

The pitches that coincide with this additive process are taken from the retrograde version of the previously used twelve-note row:

1	2	3	4	5	6	7	8	9	10	11	12
C	B ^b	A ^b	E	D ^b	D	E ^b	A	G	B	F [#]	F

These pitches are found in marimba 1 part while the vibraphone plays a perfect 4th above it, keeping that intervallic relationship intact regardless of the underlying harmony. This angular and disjointed relationship with the supporting chords creates an interesting juxtaposition.

The distribution of these growing figures, the amount of pitches and which pitches they cover from the retrograde row can be summarised in the following way:

Bar no:	116-117	118-120	121-131	124-127	128-136	137-142
Amount of notes:	2	4	6	8	10	12
Number of appearances:	2	2	2	2	3	4
Retrograde Pitch Numbers:	1-2	1-4	1-6	1-8 2-9	2-11 3-12	1-12

In bar 122 the four-part chord changes from Cmin^b9 to A^b6 which allows a release of tension during this section which is the most active and dark part of the work.

In bar 134 the chord changes again, this time from A^b6 to Gmin^b9 which is similar in dissonance to the Cmin^b9 chord and is spelled G A^b B^b D with the two guitars playing the inner voices.

From bars 137 to 142 the additive process completes its course and the twelve-note figure is fully realised, appearing now without any rests. This climax of the piece contains an interesting mixture of stability and tension. The stability is due to the rhythms containing solid and frequent points of resolution with downbeats landing every two beats, the tension due to the full twelve-note row being sounded repeatedly in two-part quartal harmony.

The musical score shows six staves for bars 137-142. The staves are labeled: Mar.1, Vib., Gtr.1, Gtr.2, Mar.2, and A. Bass. The notation includes various rhythmic patterns and accidentals, illustrating the complex texture described in the text.

To conclude the climax and Section D a rest of two beats is found in all parts in bar 143. This abrupt pause marks the transition back to material previously heard in Section A.

Section E

From bars 144 to 151 there is an exact repetition of the climax of Section A which functions as a release after the continually building tension found in Sections C and D.

From bars 153 to 160 there is a variation on the climax of Section A. The chords here are Gsus13, Fmaj/B, Fmin9b5 and Eb69/Bb and along with being close in nature to the preceding chords are again heard in the context of F. The moving parts in the previously static inner voices contribute to the slightly different flavour of this passage compared to the preceding one.

153

Mar.1 *f*

Vib. *f*

Gtr.1 *f*

Gtr.2 *f*

Mar.2 *f*

A. Bass *f*

In bar 161 and 162 the final chord of the progression is played on three consecutive downbeats. In bars 163 and 164, the same chord is played on two consecutive downbeats and in bar 165 it appears on a single downbeat. This reductive process has the function of subtly summarising and balancing the lengthy additive process witnessed

earlier in the piece. It also signals the winding down of the piece along with pre-empting the systematic removal of the layers.

From bars 166 to 179 the instruments drop out one by one in the reverse order in which they appeared during the opening passage of the work.

Conclusion

It was a great pleasure for me to explore these multi-rhythmic ideas and to marry them to contemporary classical concepts within the framework of Minimalism. I am very happy with this result and feel that I have put a personal slant on this genre. Though I am unlikely to become a purist in this style, I feel that it is another very useful and valid form of exposition which I will draw upon in the future to enrich my compositional output.

General Conclusions

During this programme, I wrote for many instruments and in styles I was unfamiliar with. It was a great privilege to learn and grow with Eric Sweeney as my guide.

After two years of extensive research and exhaustive composition, I see how much original music that I have produced. I also realise how much I have learnt, how my own compositional language has been expanded and, most importantly, how much material I have to continue with my development for years to come.

I feel that my confidence has greatly improved as a composer to the point where writing for any instrumentation and in any style would pose no major difficulties.

A very beneficial outcome of this study is the fact that I am becoming aware of my own approach to the compositional process. Although the compositions included in this portfolio sound very different from each other, they all reflect musical sounds to which I am personally attracted. These sounds are created through the use of functional mixed with non-functional harmony, the use of asymmetric phrase lengths, a rigorous approach to rhythm, a 'singable' approach to melodies and the use of simultaneous layering within the music.

Due to these two years of research, I feel that I have found who I am as a composer. This knowledge will not only benefit me but also my students, my listening audience and the community of composers and musicians with whom I have regular contact.

Experience Diary

Performances

- Greg Felton Quartet – Irish tour organised by Music Network
J.J.Smiths, Dublin, Triskel Arts Centre, Cork, Westport Arts Festival, Factory Space, Sligo – September, October, November 2008.
- Isotope - J.J.Smiths, Dublin – September, October 2008
- Bang Hazard – Dublin Electro-Acoustic Festival – October 2008
- Nigel Mooney - J.J.Smiths, Dublin – October 2008
- Louis Stewart – Le Cirque, Dublin – November 2008
- White Rocket tour of the USA: Chicago, Cincinnati, Athens (Georgia), Charleston, Charlottesville, Philadelphia, New York. Also recorded our second album in Brooklyn, NY during this trip – February 2009
- Greg Felton Trio represent Ireland in week long Biennale of Young Artists in Skopje, Macedonia organised by Music Network and Culture Ireland – five performances - September 2009
- White Rocket represent Ireland in New Dehli – India Islamic Cultural Centre – November 2009
- Premiere of my ‘Piano Sonata No.1’ performed by Izumi Kimura for the Kaleidoscope series – Odessa Club, Dublin – March 2010
- Greg Felton Trio – Garter Lane Arts Centre as part of Waterford New Music Week – March 2010
- Greg Felton Trio live set on the JK Ensemble on Lyric FM as part of National Music Day organised by Music Network, St. John’s Church, Limerick – April 2010
- Performance of my ‘Piano Sonata No.1’ played by Izumi Kimura followed by the Greg Felton Duo as part of the Newpark Music Centre Faculty Series – April 2010

Concerts attended

- Mark Turner – J.J. Smiths, Dublin – October 2008

- Herbie Hancock – Tripod, Dublin – November 2008
- Scratch the Surface - Hugh Lane Gallery – November 2008
- Premiere of Donnacha Dennehy’s ‘Crane’ in National Concert Hall - September 2009
- Yurodny featuring Linda Buckley – Button Factory – October 2009
- Irish Composer’s Collective – National Concert Hall - November 2009
- Bill Bailey’s Guide to the Orchestra – The O2, Dublin – November 2009
- Kaleidoscope – Odessa Club, Dublin – December 2009
- Kaleidoscope – Odessa Club, Dublin – February 2010
- Coconut Raft – Project Arts Centre – March 2010
- Ergodos Festival – Project Arts Centre – April 2010
- Vertical Thoughts exhibition in IMMA focusing on Morton Feldman and associated artists

Teaching & Workshops

- Teaching Jazz Composition, Rhythm Studies, Transcription and Piano on the BA in Jazz Performance course in Newpark Music Centre. Two years of 26 weeks per year. Presentation of various topics along with real-time feed-back of original Jazz compositions.
- Introduction to Jazz and Improvisation workshop – Sligo Factory Space – November 2008
- White Rocket Jazz workshop New Dehli Music Society, New Dehli – November 2009
- Greg Felton Trio Jazz and Improvisation workshop – Garter Lane Arts Centre as part of Waterford New Music Week – March 2010
- Attended a rhythm workshop given by Steve Coleman in Newpark Music Centre in which I performed. The following night was invited to a private lesson which covered advanced rhythmic techniques.

Bibliography

- Adler, S. *The Study of Orchestration*. W. W. Norton & Co. U.S.A., 2002.
- Warburton, A.O. *Score Reading, Form and History*. Cambridge University Press. U.K., 1999.
- Smith Brindle, R. *The New Music, the Avant-Garde since 1945*, Second Edition. Oxford University Press Inc. U.S.A., 2003.
- Matossian, N. *Xenakis*, Moufflon Publications Ltd. Cyprus, 2005.
- Ulehla, L *Contemporary Harmony, Romanticism through the Twelve-Tone Row*. Advance Music. Germany 1994.
- Cage, J. *Silence*. Marion Boyars. U.K. 2006.
- Guilfoyle, R. *Creative Rhythmic Concepts for Jazz Improvisation*. Newpark Music Centre. Ireland, 1999.
- Pease, T. *Jazz Composition – Theory and Practice*. Berklee Press. U.S.A., 2003.
- Hindemith, P. *Elementary Training for Musicians*. Schott. U.S.A., 1974.
- Schoenberg, A. *Fundamentals of Musical Composition*. Faber and Faber Limited. U.K. 1988.
- Ross, A. *The Rest is Noise, Listening to the Twentieth Century*. Fourth Estate, HarperCollins Publishers. U.K., 2008.
- Oliver, M. *Settling the Score, a Journey through the Music of the 20th Century*. Faber and Faber Limited. U.K. 1999.
- Subramaniam, L. *Euphony, Indian Classical Music*. Eastwest Books. India, 1999.
- Rimsky-Korsakov, N. *Principles of Orchestration*. Dover Publications, Inc. U.S.A. 1964.
- Berlioz, H & Strauss, R. *Treatise on Instrumentation*. Dover Publications, Inc. U.S.A. 1991.
- Liebman, D. *A Chromatic Approach to Jazz Harmony and Melody*. Advance Music. Germany 2001.
- Reich, S. *Writings on Music*. Oxford University Press. U.S.A., 2004.

- Staines, J. & Clark, D. *The Rough Guide to Classical Music*. Rough Guides Ltd. U.K. 2005.

Scores

- Webern, A. *Variationen Für Klavier, Opus 27*. Universal Edition No. 16845. Austria, 1979.
- Schoenberg, A. *Verklarte Nacht and Pierrot Lunnair*. Dover Publications, Inc. U.S.A. 1994.
- Beethoven, L. van. *String Quartet No. 14, Op. 131*. Dover Publications. U.S.A. 1970.
- Bartók, B. String Quartet no. 3. Boosey & Hawkes, Inc. U.S.A. 1956
- Bartók, B. String Quartet no. 4. Boosey & Hawkes, Inc. U.S.A. 1956
- Bartók, B. String Quartet no. 5. Boosey & Hawkes, Inc. U.S.A. 1936
- Haydn, J. String Quartet in B^b ‘Sunrise’ Hob.III:78. Dover Publications. U.S.A 1979
- Ravel, M & Debussy C. *String Quartets by Debussy and Ravel*. Dover Publications Inc. U.S.A. 1987.
- Tallis, T. *Spem in Alium*. Boosey & Hawkes. U.K. 1996.
- Britten, B. *Hymn to St. Cecelia*. Boosey & Hawkes. U.K. 2000.
- Bartók, B. *Concerto for Orchestra*. Boosey & Hawkes. U.K 1993
- Bartók, B. *Music for String Instruments, Percussion and Celesta*. Boosey & Hawkes. U.S.A 1937.
- Stravinsky, I. *The Rite of Spring*. Boosey & Hawkes. U.K, 1997.
- Stravinsky, I. *Symphony in C*. Ernst Eulenburg & Co GmbH. U.K, 1984.
- Stravinsky, I. *Symphony in Three Movements*. Ernst Eulenburg & Co GmbH. U.K, 1984.
- Guilfoyle, R. *Synopsis*. Composer’s manuscript.
- Wagner, R. *Tristan und Isolde, WWV 90*. Dover Publications. U.S.A., 1973.
- Strauss, R. *Tod und Verklärung, Op. 24*. Dover Publications. U.S.A., 1979

Acknowledgements

Thanks to my supervisor, Eric Sweeney, for the all wonderful stimulation and constructive criticism which was delivered with astuteness and empathy.

Thanks to Ronan Guilfoyle, Izumi Kimura, Sue Rynhart and Dylan Rynhart for their valued musical support.

Thanks to my BA students for allowing me to explore new musical ideas within their classes along with their consistently intelligent line of questioning which keeps me on my toes.

Thanks to Lucas Wilson, Clare Fletcher, Eoghan de Hoog and Charlotte Poret for all the babysitting!

Thanks to my cousin Chris van der Lee for helping to relieve the stress.

A huge thanks to all my friends and family who have supported me through these last two years, especially my parents, Anna and Derek Felton, and my parents-in-law Rachel and Cormac Boydell.

Most of all, a special thanks to my fiancée Molly and my daughter Alannah, for their continued love and patience while I was immersed in this research.

**Portfolio of Original Compositions for
Various Performing Groups with Detailed
Analyses**

By

Greg Felton

Master of Arts

Waterford Institute of Technology

Supervisor

Dr. Eric Sweeney

Volume 2 of 2

Musical Scores

Submitted to the Waterford Institute of Technology, May 2011

Piano Sonata No. 1

Solo piece in three movements.

Instrumentation

Piano

September - November 2008

Piano Sonata No.1 - Movement 1

Greg Felton 2008

A ♩ = 100

mf

3

5

7

p

mf

10

12

15

15

p

pp

Measures 15-16: Treble clef, 5/4 time signature. Measure 15 features a piano (*p*) dynamic with a series of eighth notes and chords, some with accents. Measure 16 features a pianissimo (*pp*) dynamic with a similar rhythmic pattern. The bass clef part consists of chords and eighth notes.

17

17

mf

8va

Measures 17-19: Treble clef, 4/4 time signature. Measure 17 starts with a mezzo-forte (*mf*) dynamic. Measure 18 includes an *8va* (octave up) marking. Measure 19 continues the melodic line. The bass clef part features a steady eighth-note accompaniment.

20

20

8va

Measures 20-21: Treble clef, 5/4 time signature. Measure 20 includes an *8va* marking. Measure 21 continues the melodic line. The bass clef part features a steady eighth-note accompaniment.

22

22

f

p

Measures 22-23: Treble clef, 5/4 time signature. Measure 22 starts with a forte (*f*) dynamic. Measure 23 features a piano (*p*) dynamic. The bass clef part features a steady eighth-note accompaniment.

23

23

mf

p

Measures 23-24: Treble clef, 5/4 time signature. Measure 23 starts with a mezzo-forte (*mf*) dynamic. Measure 24 features a piano (*p*) dynamic. The bass clef part features a steady eighth-note accompaniment.

25

25

B

mp

p

Measures 25-27: Treble clef, 4/4 time signature. Measure 25 starts with a mezzo-piano (*mp*) dynamic and includes a section marker **B**. Measure 26 features a piano (*p*) dynamic. Measure 27 continues the melodic line. The bass clef part features a steady eighth-note accompaniment.

28

mp

31

34

37

C

p *mf*

39

42

44

Musical score for measures 44-45. The piece is in 3/4 time. Measure 44 features a bass line with eighth notes and a treble line with quarter notes. Measure 45 continues with similar rhythmic patterns. Dynamics include accents (>) and a piano (p) marking.

46

Musical score for measures 46-48. Measure 46 has a treble line with eighth notes and a bass line with quarter notes. Measure 47 includes an 8va marking above the treble line. Measure 48 continues the melodic and harmonic development. Dynamics include accents (>) and a piano (p) marking.

(8)

49

Musical score for measures 49-52. Measure 49 features a treble line with eighth notes and a bass line with quarter notes. Measure 50 includes a piano (pp) marking. Measure 51 has a piano (p) marking. Measure 52 continues the piece. Dynamics include accents (>) and piano (pp) markings.

(8)

53

Musical score for measures 53-55. Measure 53 features a treble line with eighth notes and a bass line with quarter notes. Measure 54 includes a piano (p) marking. Measure 55 continues the piece. Dynamics include accents (>) and piano (p) markings.

(8)

56

Musical score for measures 56-57. Measure 56 features a treble line with eighth notes and a bass line with quarter notes. Measure 57 includes a mezzo-forte (mp) marking. Dynamics include accents (>) and mezzo-forte (mp) markings.

(8)

58

Musical score for measures 58-60. Measure 58 features a treble line with eighth notes and a bass line with quarter notes. Measure 59 includes a mezzo-forte (mf) marking. Measure 60 continues the piece. Dynamics include accents (>) and mezzo-forte (mf) markings.

(8)

61

Musical score for measures 61-62. The piece is in 4/4 time. Measure 61 features a melodic line in the right hand with eighth notes and a bass line with chords and eighth notes. Measure 62 continues the melodic line with a half note and a whole note, while the bass line has a whole note chord. A dashed line above measure 61 indicates a repeat sign.

D

63

mp

Musical score for measures 63-64. Measure 63 starts with a dynamic marking of *mp*. The right hand has a melodic line with eighth notes, and the left hand has a bass line with eighth notes. Measure 64 features a change in time signature to 3/4, with a melodic line in the right hand and a bass line with eighth notes.

65

Musical score for measures 65-66. Measure 65 is in 3/4 time, featuring a melodic line in the right hand and a bass line with eighth notes. Measure 66 continues the melodic line with a half note and a whole note, while the bass line has a whole note chord.

68

Musical score for measures 67-68. Measure 67 is in 3/4 time, featuring a melodic line in the right hand and a bass line with eighth notes. Measure 68 continues the melodic line with a half note and a whole note, while the bass line has a whole note chord.

70

Musical score for measures 69-70. Measure 69 is in 3/4 time, featuring a melodic line in the right hand and a bass line with eighth notes. Measure 70 continues the melodic line with a half note and a whole note, while the bass line has a whole note chord.

73

Musical score for measures 71-72. Measure 71 is in 3/4 time, featuring a melodic line in the right hand with triplets and a bass line with eighth notes. Measure 72 continues the melodic line with a half note and a whole note, while the bass line has a whole note chord.

76

f *mp* *ff* *mp*

E

78

♩=60

80

poco accel..

82

84

86

89 *8va*

(8)

91

♩ = 100

92

93

95

8va

96

Piano Sonata No.1 - Movement 2

Greg Felton 08

A

♩=60

pp

3

5

9

12

pp mp p mp p mp pp

pp p mf p mf p

p mf p f

B

15 *p* *8va*

Musical score for measures 15-17. Treble clef, 4/4 time signature. Bass clef accompaniment. Dynamics include piano (*p*) and an *8va* marking. The melody in the treble clef features a series of eighth and sixteenth notes, with some accidentals. The bass clef accompaniment consists of chords and moving lines.

18

Musical score for measures 18-20. Treble clef, 4/4 time signature. Bass clef accompaniment. The melody continues with eighth and sixteenth notes. The bass clef accompaniment features chords and moving lines.

21 *8va* *8vb*

Musical score for measures 21-23. Treble clef, 4/4 time signature. Bass clef accompaniment. Dynamics include *8va* and *8vb* markings. The melody in the treble clef features eighth and sixteenth notes. The bass clef accompaniment consists of chords and moving lines.

24 *8va* *8vb*

Musical score for measures 24-26. Treble clef, 4/4 time signature. Bass clef accompaniment. Dynamics include *8va* and *8vb* markings. The melody in the treble clef features eighth and sixteenth notes. The bass clef accompaniment consists of chords and moving lines.

27

Musical score for measures 27-29. Treble clef, 4/4 time signature. Bass clef accompaniment. The melody continues with eighth and sixteenth notes. The bass clef accompaniment features chords and moving lines.

30 *8va*

Musical score for measures 30-32. Treble clef, 4/4 time signature. Bass clef accompaniment. Dynamics include an *8va* marking. The melody in the treble clef features eighth and sixteenth notes. The bass clef accompaniment consists of chords and moving lines.

33 **C**

mf p mf p

36

mf p mf p pp

39

pp mp p mp p mp p

43

pp

Piano Sonata No. 1 Movement 3

Greg Felton 2008

A ♩ = 90

4

7

10

13

15

p *mp* *p* *mp*

p *mp* *mp* *mp*

p

4

18

Musical score for measures 18-20. The piece is in 12/8 time. Measure 18 starts with a treble clef and a key signature of two flats. The bass line features a steady eighth-note accompaniment. Measure 19 continues the eighth-note accompaniment. Measure 20 shows a change to 6/8 time, with a dynamic shift from *p* to *f* and then *p*.

21

Musical score for measures 21-22. Measure 21 features a treble clef with a melodic line and a bass line with eighth notes. Dynamics include *f* and *p*. Measure 22 continues the eighth-note accompaniment in 6/8 time.

23

Musical score for measures 23-24. Measure 23 has a treble clef with a melodic line and a bass line with eighth notes. Dynamics include *f* and *p*. Measure 24 continues the eighth-note accompaniment in 12/8 time.

25

Musical score for measures 25-26. Measure 25 features a treble clef with a melodic line and a bass line with eighth notes. Dynamics include *f*. Measure 26 continues the eighth-note accompaniment in 6/8 time.

27

Musical score for measures 27-28. Measure 27 has a treble clef with a melodic line and a bass line with eighth notes. Measure 28 continues the eighth-note accompaniment in 6/8 time.

29

Musical score for measures 29-30. Measure 29 features a treble clef with a melodic line and a bass line with eighth notes. Dynamics include *mp*. Measure 30 continues the eighth-note accompaniment in 6/8 time.

31

mf

6/8 12/8

This system contains measures 31 and 32. Measure 31 is in 6/8 time and features a treble clef with a whole note chord and a bass clef with a half-note bass line. Measure 32 is in 12/8 time, with the treble clef playing a melodic line starting with a mezzo-forte (mf) dynamic and the bass clef continuing the bass line.

33

f p f

6/8

This system contains measures 33 and 34. Measure 33 is in 6/8 time, with the treble clef playing a melodic line marked with accents and dynamics of forte (f), piano (p), and forte (f). The bass clef continues the bass line.

35

p f p

6/8

This system contains measures 35 and 36. Measure 35 is in 6/8 time, with the treble clef playing chords marked with dynamics of piano (p), forte (f), and piano (p). The bass clef continues the bass line.

37

mp

12/8 6/8

This system contains measures 37 and 38. Measure 37 is in 12/8 time, with the treble clef playing a melodic line marked mezzo-piano (mp) and the bass clef playing a bass line. Measure 38 is in 6/8 time, with the treble clef playing a melodic line and the bass clef playing a bass line.

38

6/8

This system contains measures 38 and 39. Measure 38 is in 6/8 time, with the treble clef playing a melodic line and the bass clef playing a bass line.

39

6/8 6/4 5/4

This system contains measures 39 and 40. Measure 39 is in 6/8 time, with the treble clef playing a melodic line and the bass clef playing a bass line. Measure 40 is in 6/4 time, with the treble clef playing a melodic line and the bass clef playing a bass line.

41 **B** ♩=80

accel.

Musical score for measures 41-42. The piece is in 5/4 time. Measure 41 starts with a mezzo-piano (*mp*) dynamic. The score features complex rhythmic patterns with many sixteenth notes and rests. Measure 42 ends with a forte (*f*) dynamic marking.

43

Musical score for measures 43-44. The piece is in 4/4 time. Measure 43 continues with complex rhythmic patterns. Measure 44 ends with a mezzo-piano (*mp*) dynamic marking.

45

Musical score for measures 45-46. The piece is in 4/4 time. Measure 45 continues with complex rhythmic patterns. Measure 46 ends with a mezzo-piano (*mp*) dynamic marking.

47

♩=100

Musical score for measures 47-48. The piece is in 3/4 time. Measure 47 continues with complex rhythmic patterns. Measure 48 ends with a mezzo-piano (*mp*) dynamic marking.

49

Musical score for measures 49-51. The piece is in 4/8 time. Measure 49 continues with complex rhythmic patterns. Measure 51 ends with a fortissimo (*ff*) dynamic marking.

52

Musical score for measures 52-54. The piece is in 5/8 time. Measure 52 continues with complex rhythmic patterns. Measure 54 ends with a fortissimo (*ff*) dynamic marking.

54 **C** ♩ = 60 **accel.**

57 ♩ = 90

59

61

63

65

67

Musical score for measures 67-68. Measure 67 features a 4-measure rest in the treble clef and a quarter-note melody in the bass clef. Measure 68 has a 12-measure rest in the treble clef and a quarter-note melody in the bass clef. Dynamics include *f* and *p*.

69

Musical score for measures 69-70. Measure 69 has a 6-measure rest in the treble clef and a quarter-note melody in the bass clef. Measure 70 has a 6-measure rest in the treble clef and a quarter-note melody in the bass clef. Dynamics include *mf*.

71

Musical score for measures 71-72. Measure 71 has a 12-measure rest in the treble clef and a quarter-note melody in the bass clef. Measure 72 has a 12-measure rest in the treble clef and a quarter-note melody in the bass clef. Dynamics include *p* and *f*.

72

Musical score for measures 72-73. Measure 72 has a 6-measure rest in the treble clef and a quarter-note melody in the bass clef. Measure 73 has a 6-measure rest in the treble clef and a quarter-note melody in the bass clef. Dynamics include *p*.

73

Musical score for measures 73-74. Measure 73 has a 6-measure rest in the treble clef and a quarter-note melody in the bass clef. Measure 74 has a 6-measure rest in the treble clef and a quarter-note melody in the bass clef. Dynamics include *ff*.

75

Musical score for measures 75-76. Measure 75 has a 6-measure rest in the treble clef and a quarter-note melody in the bass clef. Measure 76 has a 12-measure rest in the treble clef and a quarter-note melody in the bass clef. Dynamics include *mf*.

D

77

Musical notation for measures 77-80. The piece is in a minor key. The right hand features a melodic line with eighth and sixteenth notes, while the left hand provides a steady bass line with eighth notes. A dynamic marking of *p* (piano) is present at the beginning of measure 77.

81

Musical notation for measures 81-84. The right hand continues with a melodic line, and the left hand has a bass line. Dynamic markings include *mf* (mezzo-forte) and *p* (piano).

85

Musical notation for measures 85-87. The right hand features a complex texture with many beamed notes. Dynamic markings include *mf*, *p*, *f* (forte), and *p*.

88

Musical notation for measures 88-89. The right hand has a dense texture of beamed notes, and the left hand has a steady bass line. A dynamic marking of *f* is present.

90

Musical notation for measure 90. The right hand features a descending melodic line with beamed notes, and the left hand has a steady bass line.

91

Musical notation for measure 91. The right hand features a descending melodic line with beamed notes, and the left hand has a steady bass line.

92

92

p

This system contains measures 92 and 93. The music is written for piano in a minor key. Measure 92 features a descending eighth-note pattern in both hands. Measure 93 continues this pattern with some chromatic alterations. A dynamic marking of *p* (piano) is placed above the bass staff in measure 92.

93

93

f *p* *f* *mf*

This system contains measures 93 and 94. Measure 93 has a dynamic marking of *f* (forte) above the treble staff. Measure 94 has dynamic markings of *p* (piano), *f* (forte), and *mf* (mezzo-forte) above the bass staff.

94

94

This system contains measures 94 and 95. Measure 94 continues the eighth-note patterns. Measure 95 features a change in the bass line, moving to a more active eighth-note accompaniment.

95

95

ff *f*

This system contains measures 95 and 96. Measure 95 has dynamic markings of *ff* (fortissimo) above the treble staff and *f* (forte) above the bass staff. Measure 96 continues with similar intensity.

96

96

ff

Sua

This system contains measures 96 and 97. Measure 96 has a dynamic marking of *ff* (fortissimo) above the bass staff. Measure 97 features a *Sua* (sustained) marking above the treble staff. The piece concludes with a final chord in the right hand and a double bar line.

FIN

Sixteen Strings

Piece for string quartet

Instrumentation

2 Violins

Viola

Violincello

January - March 2009

Sixteen Strings

Greg Felton 2009

♩=74 **A**



Violin I
p

Violin II
p

Viola
p

Violincello
p

3



Vln. I

Vln. II

Vla.

Vc.

6



Vln. I

Vln. II

Vla.

Vc.

9

Vln. I

Vln. II

Vla.

Vc.

Detailed description: This system contains measures 9, 10, and 11. The first violin part (Vln. I) features a complex melodic line with many accidentals and slurs. The second violin (Vln. II), viola (Vla.), and cello (Vc.) parts provide harmonic support with simpler, mostly quarter and half notes. The key signature has one flat and the time signature is 3/4.

12

Vln. I

Vln. II

Vla.

Vc.

Detailed description: This system contains measures 12, 13, and 14. Measure 12 is a whole rest for all instruments. Measures 13 and 14 show a change in the first violin part, with a new melodic line. The other instruments continue with their previous parts. The time signature changes to 5/4 in measure 13 and back to 3/4 in measure 14.

15

Vln. I

Vln. II

Vla.

Vc.

Detailed description: This system contains measures 15, 16, and 17. The first violin part (Vln. I) has a melodic line with slurs and accidentals. The other instruments (Vln. II, Vla., Vc.) continue with their parts from the previous system. The time signature is 3/4.

18

Vln. I

Vln. II

Vla.

Vc.

21

Vln. I

mf

Vln. II

mf

Vla.

mf

Vc.

mf

24

Vln. I

> mp

Vln. II

mp

Vla.

mp

Vc.

mp

27

Vln. I

Vln. II

Vla.

Vc.

mf

30

Vln. I

Vln. II

Vla.

Vc.

$\frac{5}{4}$

32

Vln. I

Vln. II

Vla.

Vc.

f

34

Vln. I

Vln. II

Vla.

Vc.

35

Vln. I

Vln. II

Vla.

Vc.

> mf

> mf

> mf

> mf

37

B

Vln. I

Vln. II

Vla.

Vc.

pp

pp

pp

p

40

Vln. I

Vln. II

Vla.

Vc.

43

Vln. I

Vln. II

Vla.

Vc.

46

Vln. I

Vln. II

Vla.

Vc.

48

Vln. I

Vln. II

Vla.

Vc.

5/4

50

Vln. I

mp

Vln. II

mp

Vla.

mp

Vc.

mp

5/4

51

Vln. I

Vln. II

Vla.

Vc.

5/4

52

Vln. I

Vln. II

Vla.

Vc.

f

f

f

f

Detailed description: This system contains measures 52 and 53. The music is in 3/4 time. Measures 52-53 feature a complex rhythmic pattern with frequent rests and accents. The dynamic marking *f* (forte) is present in all four staves. The key signature has one flat (B-flat).

54

Vln. I

Vln. II

Vla.

Vc.

mp

mp

mp

mp

Detailed description: This system contains measures 54 and 55. The music is in 3/4 time. Measures 54-55 feature a complex rhythmic pattern with frequent rests and accents. The dynamic marking *mp* (mezzo-piano) is present in all four staves. The key signature has one flat (B-flat).

57

Vln. I

Vln. II

Vla.

Vc.

Detailed description: This system contains measures 57 and 58. The music is in 3/4 time. Measures 57-58 feature a complex rhythmic pattern with frequent rests and accents. The dynamic marking is not explicitly shown in this system. The key signature has one flat (B-flat).

59

Vln. I

Vln. II

Vla.

Vc.

Musical score for measures 59-60. Vln. I has a whole rest. Vln. II, Vla., and Vc. have eighth-note patterns. Vc. has a 4-measure rest in the second measure.

61

Vln. I

Vln. II

Vla.

Vc.

mf

mf

mf

mf

Musical score for measures 61-62. All instruments play eighth-note patterns with accents. Dynamics are marked *mf*.

63

Vln. I

Vln. II

Vla.

Vc.

f

f

f

f

Musical score for measures 63-64. Vln. I and Vln. II have accents. Dynamics are marked *f*. Time signature changes to 5/4.

65

Vln. I

Vln. II

Vla.

Vc.

66

Vln. I

Vln. II

Vla.

Vc.

67

Vln. I

Vln. II

Vla.

Vc.

mf

mf

mf

mf

69

Vln. I

Vln. II

Vla.

Vc.

71

Vln. I

Vln. II

Vla.

Vc.

75

C

8^{va}

Vln. I

Vln. II

Vla.

Vc.

> p

> p

> p

> p

8^{va}

78 (8)

Vln. I

Vln. II

80 (8)

Vln. I

Vln. II

82 (8)

Vln. I

Vln. II

84 (8)

Vln. I

Vln. II

86 (8)

Vln. I

Vln. II

Vla.

mp

mp

mp

89

Vln. I

Vln. II

Vla.

Vc.

91

Vln. I

Vln. II

Vla.

Vc.

93

Vln. I

Vln. II

Vla.

Vc.

94

Vln. I *mp*

Vln. II *mp*

Vla. *mp*

Vc. *mp*

Detailed description: This system contains measures 94 and 95. The time signature is 5/4. The key signature has one flat (B-flat). The first violin (Vln. I) and second violin (Vln. II) parts feature a rhythmic pattern of eighth notes with accents. The viola (Vla.) part has a similar eighth-note pattern with some chromaticism. The cello (Vc.) part consists of a few quarter notes with accents. The dynamic marking *mp* is present for all parts.

95

Vln. I

Vln. II

Vla.

Vc.

Detailed description: This system contains measures 96 and 97. The time signature is 5/4. The key signature has one flat (B-flat). The first violin (Vln. I) part continues with eighth notes and accents. The second violin (Vln. II) part features a more melodic line with slurs. The viola (Vla.) part continues with eighth notes and accents. The cello (Vc.) part continues with quarter notes and accents.

96

Vln. I

Vln. II

Vla.

Vc.

Detailed description: This system contains measures 98 and 99. The time signature is 5/4. The key signature has one flat (B-flat). The first violin (Vln. I) part continues with eighth notes and accents. The second violin (Vln. II) part continues with a melodic line and slurs. The viola (Vla.) part continues with eighth notes and accents. The cello (Vc.) part continues with quarter notes and accents.

97

Vln. I f

Vln. II f

Vla. f

Vc. f

100

Vln. I mp mf p

Vln. II mp mf p

Vla. mp mf p

Vc. mp mf p

103

Vln. I f

Vln. II f

Vla. f

Vc. f

105

Vln. I

Vln. II

Vla.

Vc.

p

106

Vln. I

Vln. II

Vla.

Vc.

107

Vln. I

Vln. II

Vla.

Vc.

f *mp*

D

109

Vln. I

Vln. II

Vla.

Vc.

pp

112

Vln. I

Vln. II

Vla.

Vc.

f

114

Vln. I

Vln. II

Vla.

Vc.

p

116

Vln. I

Vln. II

Vla.

Vc.

ff

f

ff

f

ff

f

118

Vln. I

Vln. II

Vla.

Vc.

mf

f

mf

f

mf

f

mf

f

120

Vln. I

Vln. II

Vla.

Vc.

mf

f

mf

f

mf

f

mf

f

122

Vln. I

Vln. II

Vla.

Vc.

123

Vln. I

Vln. II

Vla.

Vc.

ff

ff

ff

ff

125

Vln. I

Vln. II

Vla.

Vc.

f

f

f

f

A History Lesson

Choral piece with piano accompaniment

Instrumentation

Voices:

Soprano

Alto

Tenor

Bass

(One voice per part)

Piano

May - September 2009

A History Lesson

Kings
like golden gleams
made with a mirror on the wall.

A non-alcoholic pope,
knights without arms,
arms without knights.

The dead like so many strained noodles,
a pound of those fallen in battle,
two ounces of those who were executed,

several heads
like so many potatoes
shaken into a cap -

Geniuses conceived
by the mating of dates
are soaked up by the ceiling into infinity

to the sound of tinny thunder,
the rumble of bellies,
shouts of hurrah,

empires rise and fall
at a wave of the pointer,
the blood is blotted out-

And only one small boy,
who was not paying the least attention,
will ask
between two victorious wars:

And did it hurt in those days too?

Miroslav Holub

From the Czech (trans. George Theiner)

♩ = 60

A History Lesson

Poem by Miroslav Holub
(trans George Theiner)
Greg Felton 2009

A

mp

SOPRANO
Kings like golden gleams

mp

ALTO
Kings like golden gleams

mp

TENOR
Kings like golden gleams

mp

BASS
Kings like golden gleams

5 *p* *mp*

S. made with a mir-ror on the wall. A

p *mp*

A. mir-ror on the wall. A

p *mp*

T. a mir-ror on the wall. A

p *mp*

B. mir-ror on the wall. A

9

S. non al-co - ho-lic pope

A. non al-co ho-lic pope

T. non al - - co ho-lic pope

B. non al - - co ho-lic pope

12 *mf*

S. knights with out

A. knights with out

T. knights with out

B. knights with out

16 *> p*

S. arms arms with

A. arms arms with

T. arms arms with

B. arms arms with

B

20 *f* ♩=80

S. out knights

A. out knights

T. out knights

B. out knights

B ♩=80

Pno.

24

Pno.

$\text{♩} = 100$

28

Pno.

30

Pno.

C

32

$\text{♩} = 60$

p

S. The dead like

A.

T. *p* dead

B. *p* dead

Pno.

$\text{♩} = 60$

p

36

S. *so, so_ ma-ny_ strained noo - dles a*

A. *p so, so_ ma-ny_ strained noo - dles*

T. *so, so_ ma-ny strained noo - dles*

B. *so ma - ny strained noo - dles*

Pno.

40

S. *pound_ of those_ fal - len in ba - ttle two*

A.

T. *oh oh oh oh*

B. *oh oh oh oh*

Pno.

44

S. *mf*
oun-ces of those who were ex - e - cu - ted

A. *mf*
oun-ces of those ex - e - cu - ted

T. *mf*
8 oun-ces of those ex - e - cu - ted

B. *mf*
oun-ces of those ex - e - cu - ted

Pno. *p*
8va

48

S. *p*
se - ver - al heads like so ma - ny_ po - ta - toes

A. *p*
se - ver - al heads like so, so ma - ny_ po - ta - toes

T. *p*
8 se - ver - al heads like so ma - ny_ po - ta - toes

B. *p*
se - ver - al heads like so ma - ny_ po - ta - toes

Pno. *p*
(8)

53

p

D

S. *p* sha ken in-to a cap

A. *p* sha ken in-to a cap

T. *p* sha ken in-to a cap

B. *p* sha ken in-to a cap

Pno. **D**

Pno.

Pno.

(8) 3 15^{ma}

60 *ff*

ped. * *ped.* *

Pno.

62 15^{ma} *p*

63 (15) *8va*

Pno.

64 (8)

Pno.

65

Pno.

67 *♩=100*

Pno.

E
70 *mp*

S.
Ge - - - - - ni

A.
Ge - - - - - ni

73

S.
 - - - - u - - - -

A.
 - - - - u - - - -

76

S.
 - ses

A.
 - ses

79

S.
 Con - ceived by the mat-ing of dates

A.
 Con - ceived by the mat-ing of dates are

84

S.
 soaked up by the cei -

A.
 soaked up by the cei -

87

S.
 - ling in - - to

A.
 - ling in - to in -

90

S. *in - fi - ni - ty*

A. *fi - ni - ty*

T. *to the sound*

B. *to the sound*

Pno.

93

T. *of tin - ny*

B. *of tin - ny*

Pno.

96 *mf*

T. *8* thun - - - - - der the

B. thun - - - - - der the

Pno. *(8)*

8^{vb} | *8^{vb}* |

99 *f*

T. *8* rum-ble of bell-ies shouts of hur - rah *f*

B. rum-ble of bell-ies shouts of hur - rah

Pno. *8^{va}*

f

103 **F** rit. ♩=60 *f*

S. *f* em pires—

A. *f* em - pires—

T. *f* em - pires—

B. *f* em - pires—

Pno. *mp* *f*

106 *mp*

S. *mp* rise and fall at a

A. *mp* rise and fall

T. *mp* rise fall

B. *mp* rise and fall

Pno. *mp*

110

S. *ff* wave_ of the point - er, *p* the blood is blot - ted

A. *ff* wave_ of the point - er, _____

T. *ff* wave_ of the point - er, _____

B. *ff* wave_ of the point - er, _____

Pno. *pp*

G

115

S. out and on - ly one small boy, who was not

A. *p* ah

T. *p* ah

B. *p* ah

Pno.

118

S. pay - ing the least_ att - en - tion, _ will

A. ah ah

T. ah ah

B. ah ah

120

S. ask bet - ween two vic - tor i - ous wars and did it

A. ah ah and did it

T. ah ah and did it

B. ah ah and did it

H

123

S. *mp* *p* *mp*
 hurt in those days too? and did it hurt in those days

A. *mp* *p* *mp*
 hurt in those days too? and did it hurt in those days

T. *mp* *p* *mp*
 8 hurt in those days too? and did it hurt in those days

B. *mp* *p* *mp*
 hurt in those days too? and did it hurt in those days

126

S. *p* *mf* *p* *mf*
 too? and did it hurt in those days too? and did it

A. *p* *mf* *p* *mf*
 too? and did it hurt in those days too? and did it

T. *p* *mf* *p* *mf*
 8 too? and did it hurt in those days too? and did it

B. *p* *mf* *p* *mf*
 too? and did it hurt in those days too? and did it

129

S. *> mp* *mf*
 hurt in those days too? and did it

A. *> mp* *mf*
 hurt in those days too? and did it

T. *> mp* *mf*
 hurt in those days too? and did it

B. *> mp* *mf*
 hurt in those days too? and did it

131

S. *> p* *pp*
 hurt in those days too?

A. *> p* *pp*
 hurt in those days too?

T. *> p* *pp*
 hurt in those days too?

B. *> p* *pp*
 hurt in those days too?

FIN

Looking for Random Elephants

Music for the Jazz Trio *White Rocket*

Instrumentation

Trumpet in B^b

Piano

Drum kit

October - November 2009

Looking For Random Elephants

Greg Felton 2010

A ♩=100

Trumpet

p
8^{va}

Piano

pp

pp

Detailed description: This system contains the first four measures of the piece. The Trumpet part (top staff) is in 4/4 time with a key signature of one flat. It features a melodic line starting on G4, moving through A4, Bb4, and C5, with various rhythmic patterns including eighth and sixteenth notes. The Piano part (bottom two staves) is in the same key and time, providing harmonic support with sustained chords and moving bass lines. Dynamics include piano (*p*) for the trumpet and pianissimo (*pp*) for the piano.

3

Tpt.

(8)

Pno.

Detailed description: This system covers measures 5 through 8. The Trumpet part (top staff) begins with a triplet of eighth notes (G4, A4, Bb4) and continues with a melodic line. The Piano part (bottom two staves) continues with sustained chords and moving lines. A circled number '8' is placed above the piano part in measure 6, likely indicating an octave transposition.

5

Tpt.

(8)

Pno.

Detailed description: This system covers measures 9 through 12. The Trumpet part (top staff) continues its melodic development. The Piano part (bottom two staves) provides harmonic accompaniment. A circled number '8' is placed above the piano part in measure 10, indicating an octave transposition.

7

Tpt.

Pno.

9

Tpt.

Pno.

11

Tpt.

Pno.

13

Tpt.

Pno.

15

Tpt.

Pno.

17 **B**

Tpt.

Pno.

mp

19

Tpt.

Pno.

21

Tpt.

Pno.

23

Tpt.

Pno.

25 **C**

Tpt.

Pno.

Dr.

mf

mf

mp

27

Tpt.

Pno.

Dr.

(8)

29

Tpt.

Pno.

Dr.

31

Tpt.

Pno.

Dr.

33

D

Tpt.

Pno.

Dr.

35

Tpt.

Pno.

Dr.


37

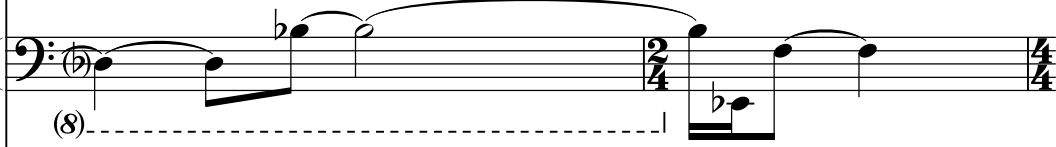
Tpt. 


Pno. 

Dr. 

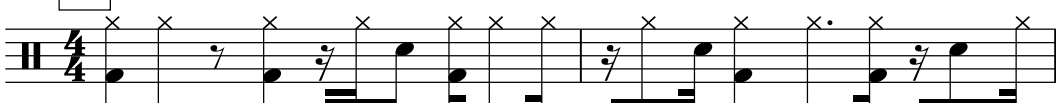
39

Tpt. 

Pno. 

Dr. 


41 **E**

Dr. 

43

Dr. 

46

Dr. 

49 **F**

Tpt. *f*

Pno. *f*

Dr. *f*

50

Tpt.

Pno.

Dr.

51

Tpt.

Pno.

Dr.

52

Tpt.

Pno.

Dr.

53

Tpt.

Pno.

Dr.

55

Tpt.

Pno.

Dr.

G

57

Pno.

58

Pno.

60

Pno.

61

Pno.

63

Pno.

H

65

Tpt. *mp*

Pno. *mp* *8vb*

Dr. *mp*

68

Tpt. *b*

Pno. (8)...

Dr.

70

Tpt. *p*

Pno. *p* *8vb*

Dr.

73

Tpt. *mp*

Pno. *mp* *8^{vb}* *mp* *8^{vb}*

Dr. *p*

76

Tpt. *f*

Pno. *mf*

79

Tpt. *mp*

Pno. *mp* *8^{vb}*

Dr. *mf* *mp*

83

Tpt.

Pno.

Dr.

86

Tpt.

Pno.

Dr.

89

Tpt.

Pno.

Dr.

92

Tpt.

Pno.

Dr.

8vb

8vb

8vb

x

95

Tpt.

Pno.

Dr.

f

8vb

mp

x

98

Tpt.

Dr.

8vb

x

100

Dr.

x

103 **I**

Pno.

f

f

105

Tpt.

Pno.

mf

mf

107

Tpt.

Pno.

mp

mp

110

Tpt.

Pno.

mf

mp

112

Tpt.

Pno.

f

mp

114

Tpt.

Pno.

mp

f

p

117

Tpt.

Pno.

mf

mf

120

Tpt.

Pno.

mf

122

Tpt.

Pno.

124

Tpt.

Pno.

mp

126

Tpt.

Pno.

mp

128

Tpt.

131

Tpt.

Pno.

mf

mf

8va

133

Tpt.

Pno.

(8)

135

Tpt.

Pno.

137

Tpt.

Pno.

138

Tpt.

Pno.

mp

140

Tpt.

Pno.

mf

mp

Musical score for measures 140. The trumpet part (Tpt.) has a whole rest followed by a melodic line starting on measure 140. The piano part (Pno.) consists of two staves with a complex rhythmic accompaniment. Dynamics include *mf* and *mp*.

141

Tpt.

Pno.

Musical score for measures 141. The trumpet part (Tpt.) has a melodic line. The piano part (Pno.) consists of two staves with a complex rhythmic accompaniment.

142

Tpt.

Pno.

Musical score for measures 142. The trumpet part (Tpt.) has a melodic line. The piano part (Pno.) consists of two staves with a complex rhythmic accompaniment.

144

Tpt.

Pno.

145

Tpt.

Pno.

147

Tpt.

Pno.

mf

f

mf

149

Tpt.

Pno.

150

Tpt.

Pno.

151

Tpt.

Pno.

152

Tpt.

Pno.

153 **J**

Tpt.

Pno.

Dr.

ff

154

Tpt.

Pno.

Dr.

156

Tpt.

Pno.

Dr.

157

Musical score for measures 157-160. The Tpt. part features a melodic line with a long slur over measures 157-160. The Pno. part consists of two staves with chords and moving lines. The Dr. part shows a rhythmic pattern with 'x' marks for cymbals and a steady bass line.

158

Musical score for measures 158-161. The Tpt. part has a melodic line with a slur over measures 158-161. The Pno. part continues with chords and moving lines. The Dr. part maintains the rhythmic pattern with 'x' marks for cymbals.

159

Musical score for measures 159-162. The Tpt. part has a melodic line with a slur over measures 159-162. The Pno. part continues with chords and moving lines. The Dr. part maintains the rhythmic pattern with 'x' marks for cymbals. The score ends with a double bar line and repeat signs.

161 **K**

Tpt.

Pno.

Dr.

162

Tpt.

Pno.

Dr.

164

Tpt.

Pno.

Dr.

165

Tpt.

Pno.

Dr.

166

Tpt.

Pno.

Dr.

167

Tpt.

Pno.

Dr.

L

169

Pno.

Dr.

170

Pno.

Dr.

171

Pno.

Dr.

172

Pno.

Dr.

174

Pno.

Dr.

176

Pno.

Dr.

178

Pno.

180

Pno.

181

Pno.

Dr.

Becoming Four

Music for orchestra

Instrumentation

2 Flutes

2 Oboes

2 Clarinets in B^b

2 Bassoons

2 Horns in F

2 Trumpets in B^b

2 Trombones

Tuba

Percussion

(Timpani

Tenor drum

Triangle

Bongos

Congas

Wood block)

Piano

Strings

January - March 2010

Becoming Four

Greg Felton 2010

A
♩ = 80

Timpani *pp*

Violas *p*

Violoncellos *p*

Contrabasses *p*

10

Timp.

Vln. I *mp*

Vln. II *p* *mp*

Vla. *mp*

Vc. *mp*

Cb. *mp*

B

20

Bsn. *mp*

Vln. I *mp*

Vln. II *mp*

Vla. *mp*

Vc. *mp*

Cb. *mp*

28

Cl. *mf*

Bsn.

Pno. *p*

Vln. I *marcato*

Vln. II *marcato*

Vla. *marcato*

Vc. *mf*
pizz

Cb. *mf*
pizz

sim

sim

sim



34

Cl.

Bsn.

Pno.

Vln. I

Vln. II

Vla.

Vc. *arco*

Cb. *arco*

72

Cl.

Hn. 1

Hn. 2

Pno.

Vln. I

Vln. II

Vla.

Vc.

Cb.

div.

Detailed description of the musical score: The score is for measures 72 through 76. It features eight staves: Clarinet (Cl.), Horn 1 (Hn. 1), Horn 2 (Hn. 2), Piano (Pno.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), and Violoncello (Vc.). The Cello (Cb.) staff is at the bottom. The key signature is B-flat major (two flats). The time signature changes from 2/4 to 3/4 at measure 73. The Clarinet part has a melodic line with slurs and accents. The Horns and Piano provide harmonic support. The Violins and Viola play sustained notes with some movement. The Cello and Violoncello play a steady bass line. A 'div.' (divisi) marking appears in the Cello staff at measure 75.

78

Fl.

Cl.

Hn. 1

Hn. 2

Tpt. 1

Tbn. 1

Tbn. 2

Tba.

Pno.

Vln. I

Vln. II

Vla.

Vc.

Cb.

mf

f

normale

84

Fl.

Cl.

Hn. 1

Hn. 2

Tpt. 1

Tpt. 2

Tbn. 1

Tbn. 2

Tba.

Vln. I

Vln. II

Vla.

Vc.

Cb.

normale

88

Fl. 1

Fl. 2

Cl. 1

Cl. 2

Hn. 1

Hn. 2

Tpt. 1

Tpt. 2

Tbn. 1

Tbn. 2

Tba.

Pno.

Vln. I

Vln. II

Vla.

Vc.

Cb.

f

f

91

Fl. *p*

Cl. *p*

Hn. 1 *p*

Hn. 2 *p*

Tpt. 1 *p*

Tpt. 2 *p*

Tbn. 1 *p*

Tbn. 2 *p*

Tba. *p*

Pno.

Vln. I

Vln. II

Vla.

Vc.

Cb.

97 E ♩=90

Cl.
Hn. 1
Hn. 2
Tpt. 1
Tbn. 1
Tbn. 2
Tba.
Congas



103

Ob. 1
Cl.
Bongos
Congas



109

Fl.
Ob. 1
Bongos

114

Fl.

Ten. Dm

Bongos

Vln. I

Vln. II

Vla.

Vc.



119

Tpt. I

Ten. Dm

Triangle

Bongos

Congas

Vln. I

Vln. II

Vla.

Vc.

Cb.

124

Ob. 1

Cl.

Bsn.

Tbn. 1

Tba.

Bongos

Congas

W.B.

Vln. I

Vln. II

Vla.

Vc.

Cb.

128

Tpt. 1

Tpt. 2

Tbn. 1

Tba.

Timp.

Bongos

Congas

Pno.

Vln. I

Vln. II

Vla.

Vc.

Cb.

133

Fl.

Ob. 1

Cl.

Tpt. 1

Tbn. 1

Tbn. 2

Tba.

Timp.

Bongos

Congas

W.B.

Pno.

Vln. I

Vln. II

Vla.

Vc. *div.*

Cb.

Detailed description: This page of a musical score, numbered 133, contains 14 staves. The top staves are for woodwinds and brass: Flute (Fl.), Oboe 1 (Ob. 1), Clarinet (Cl.), Trumpet 1 (Tpt. 1), Trombone 1 (Tbn. 1), Trombone 2 (Tbn. 2), and Tuba (Tba.). The middle staves are for percussion: Timpani (Timp.), Bongos, Congas, and Wood Block (W.B.). The bottom staves are for strings: Piano (Pno.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), and Contrabass (Cb.). The score is in a key signature of two flats (B-flat and E-flat) and a 2/4 time signature. It features complex rhythmic patterns, including triplets and sixteenth-note runs, and dynamic markings such as accents and slurs. The piece concludes with a double bar line at the end of the fourth measure.

137

Fl.

Ob. 1

Cl.

Cl. 2

Hn. 1

Hn. 2

Tpt. 1

Tbn. 1

Tba.

Perc.

Pno.

Vln. I

Vln. II

Vla.

Vc.

Cb.

div.

3

3

3

3

142

Fl. 1

Fl. 2

Cl. 1

Cl. 2

Bsn. 1

Bsn. 2

Hn. 1

Hn. 2

Tpt. 1

Tpt. 2

Tbn. 1

Tbn. 2

Tba.

Perc.

Pno.

Vln. I

Vln. II

Vla.

Vc.

Cb.

ff

ff

ff

ff

ff

148

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bsn. 1

Bsn. 2

Hn. 1

Hn. 2

Tpt. 1

Tpt. 2

Tbn. 1

Tbn. 2

Tba.

Perc.

Pno.

Vln. I

Vln. II

Vla.

Vc.

Cb.

(8)

150

Fl. 1

Fl. 2

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Bsn. 1

Bsn. 2

Hn. 1

Hn. 2

Tpt. 1

Tpt. 2

Tbn. 1

Tbn. 2

Tba.

Perc.

Vln. I

Vln. II

Vla.

Vc.

Cb.

f

rit.

mp

8^{va}

F

153 $\text{♩} = 85$

Fl. 1 *mp*

Fl. 2 *mp*

Ob. 1 *mp*

Ob. 2 *mp*

Cl. 1 *mp*

Cl. 2 *mp*

Hn. 1 *mp*

Hn. 2 *mp*

Tbn. 1 *mp*

Tbn. 2 *mp*

Vln. I *mp*

Vln. II *mp*

F

$\text{♩} = 85$

158

Fl. 1

Fl. 2

Ob. 2

Cl. 1

Cl. 2

Bsn. 1 *mp*

Bsn. 2

pp

4

4

4

162 $\text{♩} = 80$

Fl. 1
Fl. 2
Cl. 1
Cl. 2
Bsn. 1
Bsn. 2



167

Fl. 1
Cl. 1
Cl. 2



171

Fl. 1
Cl. 1
Cl. 2
Bsn. 1



173

Fl. 1
Cl. 1
Bsn. 1

174

Fl. 1

Fl. 2

Cl.

Bsn.

Hn. 1

Hn. 2

Tbn. 1

Tba.

p



175

Fl. 1

Fl. 2

Cl.

Bsn.

Hn. 1

Hn. 2

Tbn. 1

Tba.

Pno.

mf

pp

177 **G**

Fl. 1 *f*

Fl. 2 *f*

Cl.

Bsn.

Hn. 1 *f*

Hn. 2 *f*

Tpt. 1 *mf*

Tbn. 1 *f*

Tba. *f*

Pno. *f*

Vln. I *f*

Vln. II *f*

Vla. *f*

Vc. *f*

Cb. *f*

179

Cl.

Hn. 1

Hn. 2

Tpt. 1

Tbn. 1

Tba.

Vln. I

Vln. II

Vla.

Vc.

Cb.

ff



181

Cl.

Hn. 1

Hn. 2

Tbn. 1

Tba.

Vln. I

Vln. II

Vla.

Vc.

Cb.

183 **H**

Fl.

Hn. 1

Hn. 2

Tpt. 1

Tpt. 2

Tbn. 1

Pno.

Vln. I

Vln. II

Vla.

Vc.

Cb.

191

Fl.

Ob. 1

Ob. 2

Cl. 1

Cl. 2

Hn. 2

Tpt. 1

Tpt. 2

Tbn. 1

Pno.

Vln. I

Vln. II

Vla.

Vc.

Cb.

4

p

pp

8^{va}

p

198

8^{va}

Fl.

Ob. 1

Ob. 2

Cl. 1

Cl. 2

pp

pp

pp

FIN

Shilimba Chant

Music for mixed sextet

Instrumentation

2 Marimbas

Vibraphone

2 Guitars

Acoustic bass

April - May 2010

Shilimba Chant

Greg Felton 2010

♩ = 110

A

Guitar 1 *mp*

5

Gtr.1

Gtr.2 *mp*

9

Gtr.1

Gtr.2

12

Gtr.1

Gtr.2

15

Gtr.1

Gtr.2

Mar.2 *mp*

18

Gtr.1

Gtr.2

Mar.2

21

Gtr.1

Gtr.2

Mar.2

24

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

mp

mp

mp

27

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

30

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

33

Gtr.1

Gtr.2

Mar.2

36

Gtr.1

Gtr.2

B

39

Gtr.2

42

Gtr.1

Gtr.2

45

Gtr.1

Gtr.2

48

Gtr.1

Gtr.2

Mar.2

51

Gtr.1

Gtr.2

Mar.2

54

Mar.1 *mf*

Vib. *mf*

Gtr.1 *mf*

Gtr.2 *mf*

Mar.2 *mf*

A. Bass *mf*

Detailed description: This musical system covers measures 54, 55, and 56. It features six staves: Mar.1 (Maracas 1), Vib. (Vibraphone), Gtr.1 (Guitar 1), Gtr.2 (Guitar 2), Mar.2 (Maracas 2), and A. Bass (Acoustic Bass). Mar.1 and Vib. play melodic lines with slurs and accents. Gtr.1 plays a rhythmic pattern of eighth notes with accents. Gtr.2 plays a continuous eighth-note accompaniment. Mar.2 plays a simple bass line with rests. A. Bass plays a melodic line with slurs and accents. The dynamic marking *mf* is present at the start of each staff.

57

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

Detailed description: This musical system covers measures 57, 58, and 59. It features the same six staves as the previous system. Mar.1 and Vib. continue their melodic lines. Gtr.1 maintains its rhythmic pattern. Gtr.2 continues its eighth-note accompaniment. Mar.2 plays its bass line. A. Bass plays its melodic line. The dynamic marking *mf* is not explicitly repeated on this page but is implied from the previous system.

60

Mar. 1

Vib.

Gtr. 1

Gtr. 2

Mar. 2

A. Bass

62

Mar. 1

Vib.

Gtr. 1

Gtr. 2

Mar. 2

A. Bass

65

Gtr. 1

Gtr. 2

Mar. 2

mp

C

68

Gtr.1 *mp*

Gtr.2 *mp*

Mar.2 *mp*

71

Gtr.1

Gtr.2 *mp*

74

Gtr.1

Gtr.2

A. Bass *mp*

77

Gtr.1

Gtr.2

A. Bass

80

Mar.1

Vib.

Gtr.1

Gtr.2

A. Bass

mp

mp

83

Mar.1

Vib.

Gtr.1

Gtr.2

A. Bass

86

Mar.1

Vib.

Gtr.1

Gtr.2

A. Bass

89

Mar.1

Vib.

Gtr.1

Gtr.2

A. Bass

91

Mar.1

Vib.

Gtr.1

Gtr.2

A. Bass

94

Mar.1

Vib.

Gtr.1

Gtr.2

A. Bass

mf

96

Mar.1

Vib.

Gtr.1

Gtr.2

A. Bass

98

Mar.1

Vib.

Gtr.1

Gtr.2

A. Bass

100

Mar.1

Vib.

Gtr.1

A. Bass

102

Mar.1

Vib.

Gtr.1

A. Bass

104

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

106

Mar.1

Vib.

Gtr.2

Mar.2

108

Mar.1

Vib.

Gtr.2

Mar.2

110

Mar.1

Vib.

Gtr.2

Mar.2

D

112

Mar.1

Vib.

Gtr.2

Mar.2

114

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

mp

mp

mp

mp

117

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

119

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

mp

mp

mp

mp

mp

mp

mp

122

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

124

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

126

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

mf

mf

mf

mf

mf

mf

129

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

131

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

133

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

f

f

f

f

f

f

135

Mar.1
Vib.
Gtr.1
Gtr.2
Mar.2
A. Bass

Detailed description: This musical score block covers measures 135 and 136. It features six staves: Mar.1, Vib., Gtr.1, Gtr.2, Mar.2, and A. Bass. Mar.1 and Vib. play a melodic line with eighth and sixteenth notes, including a sharp sign in measure 136. Gtr.1 and Gtr.2 play a rhythmic accompaniment of eighth notes. Mar.2 and A. Bass play a simple bass line with quarter notes.

137

Mar.1
Vib.
Gtr.1
Gtr.2
Mar.2
A. Bass

Detailed description: This musical score block covers measures 137 and 138. It features six staves: Mar.1, Vib., Gtr.1, Gtr.2, Mar.2, and A. Bass. Mar.1 and Vib. play a melodic line with eighth and sixteenth notes. Gtr.1 and Gtr.2 play a rhythmic accompaniment of eighth notes. Mar.2 and A. Bass play a simple bass line with quarter notes.

139

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

141

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

ff

ff

ff

ff

ff

144 **E**

Mar.1 *f*

Vib. *f*

Gtr.1 *f*

Gtr.2 *f*

Mar.2 *f*

A. Bass **E** *f*

147

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

150

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

mf

mf

mf

153

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

f

f

f

f

f

f

156

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

159

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

162

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

mf

mf

mf

mf

mf

mf

165

Mar.1

Vib.

Gtr.1

Gtr.2

Mar.2

A. Bass

mp

mp

mp

mp

mp

mp

168

Gtr.1

Gtr.2

Mar.2

pp

171

Gtr.1

Gtr.2

pp

175

Gtr.1

pp

FIN