

Durham E-Theses

Portfolio of compositions containing Symphony No. 104, From The Eumenides, Lost Words, String Quartet No. 2, String Quartet No. 3, 12 Miniatures, Non-Stable Equilibrium and a commentary on the compositions

EGAN, ERIC, SKYTTERHOLM

How to cite:

EGAN, ERIC, SKYTTERHOLM (2010) Portfolio of compositions containing Symphony No. 104, From The Eumenides, Lost Words, String Quartet No. 2, String Quartet No. 3, 12 Miniatures, Non-Stable Equilibrium and a commentary on the compositions, Durham theses, Durham University. Available at Durham E-Theses Online: http://etheses.dur.ac.uk/292/

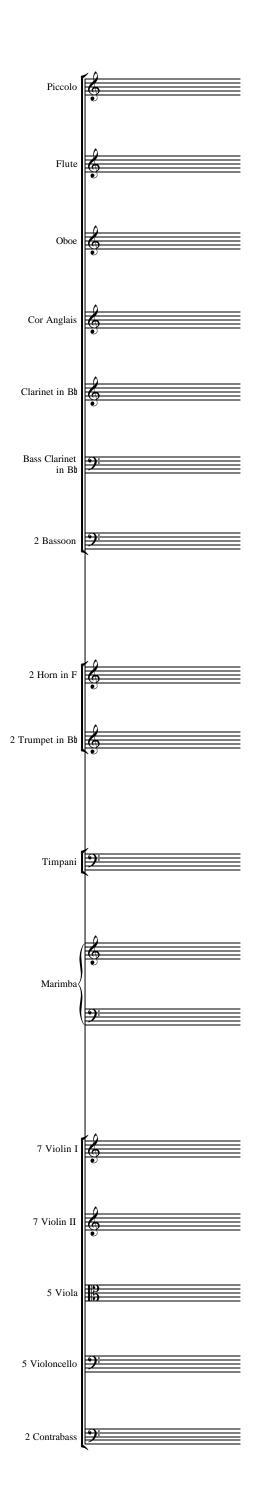
Use policy

The full-text may be used and/or reproduced, and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not-for-profit purposes provided that:

- a full bibliographic reference is made to the original source
- a link is made to the metadata record in Durham E-Theses
- the full-text is not changed in any way

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.

Please consult the full Durham E-Theses policy for further details.



Symphony No. 104

Eric Egan

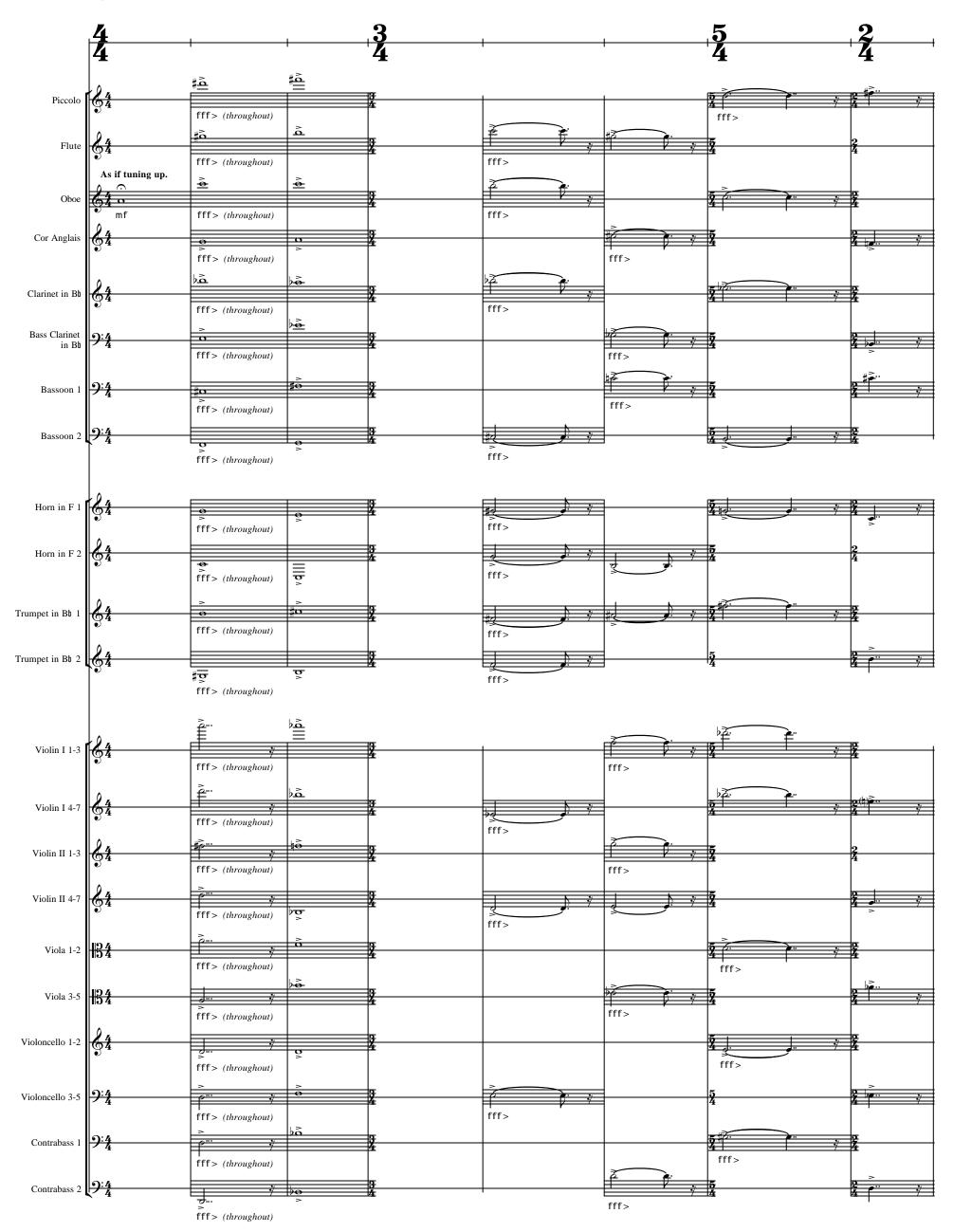
18 minutes

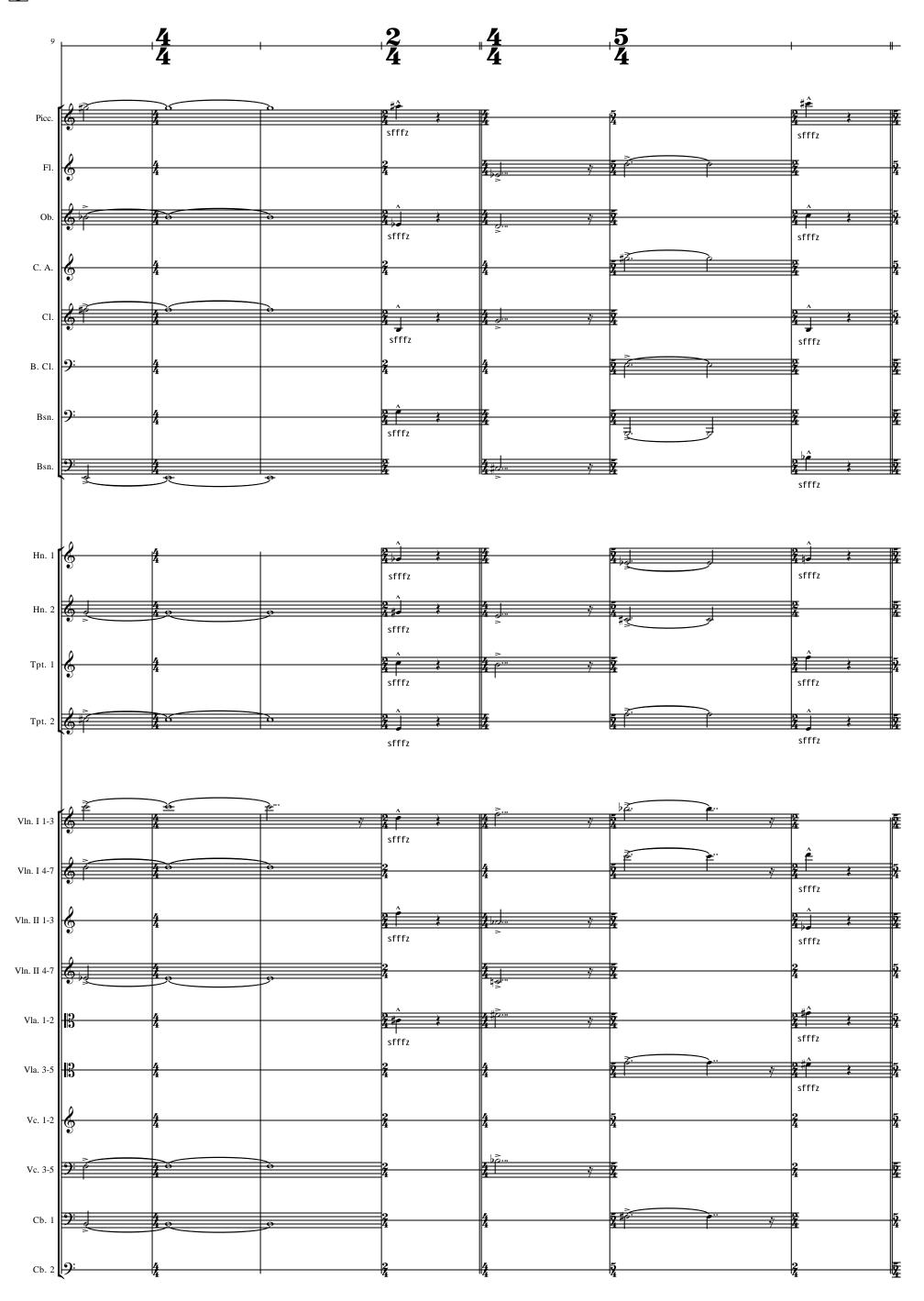
Symphony No. 104

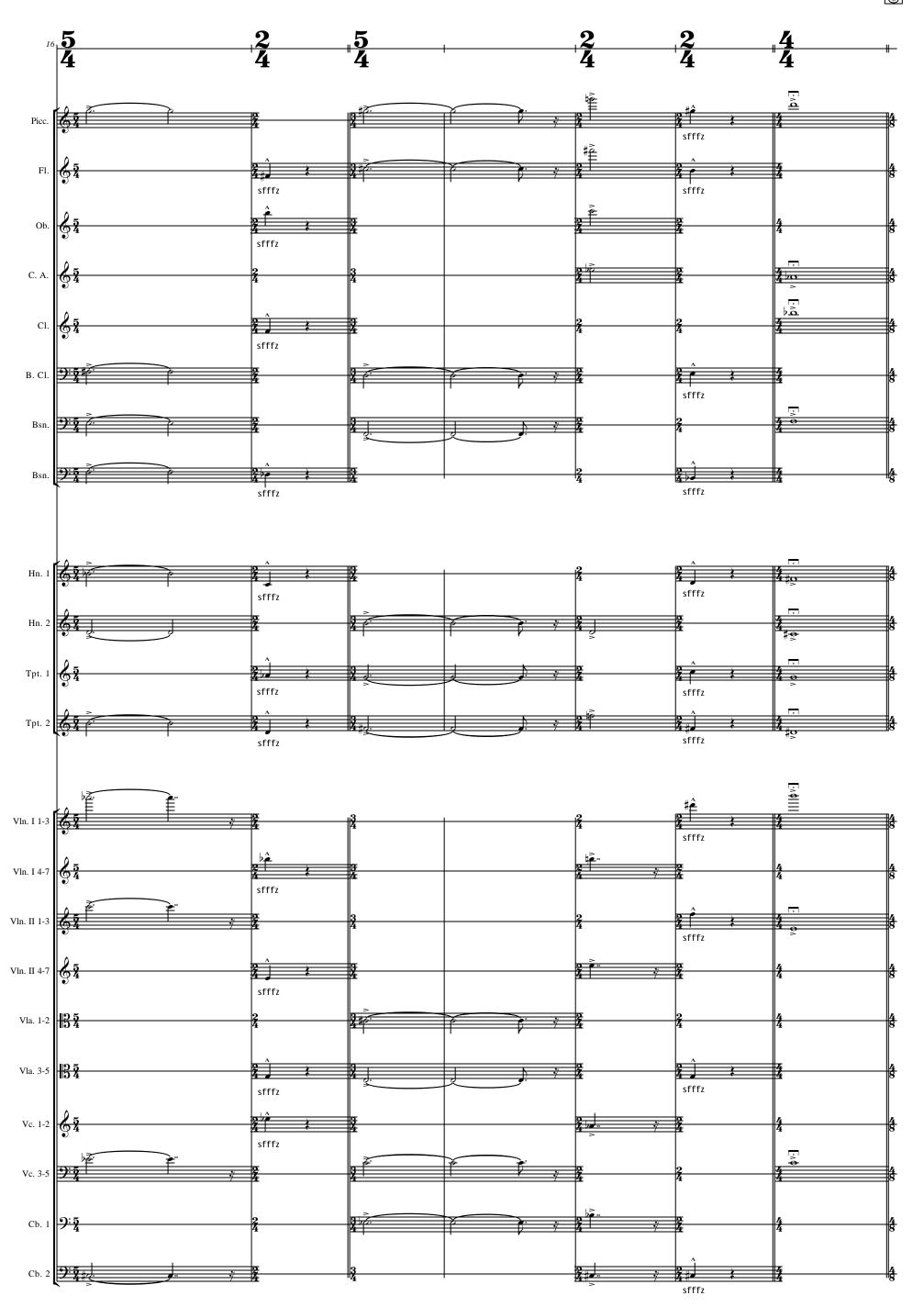
Premiered by DUOS on 04/02-07, Matthew Taylor conducting.

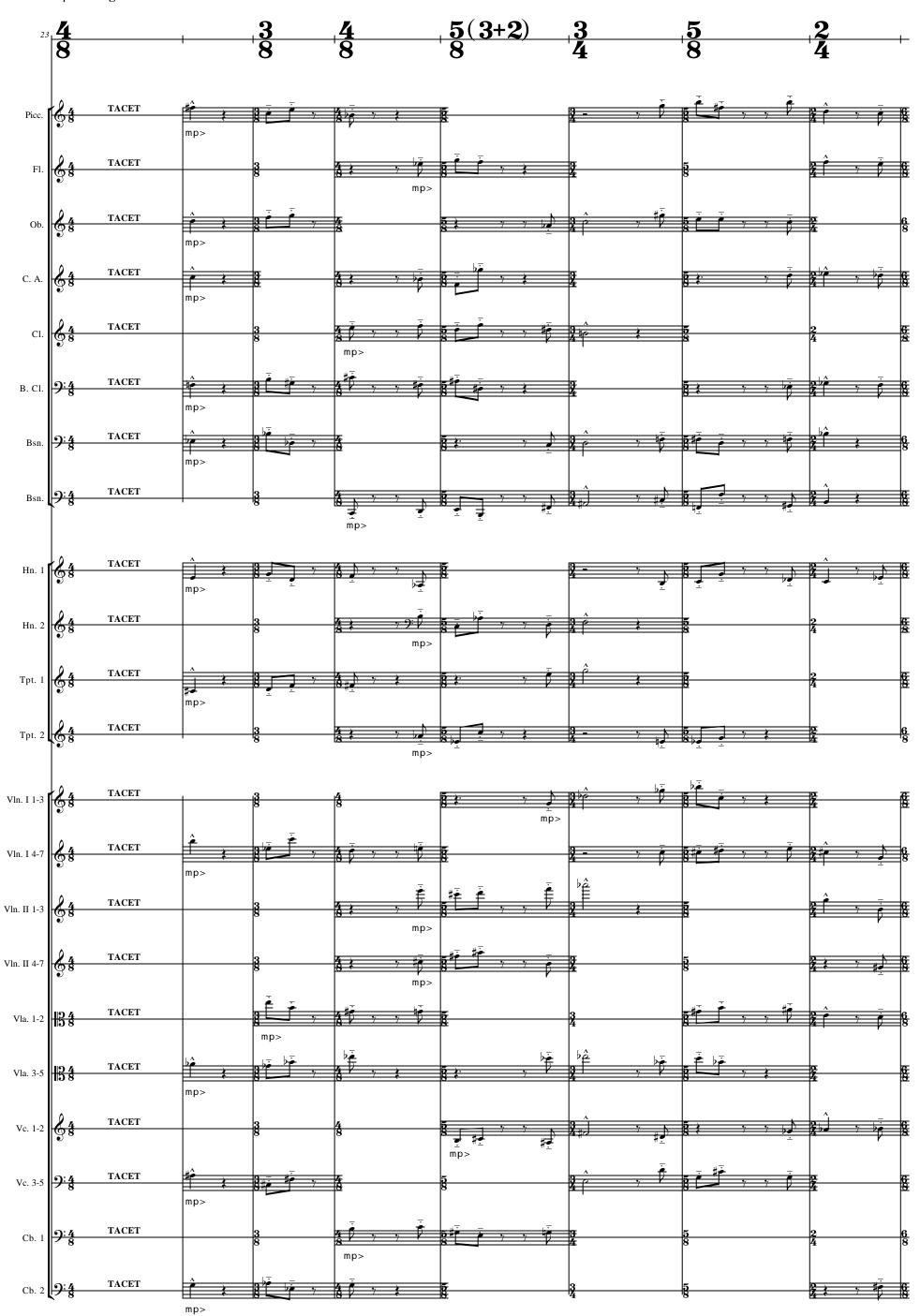
Full Score Movement I Eric Egan

q=86 Extremely Intense Throughout

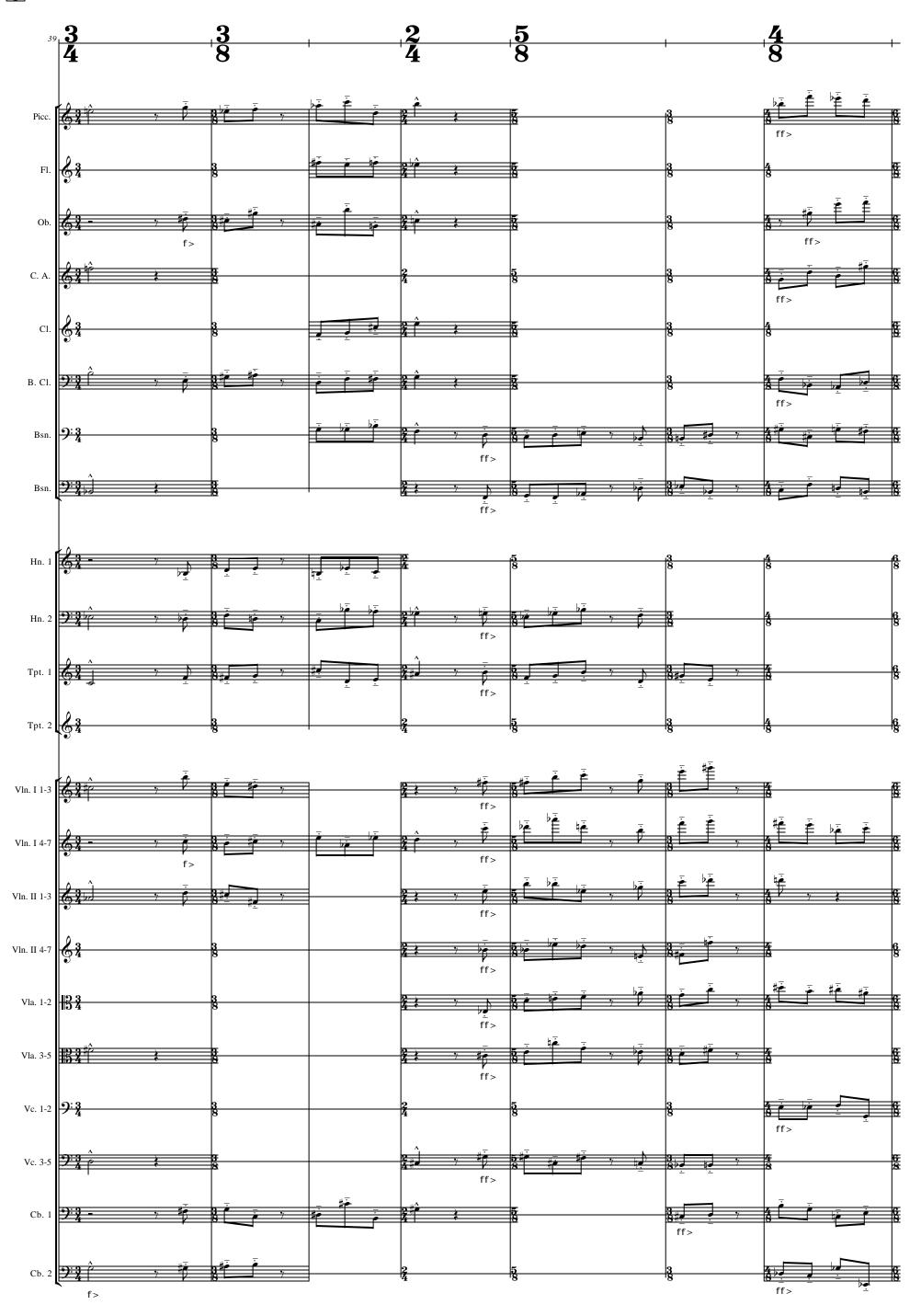


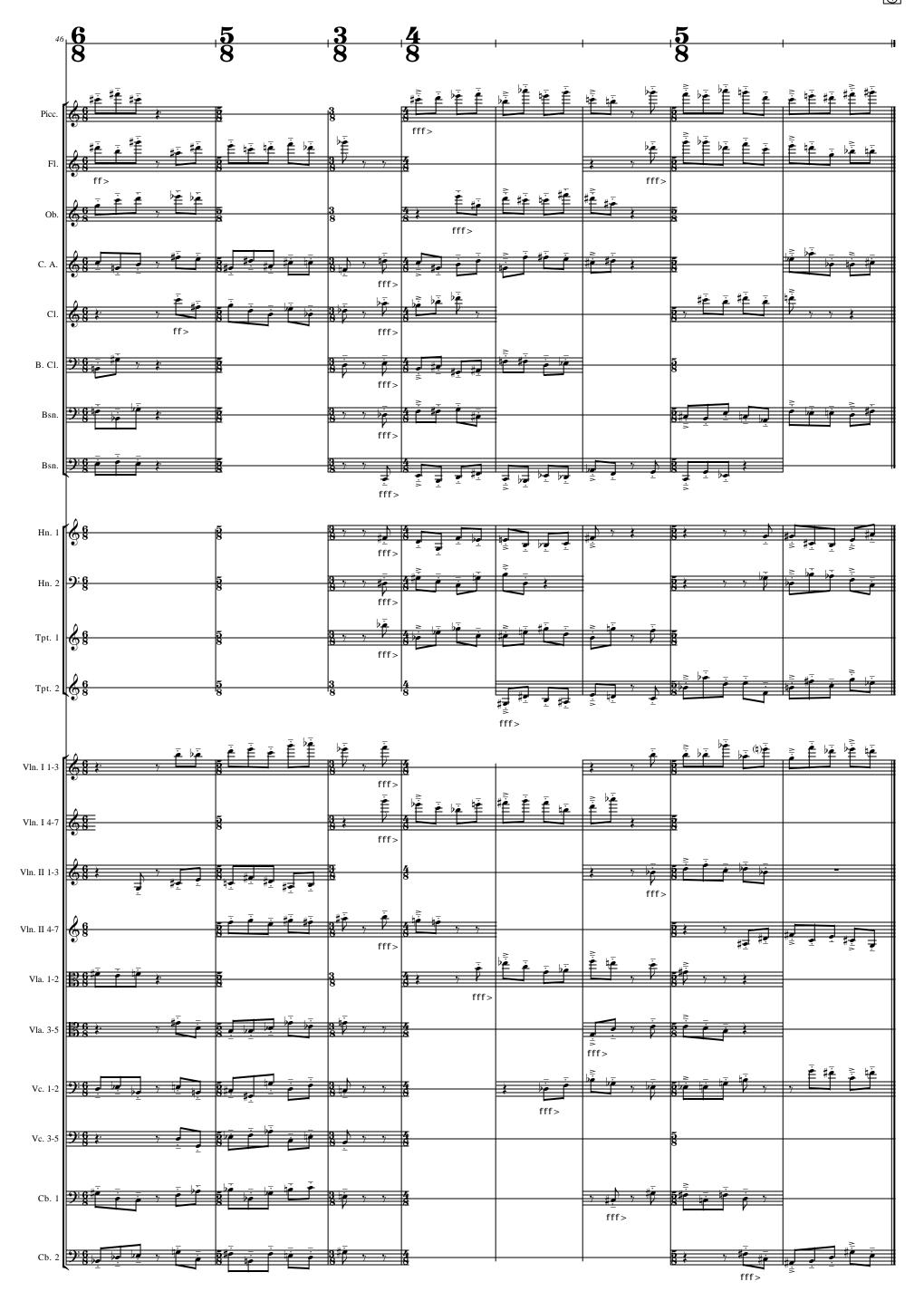




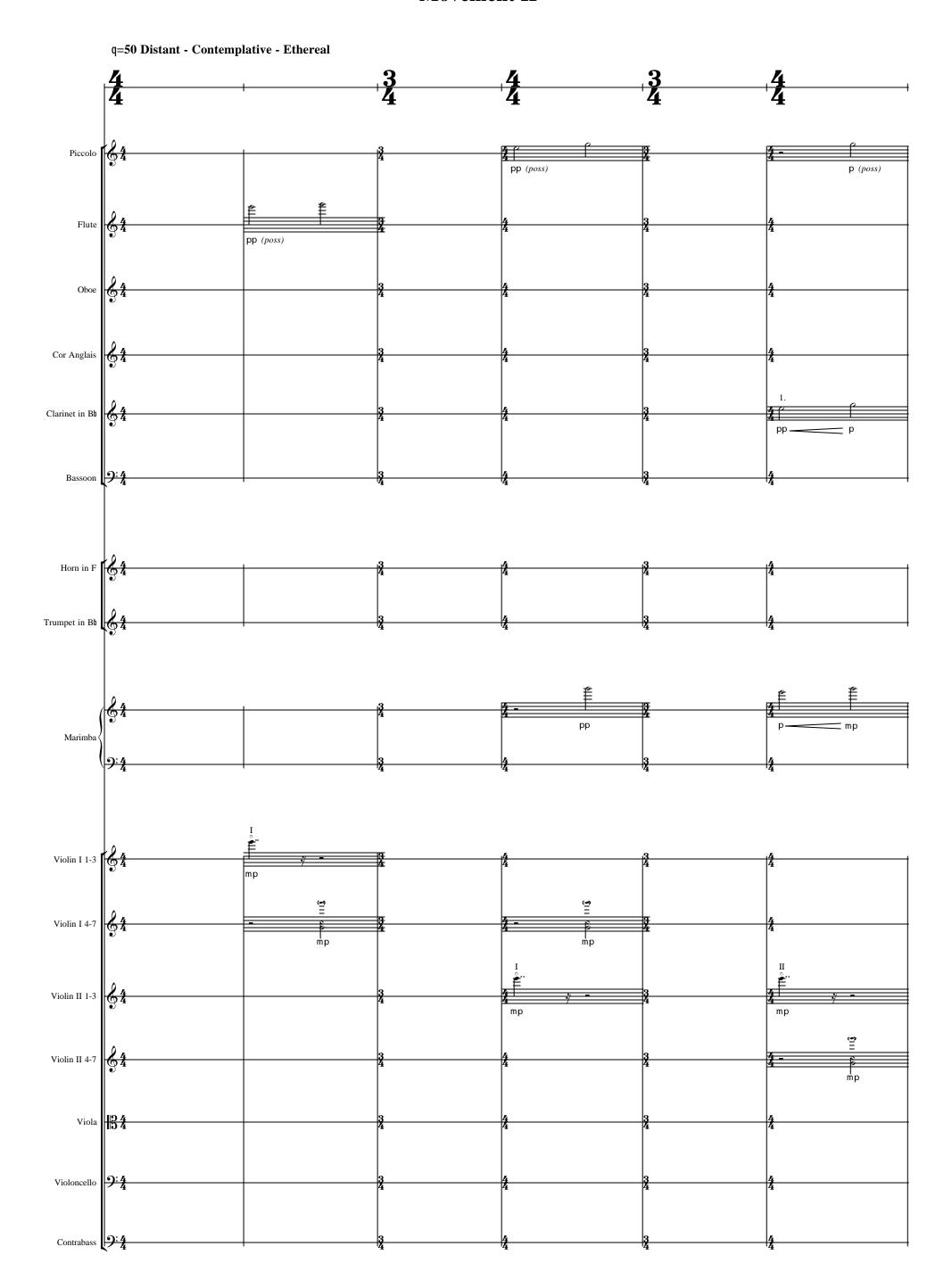


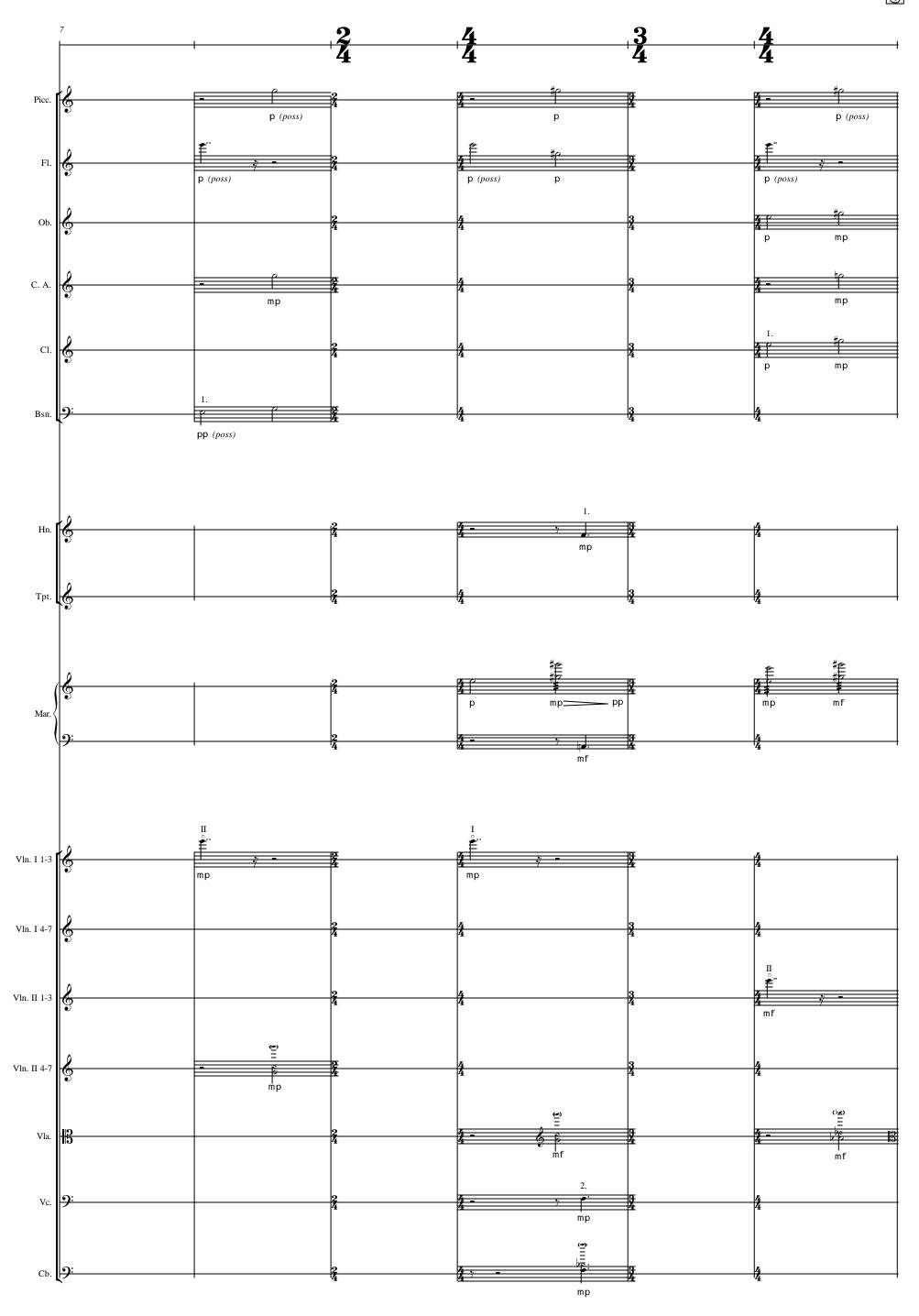


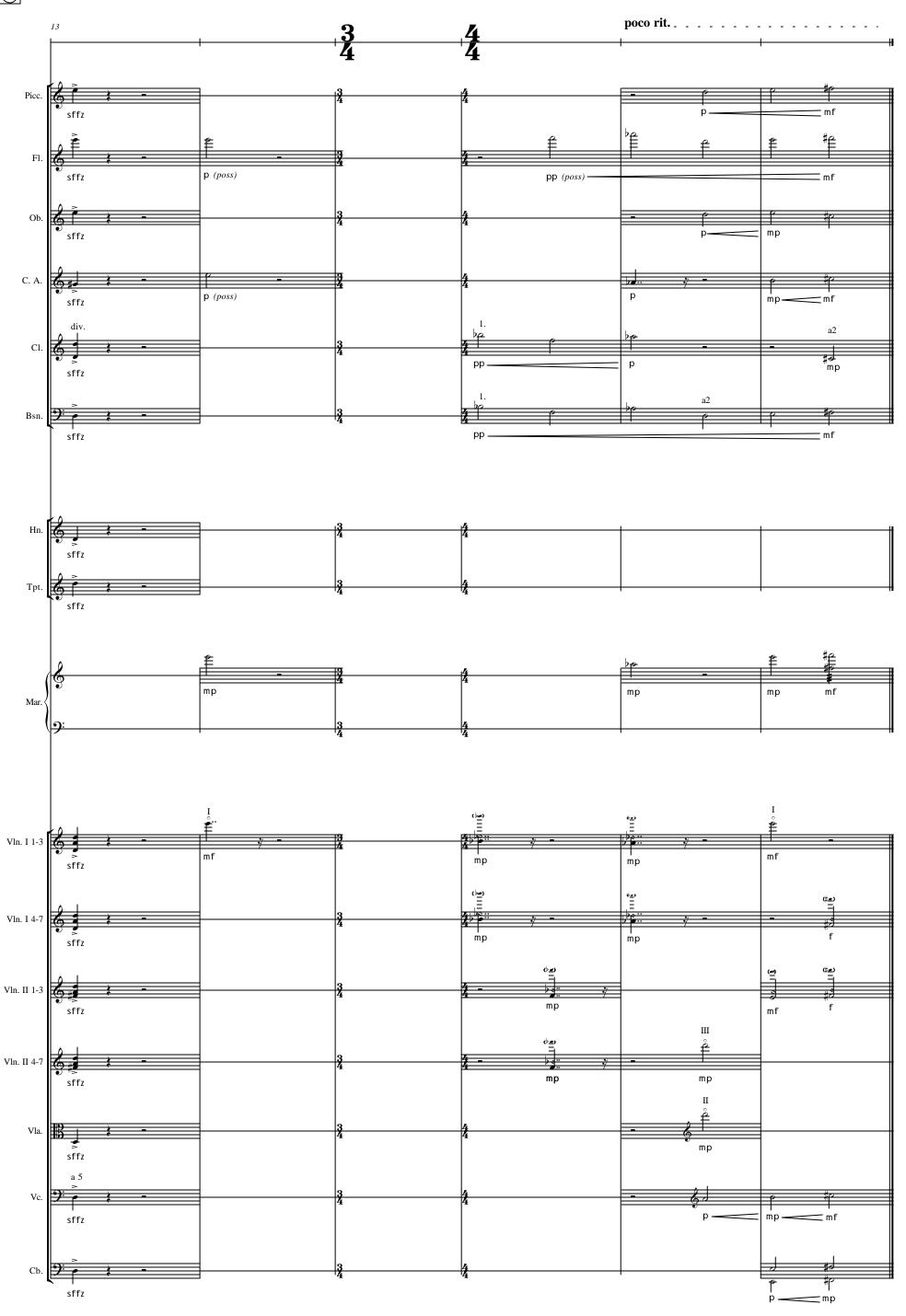


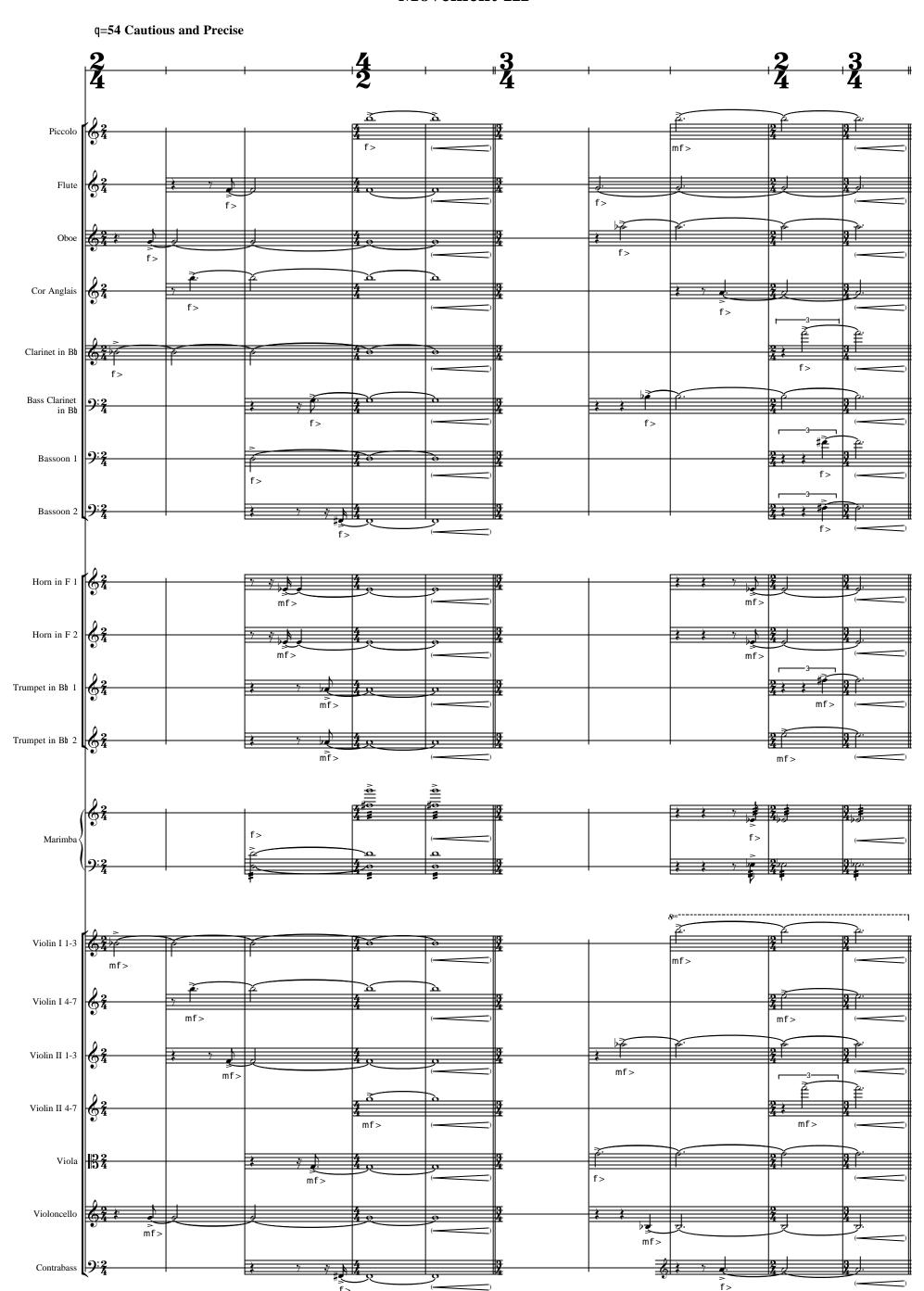


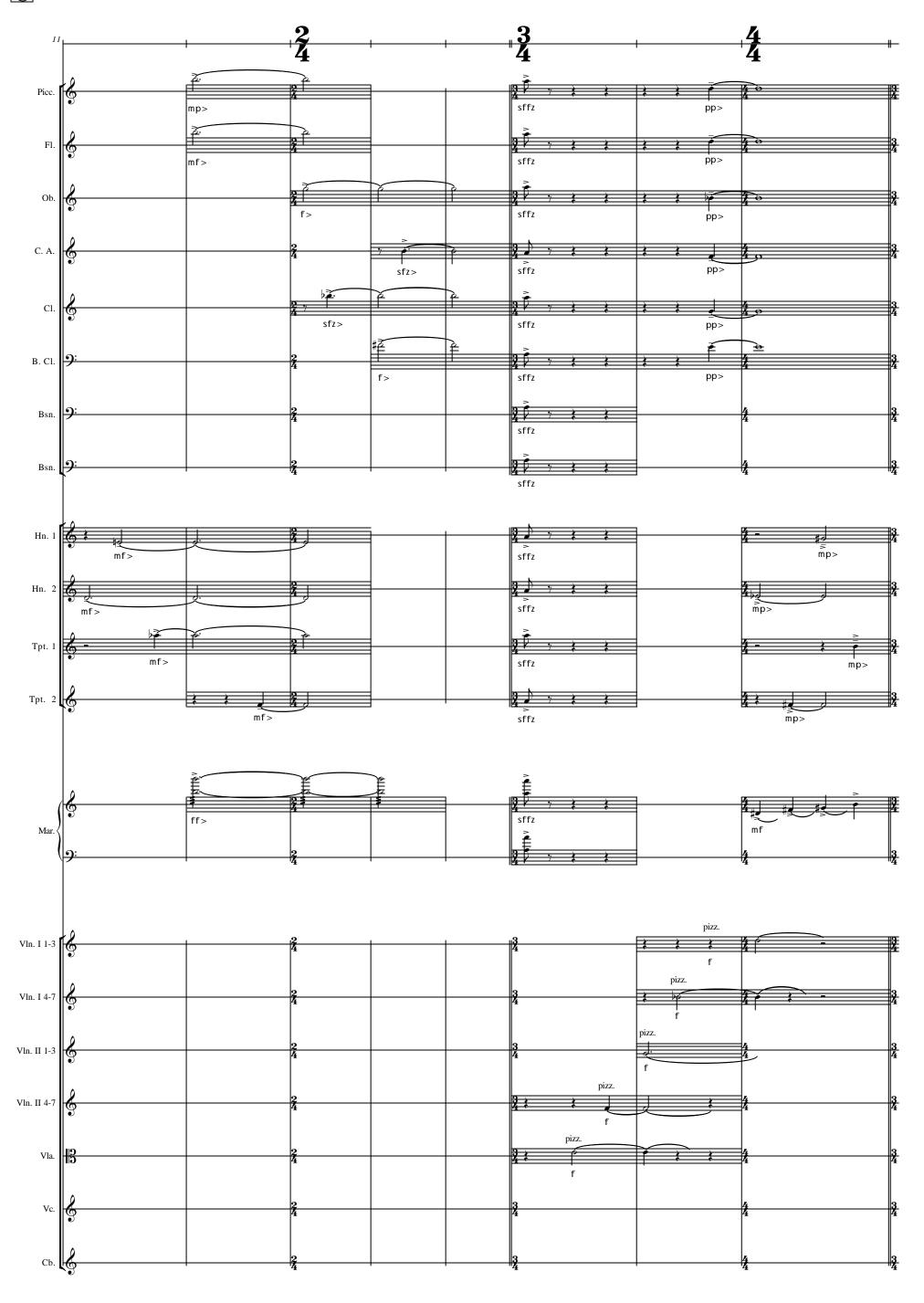
Movement II

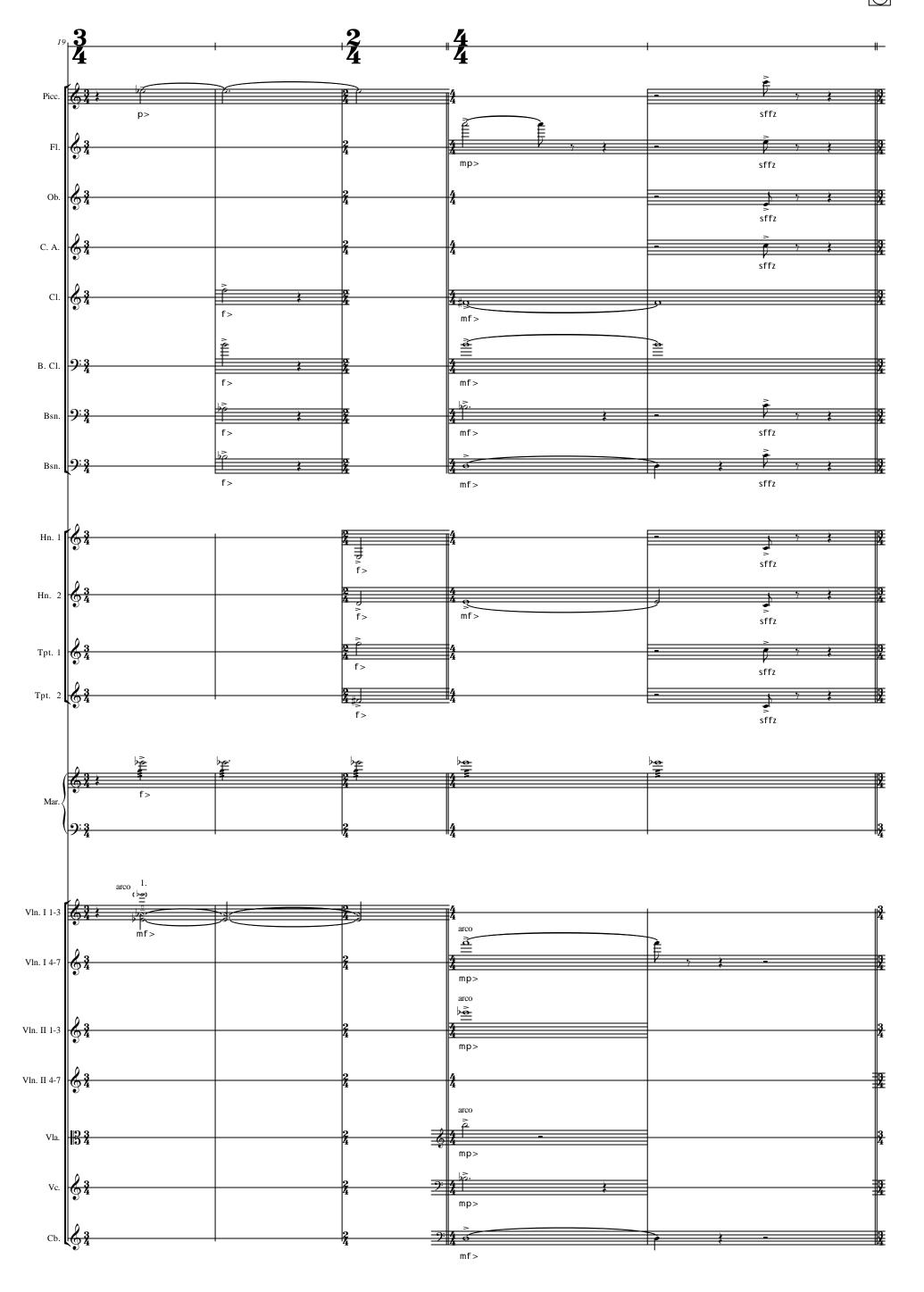


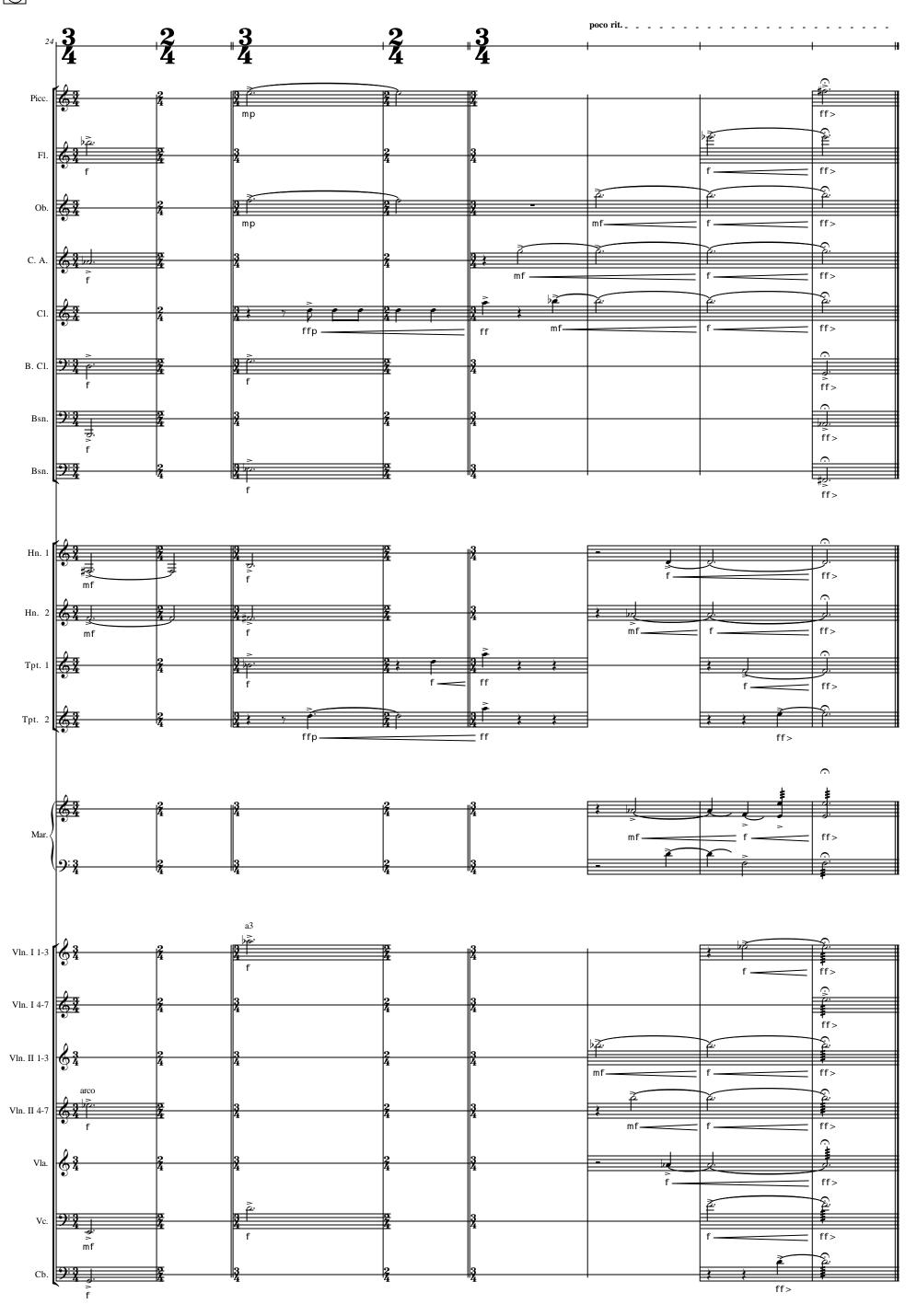




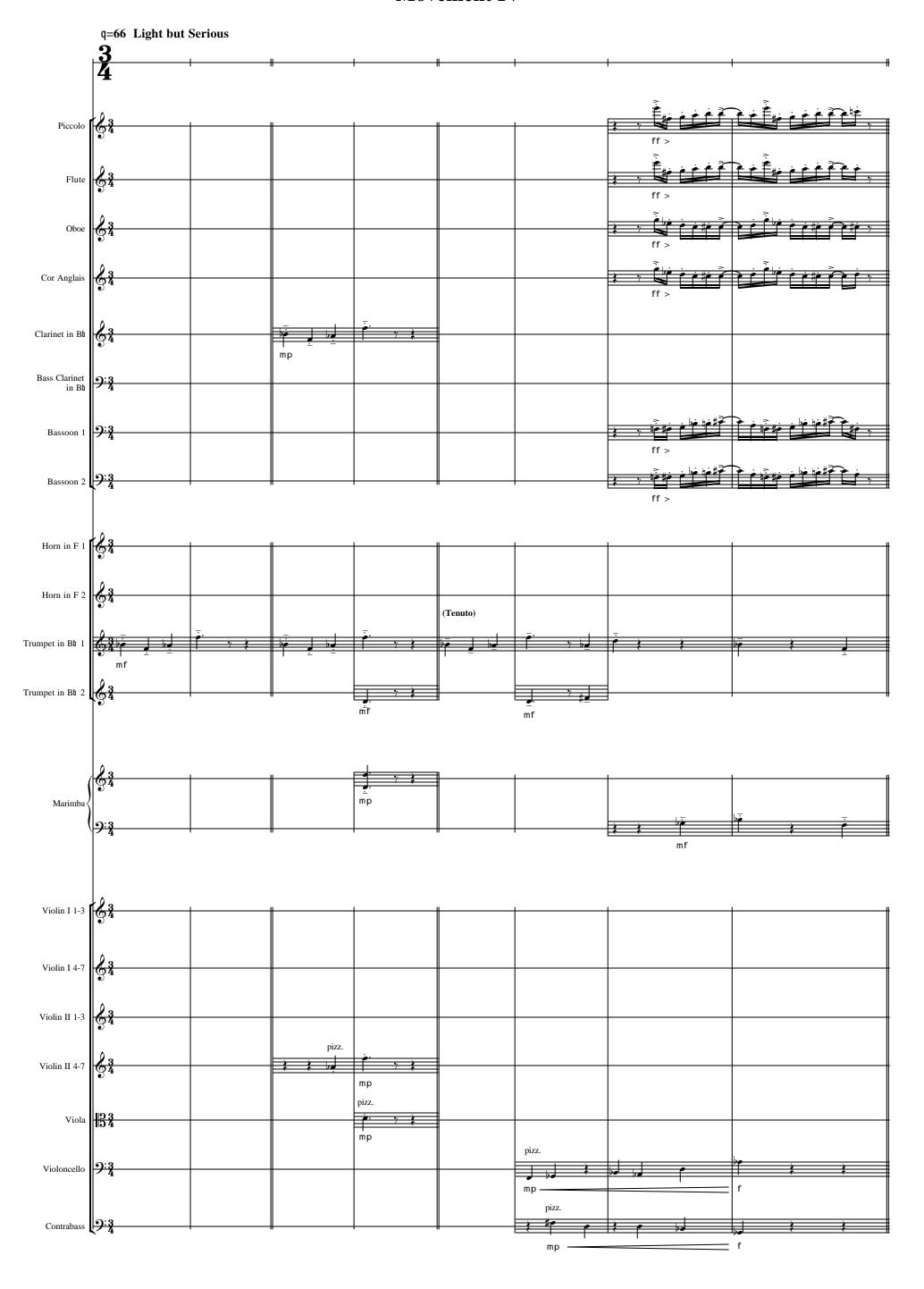


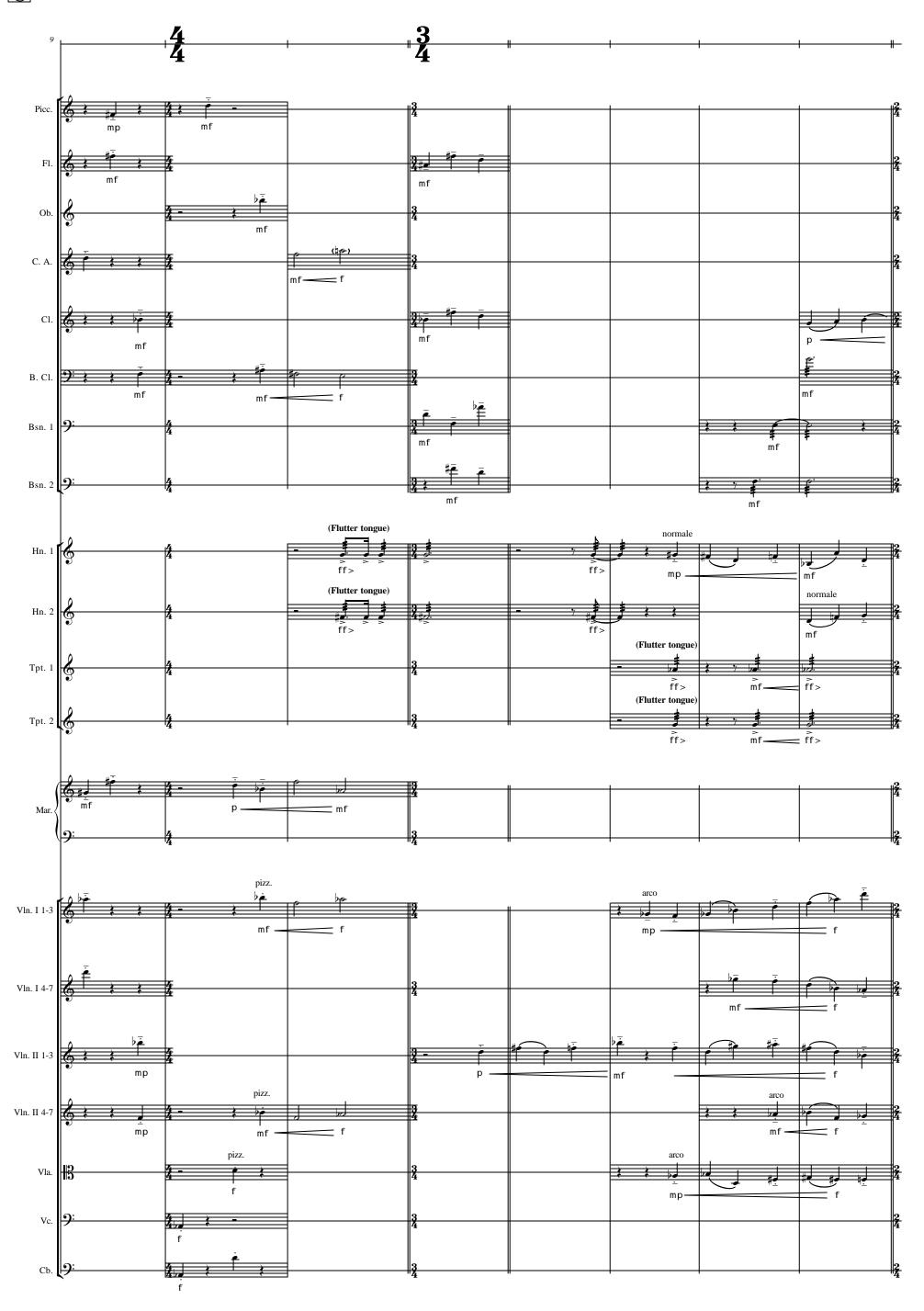


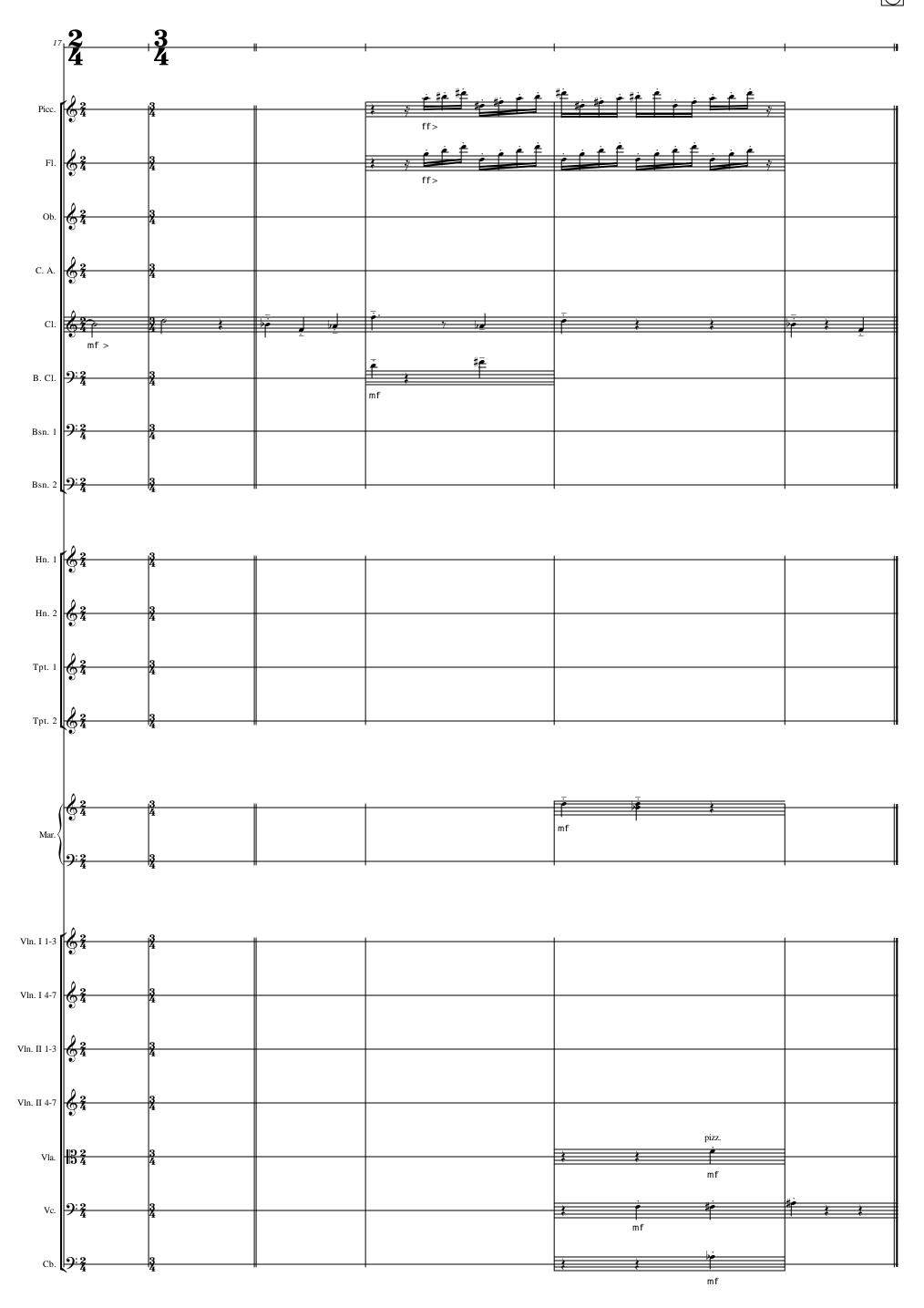




Movement IV







Movement V

q=52 'Stasis' with Solistic Gestures Breaking Out

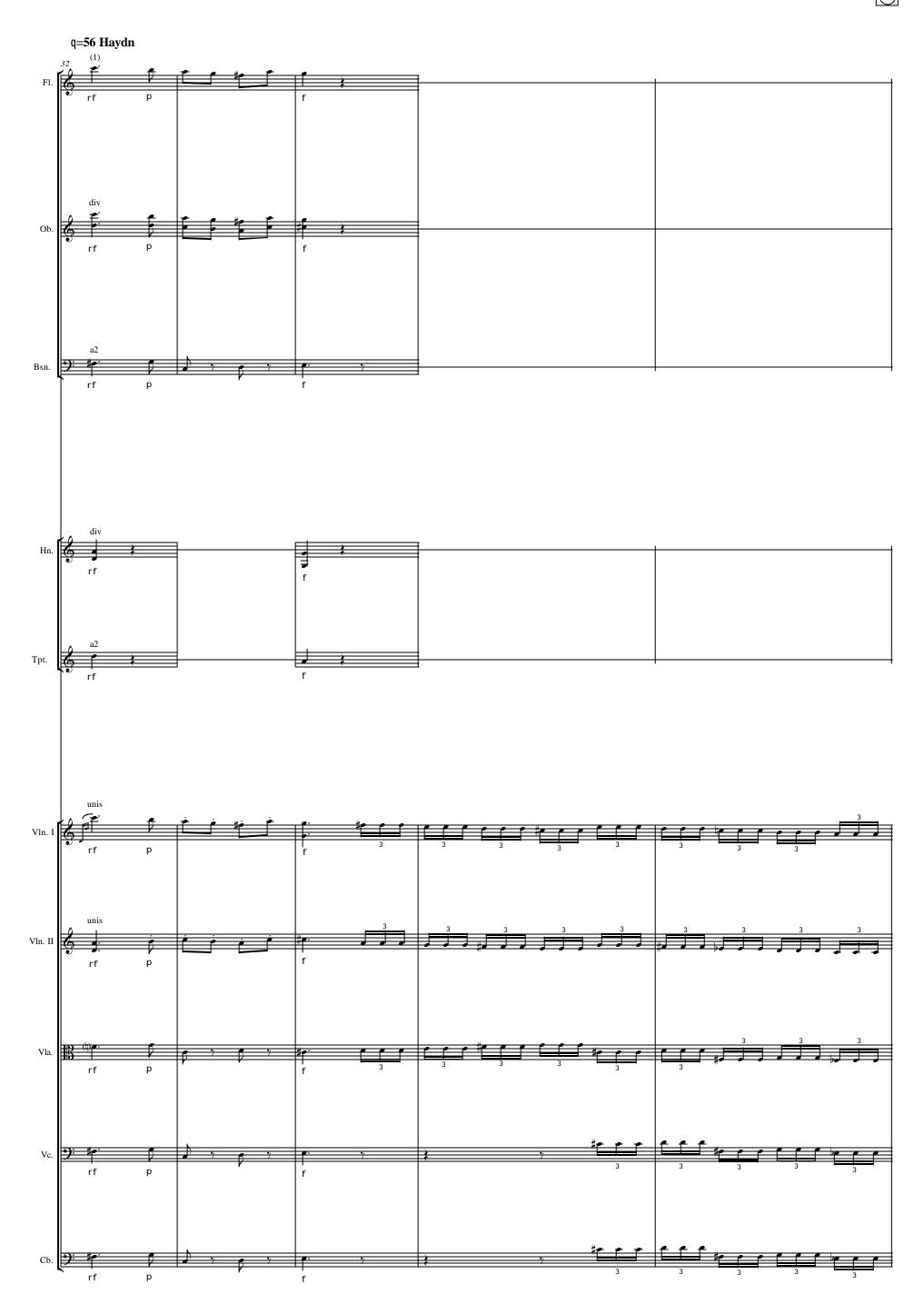


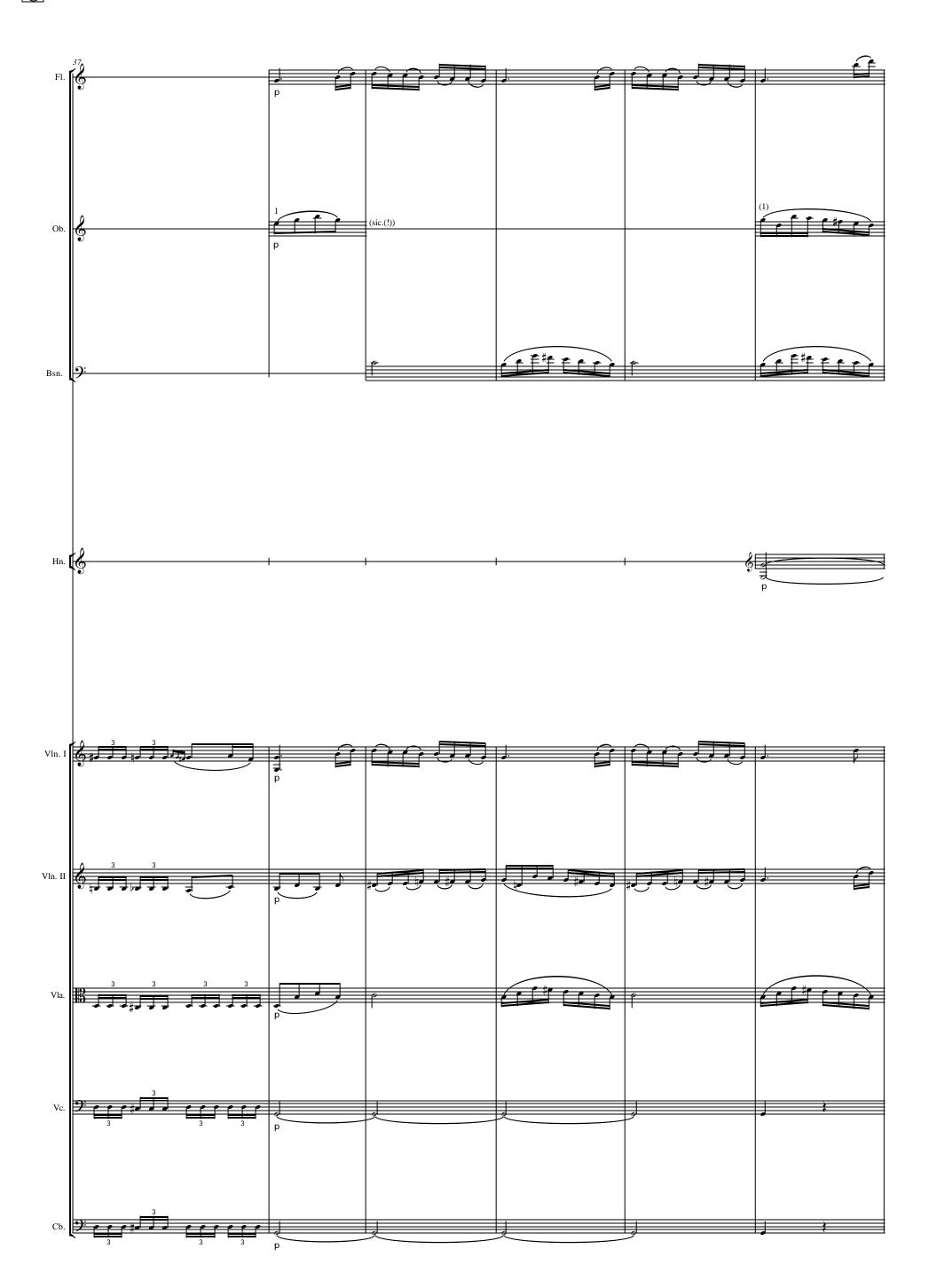


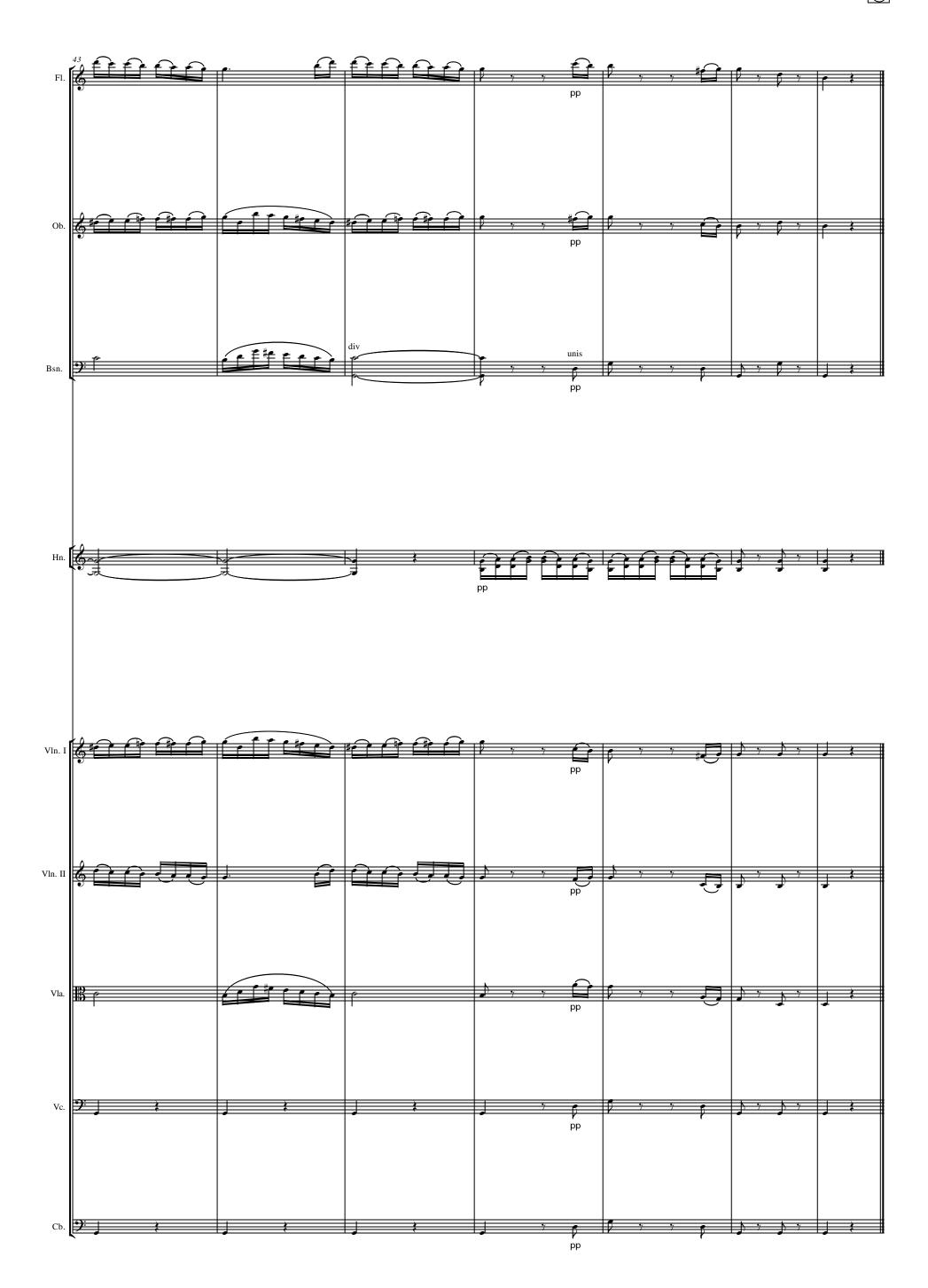






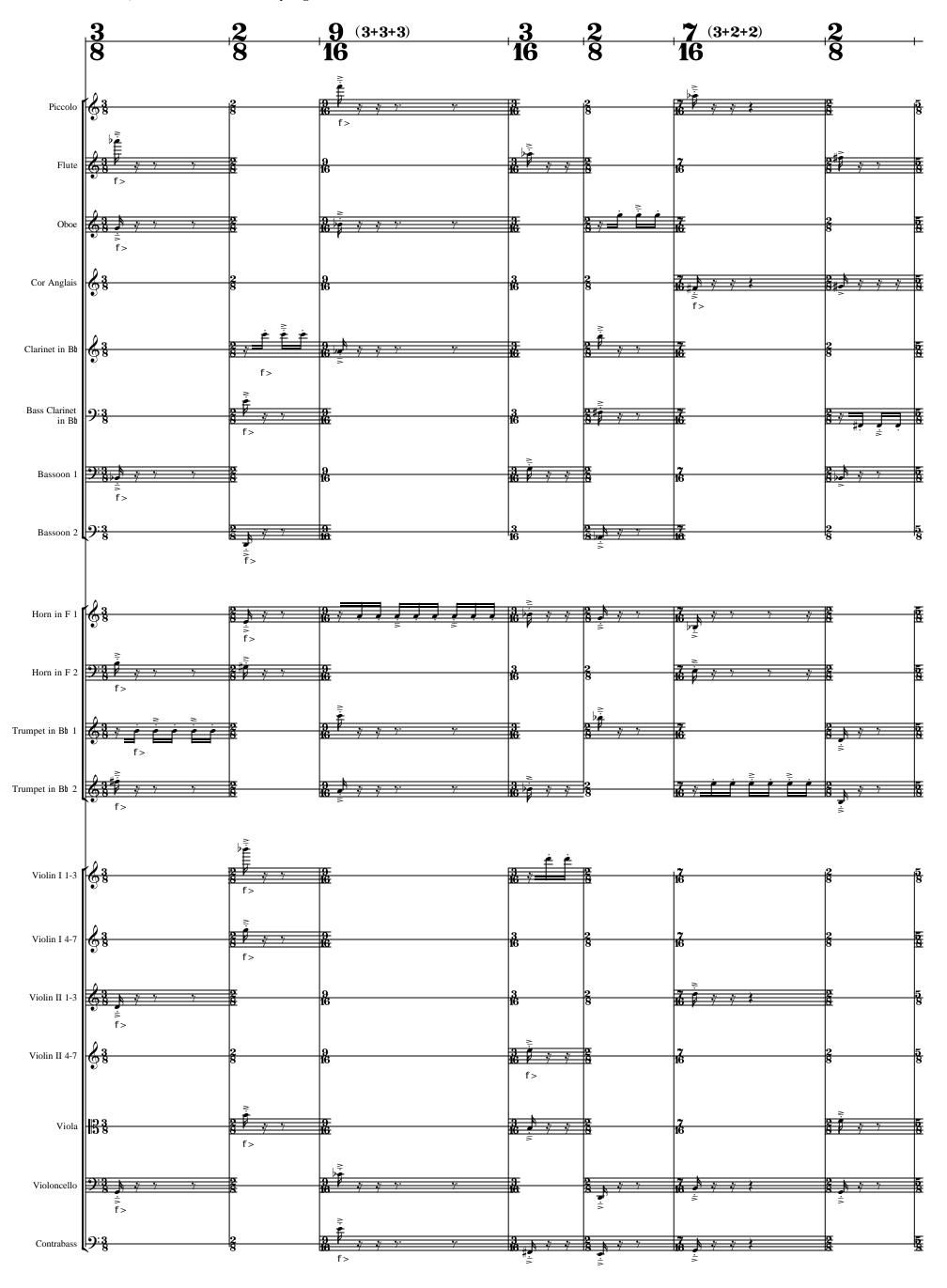


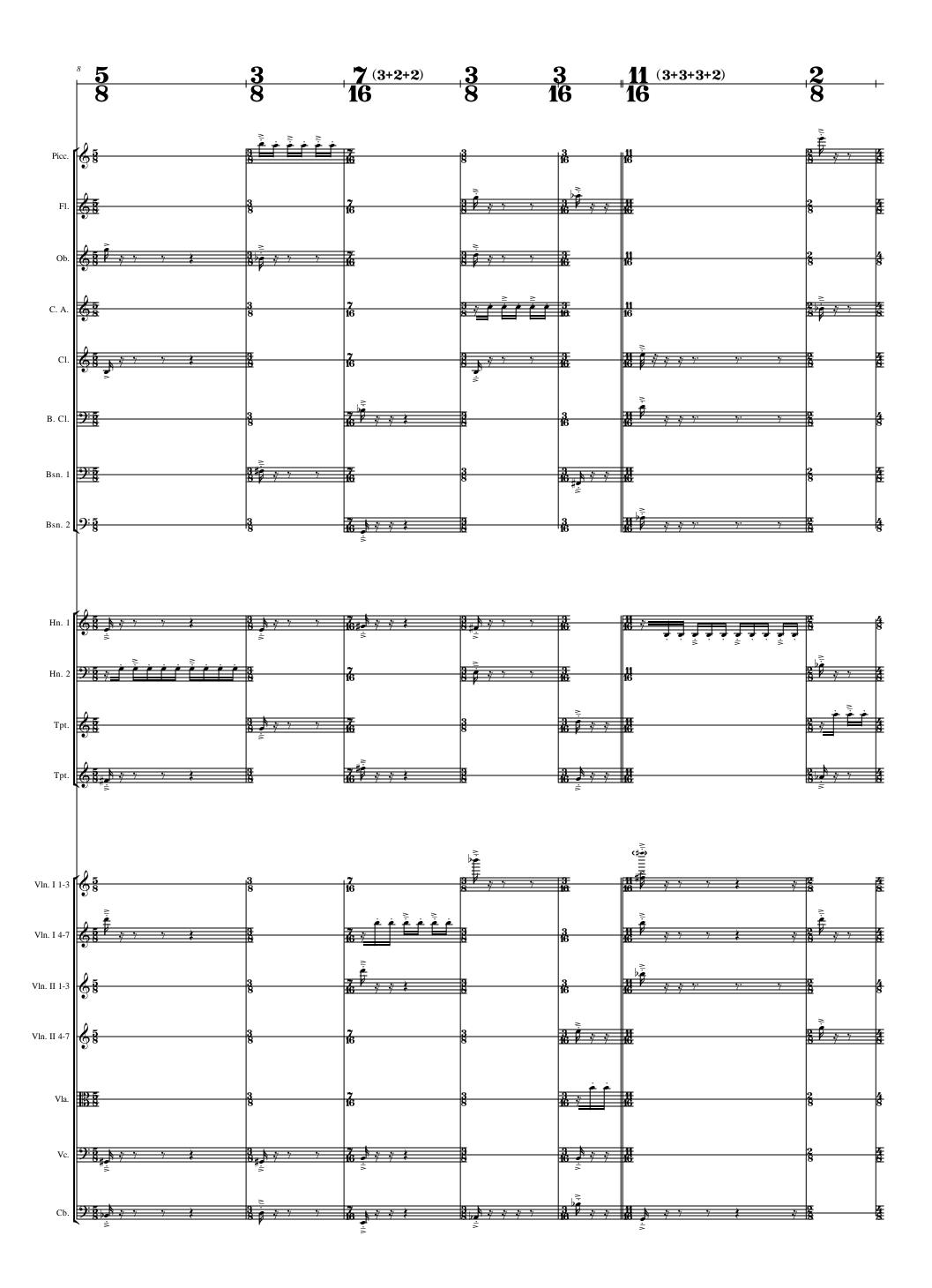




Movement VI

e=160, x=320 Precise - Relatively Light in Character

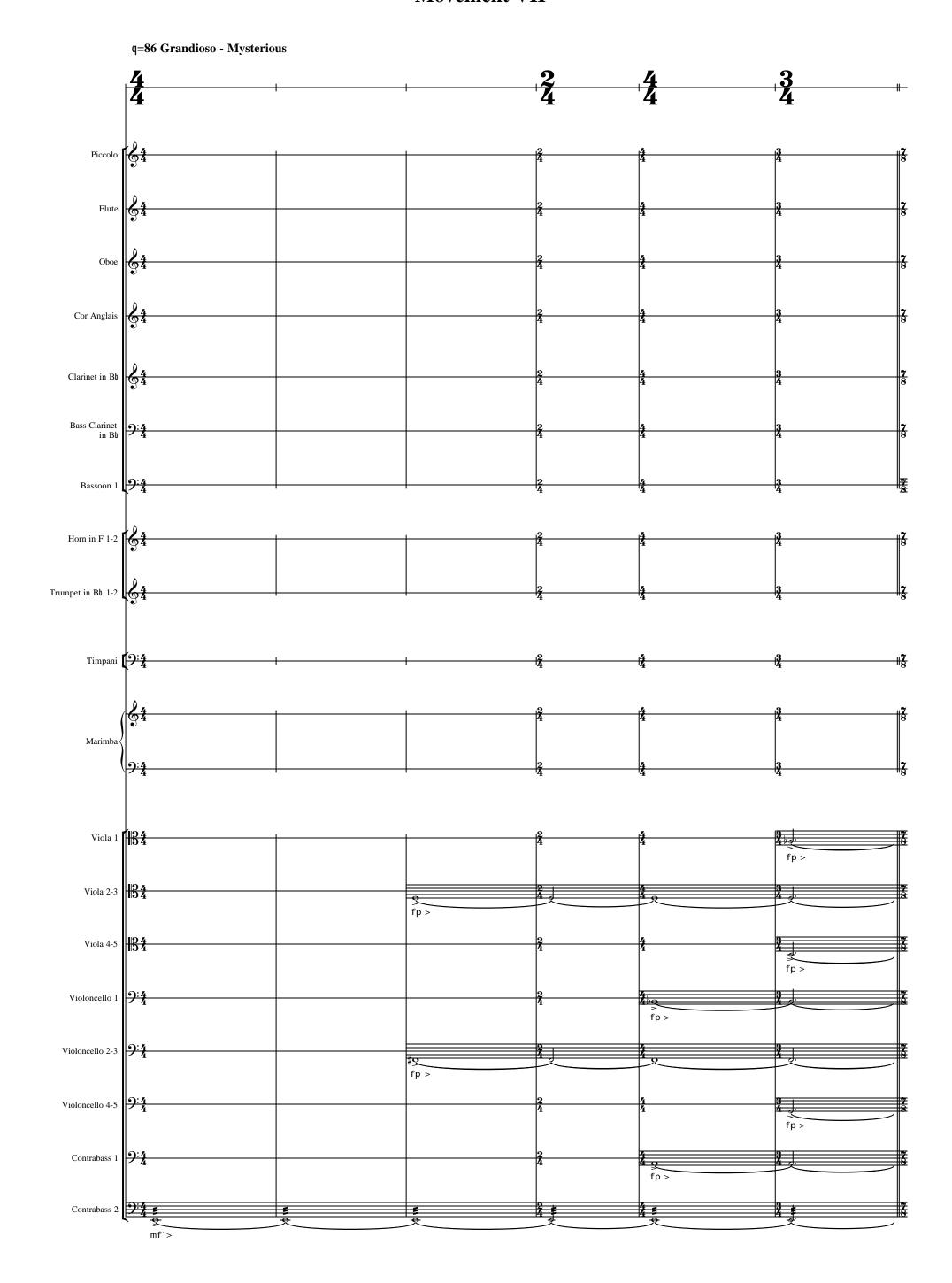


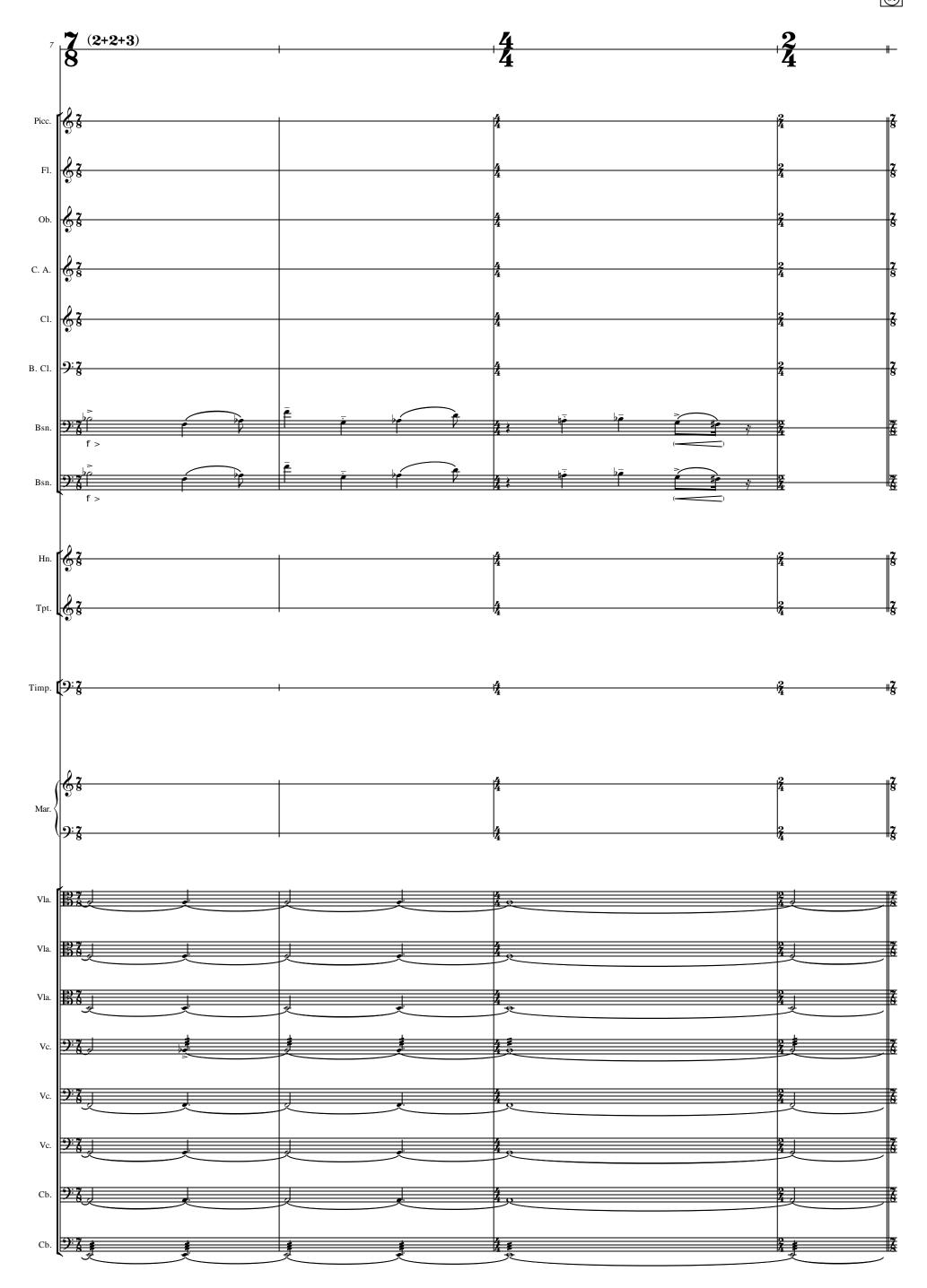


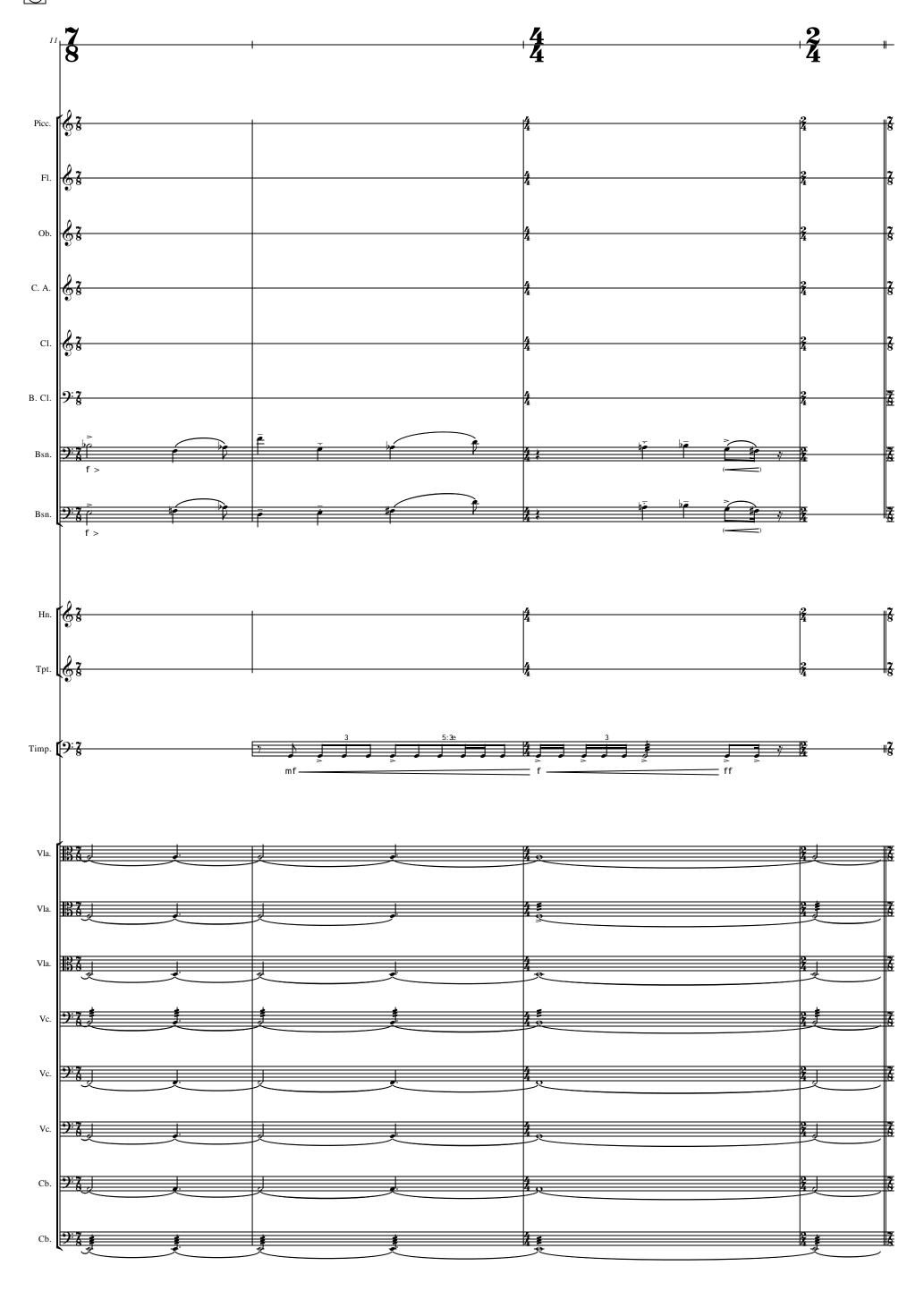




Movement VII













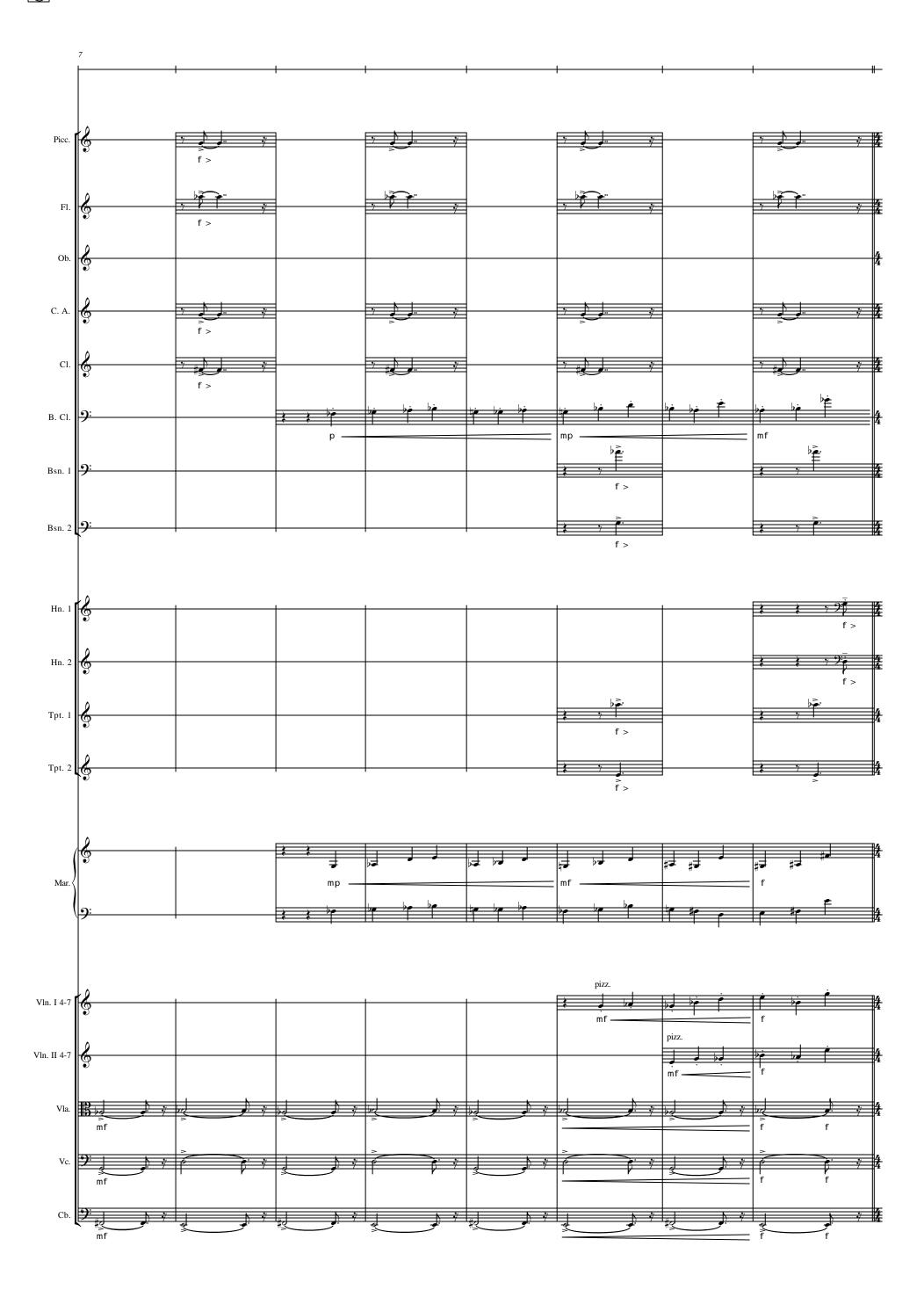


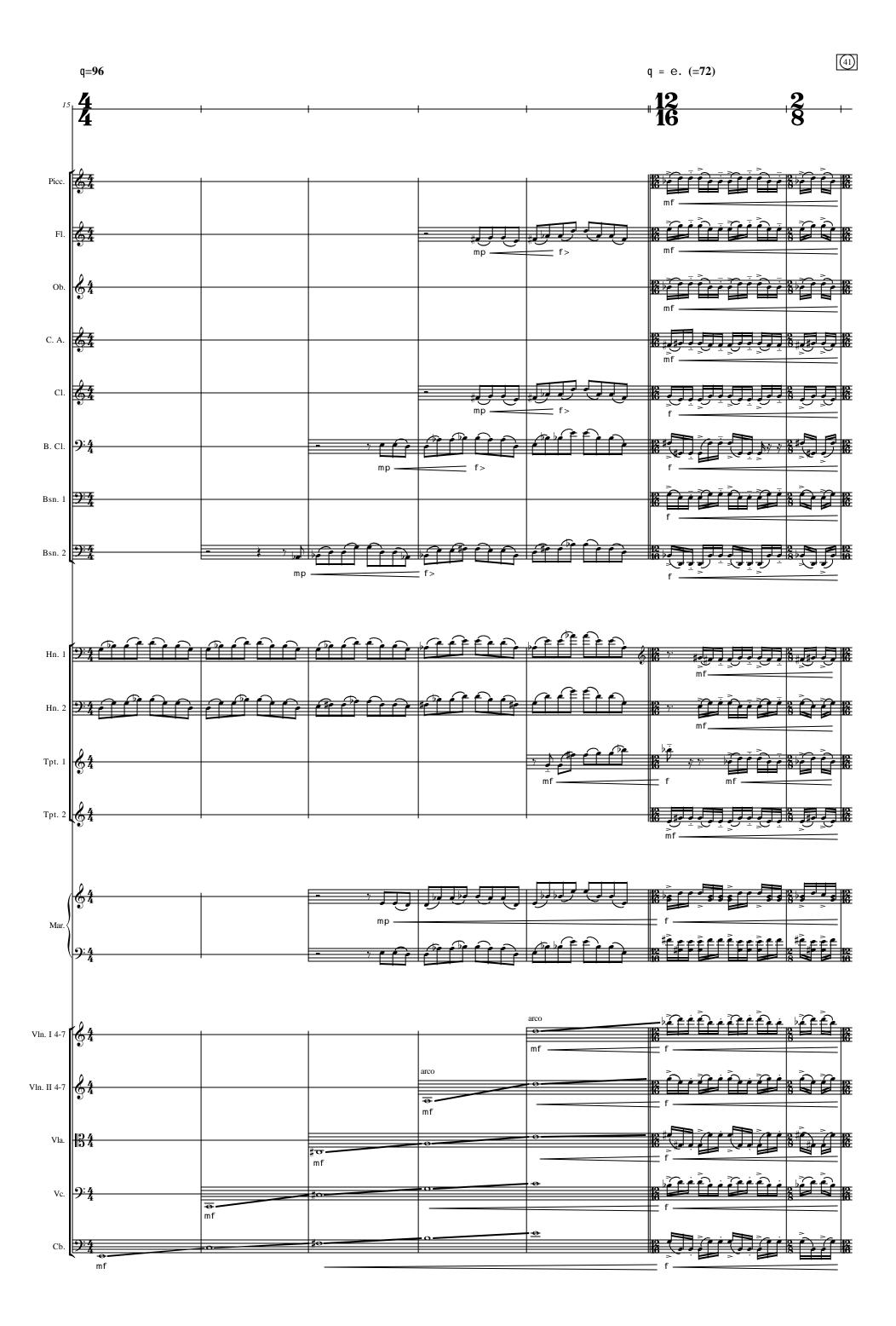


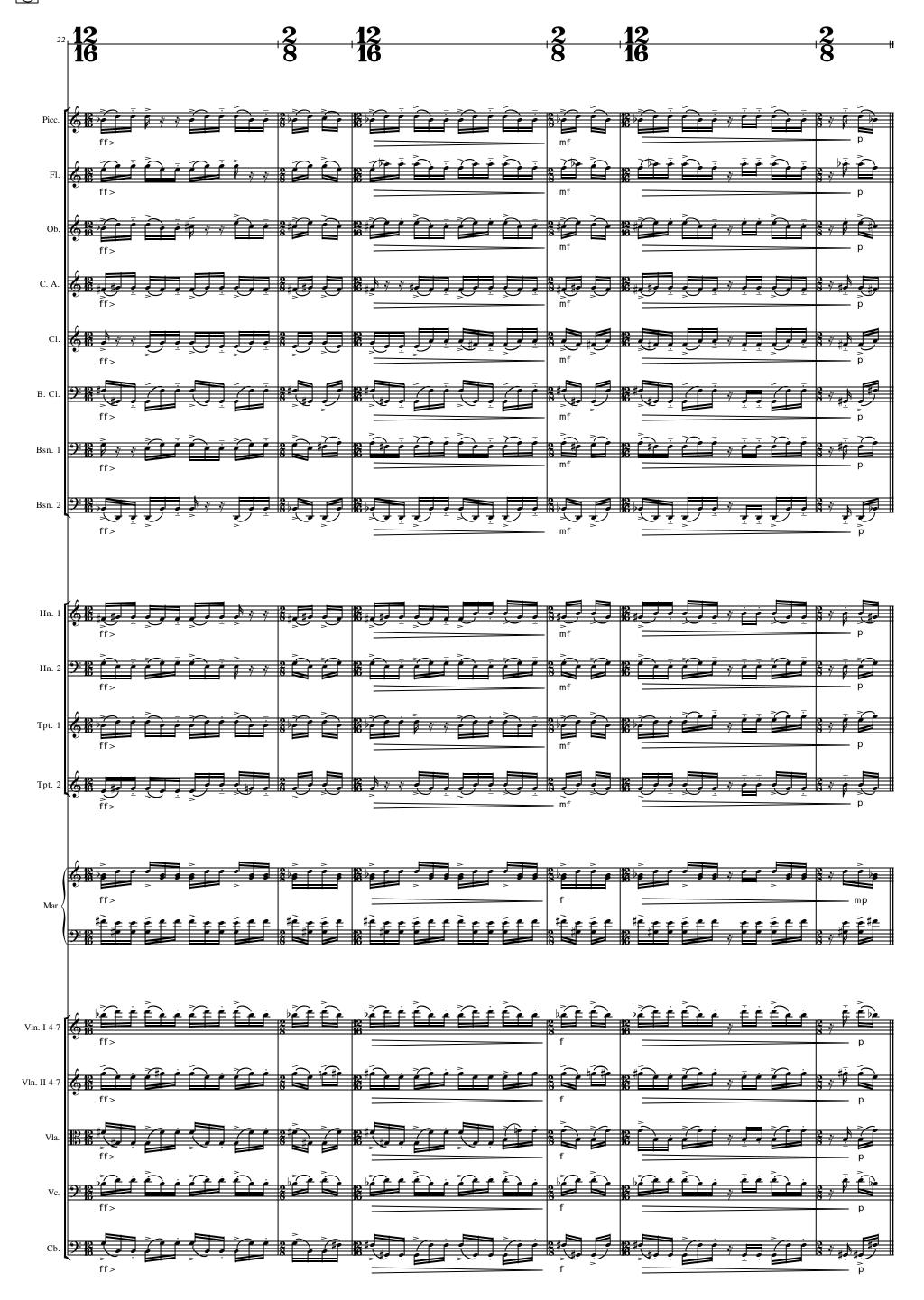


Movement VIII

q=72 Cautious - Gradually More Assertive Cor Anglais Clarinet in Bb Bass Clarinet in Bb Trumpet in Bb 1 Trumpet in Bb 2 Violin II

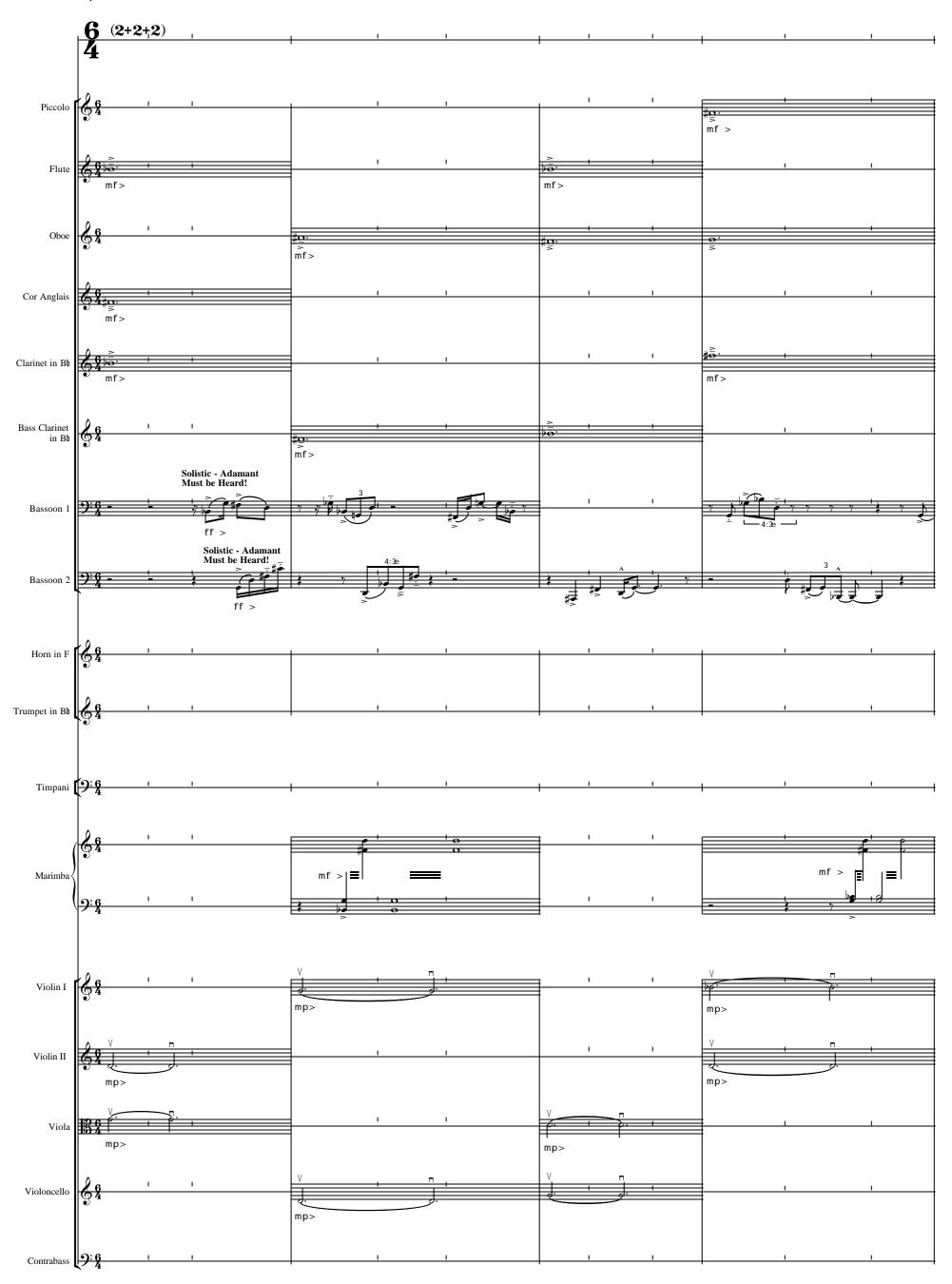






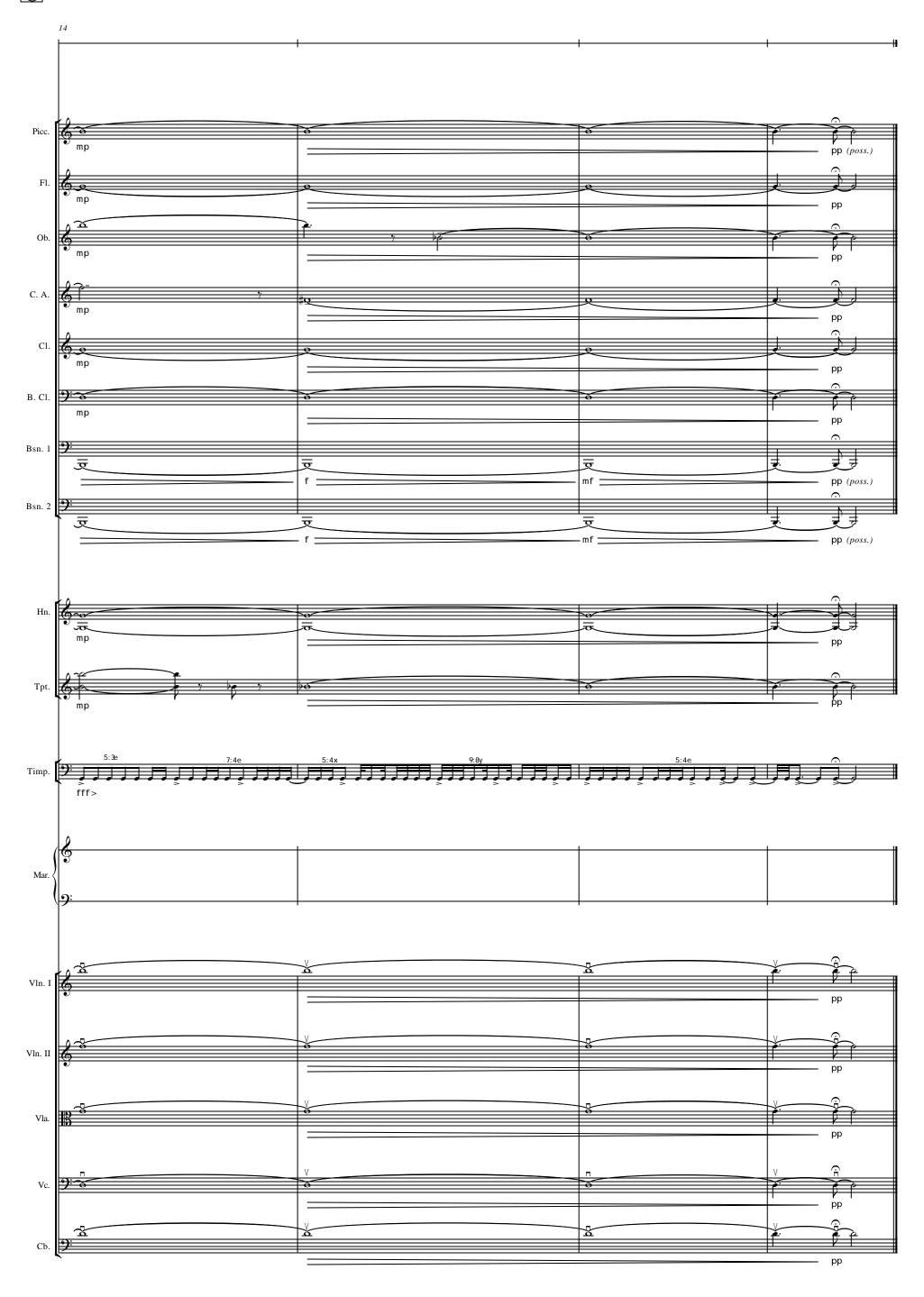
Movement IX

q=48 Sustained Ethereal Stasis with Adamant and Intense Bassoons









q=60 Thick Stasis with Light and Airy Solos



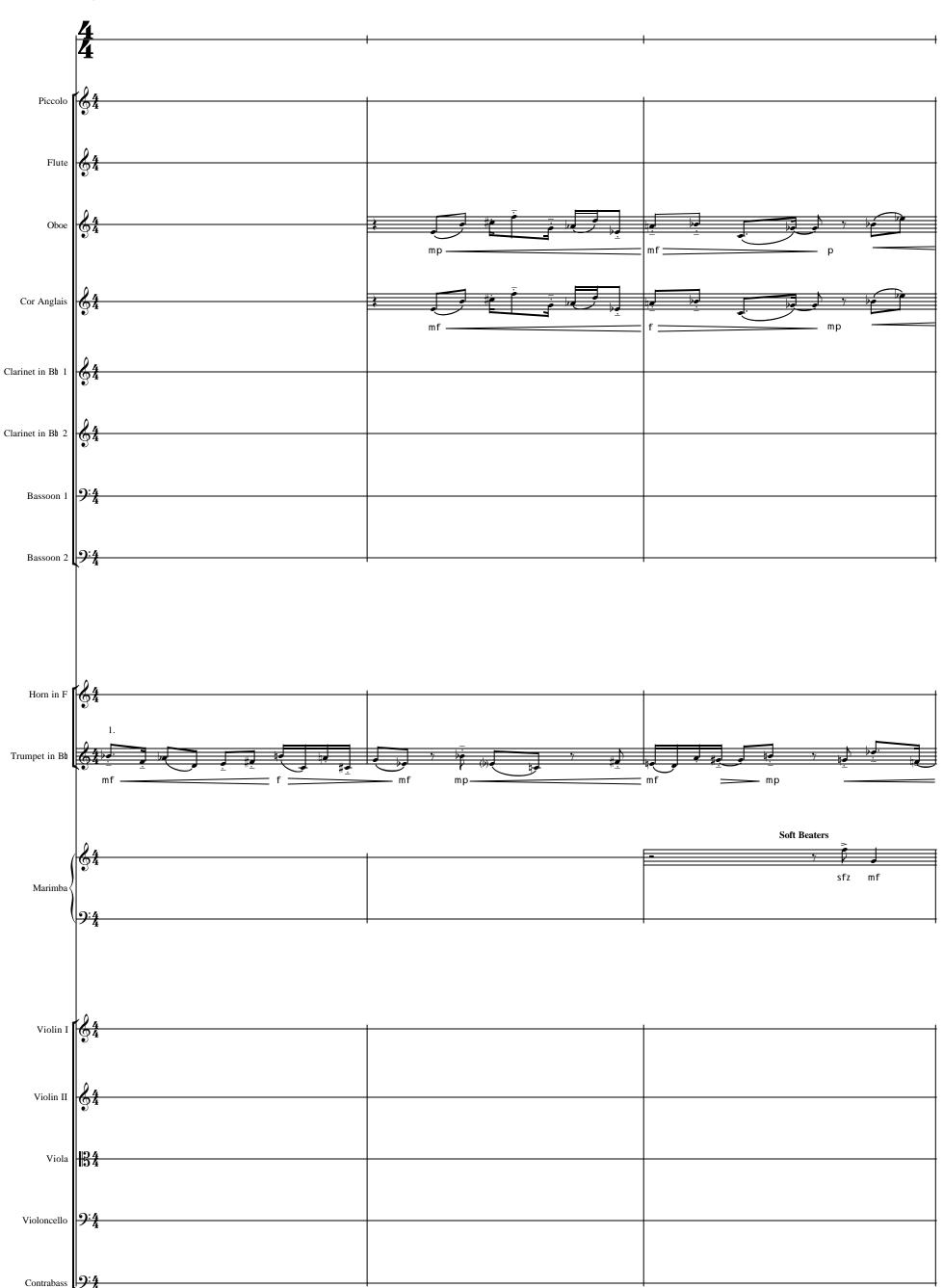


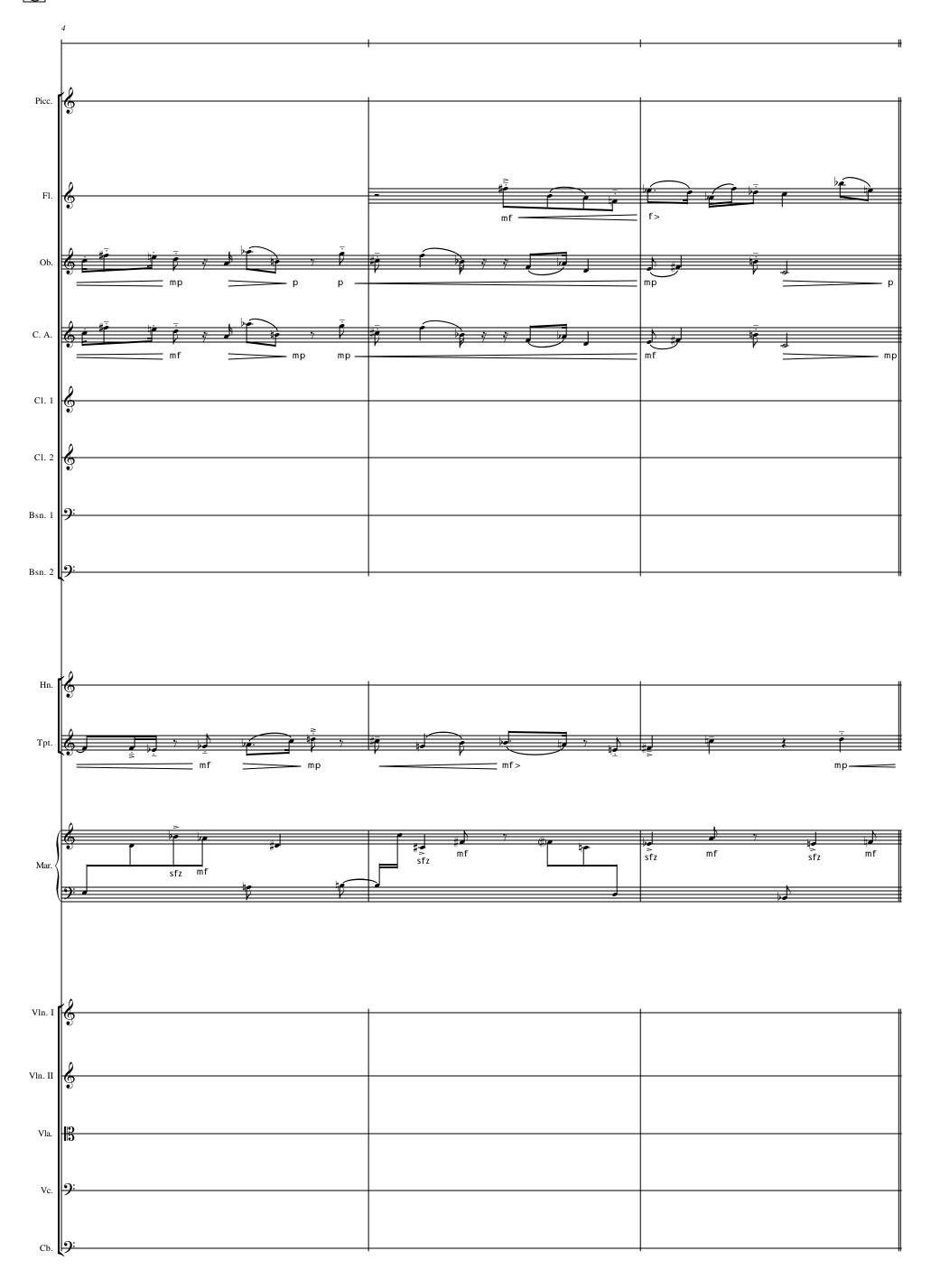


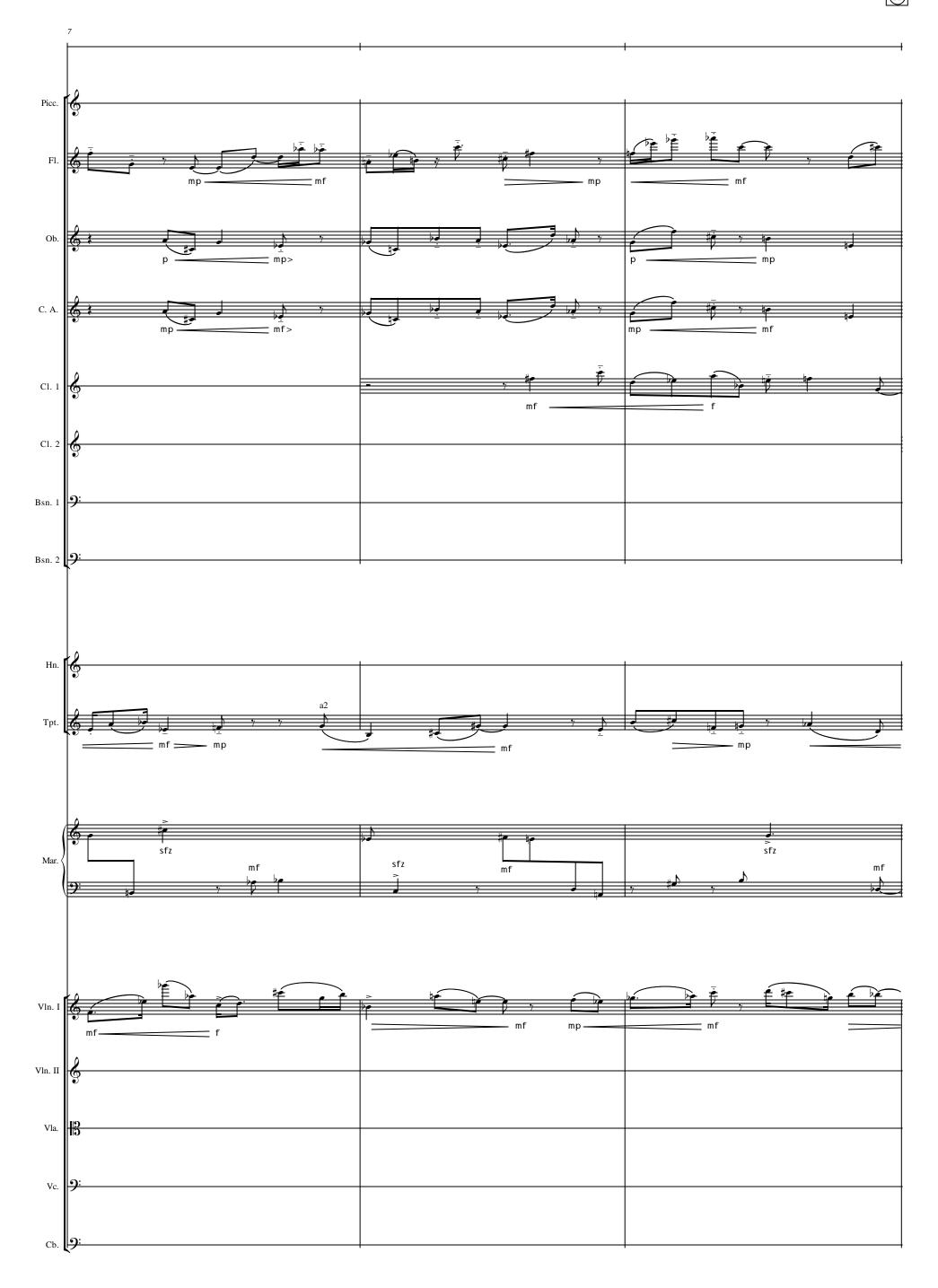


Movement XI

q=64 Driven - Bright





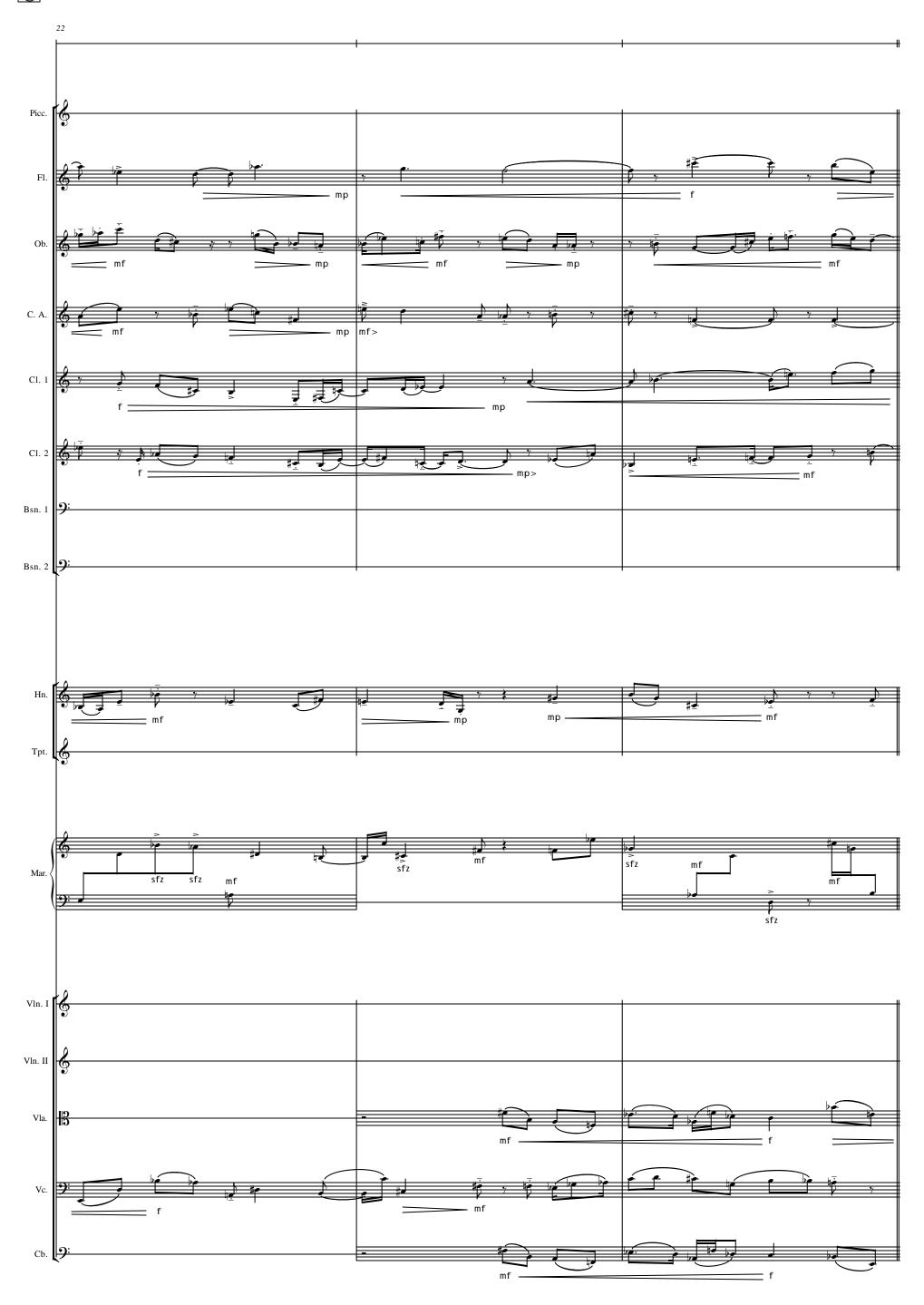














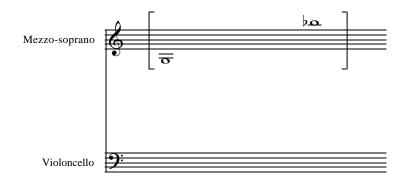






From The Eumenides

- 7 Short Movements for Mezzo-Soprano and Violoncello -



Eric Egan

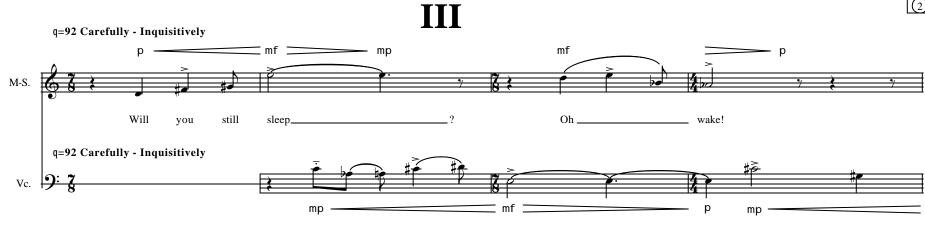
7 minutes

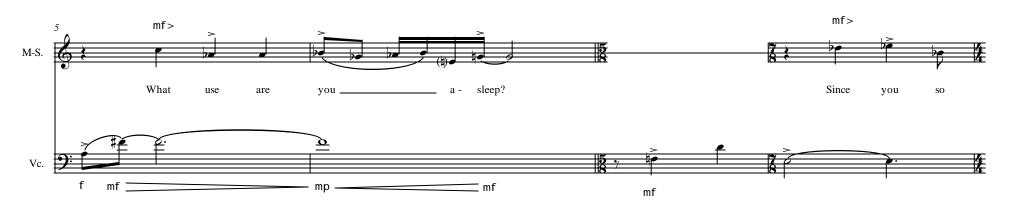
From The Eumenides

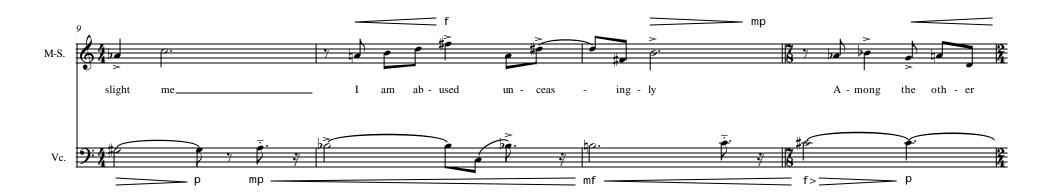
- 7 Short Pieces for Mezzo-Soprano and Violoncello -

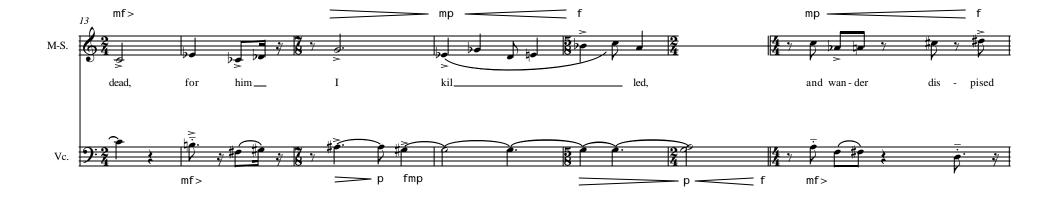


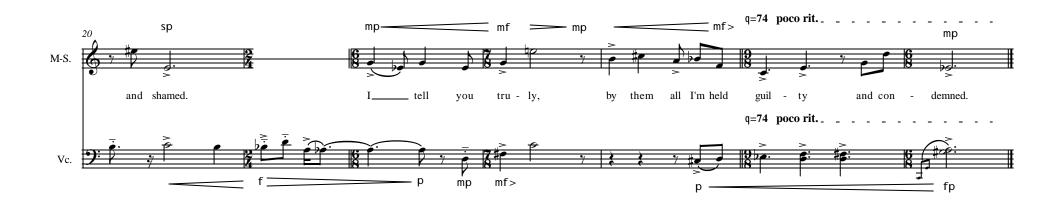






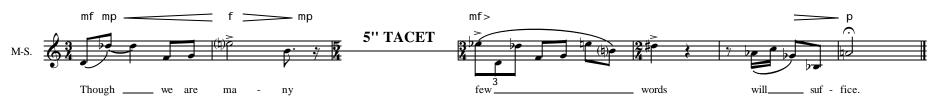






IV



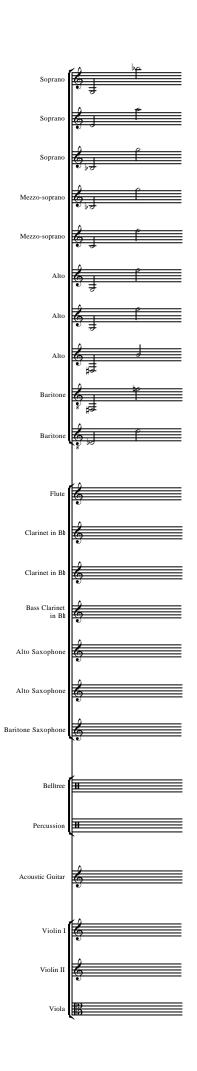












Lost Words

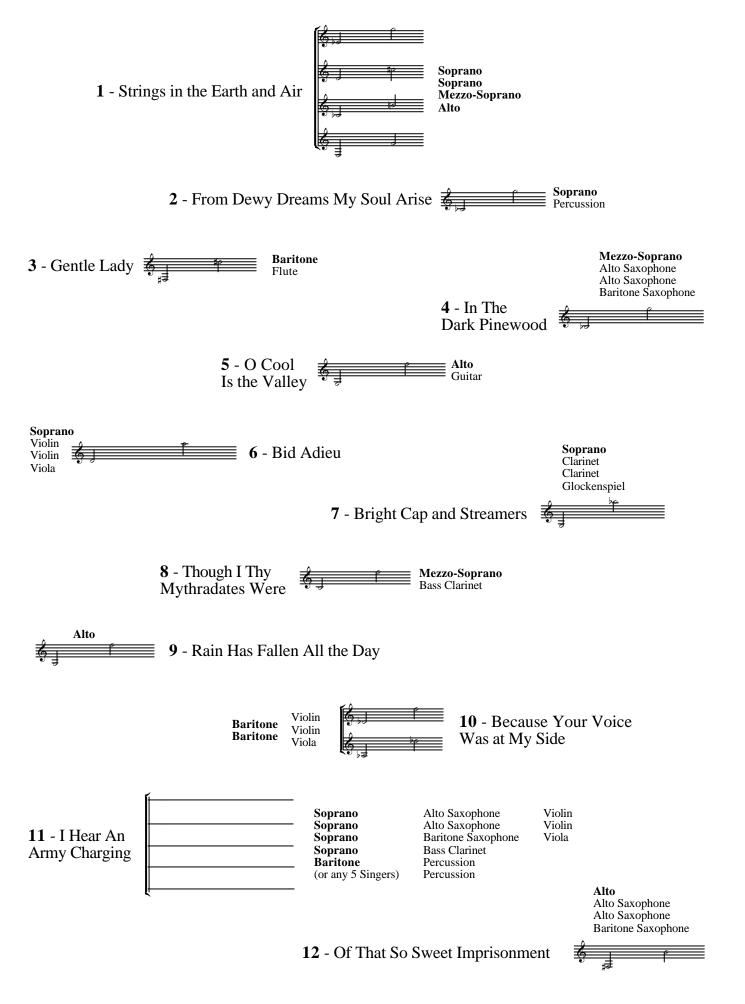
A Chamber Opera

- Staged or in Concert -

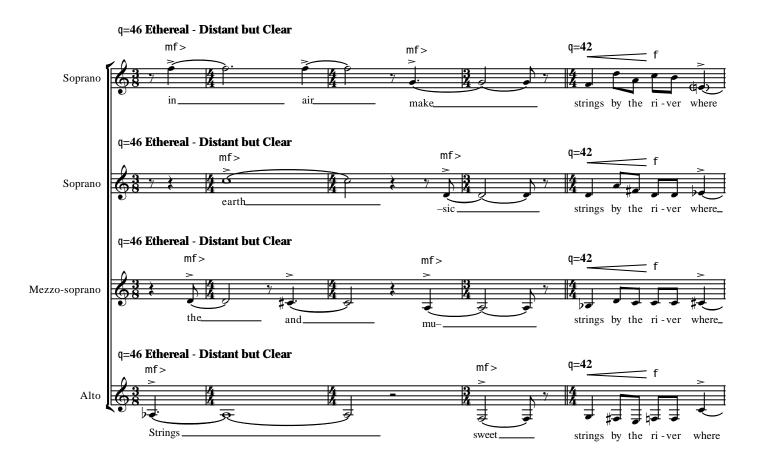
- Any selection of songs may be performed on their own -

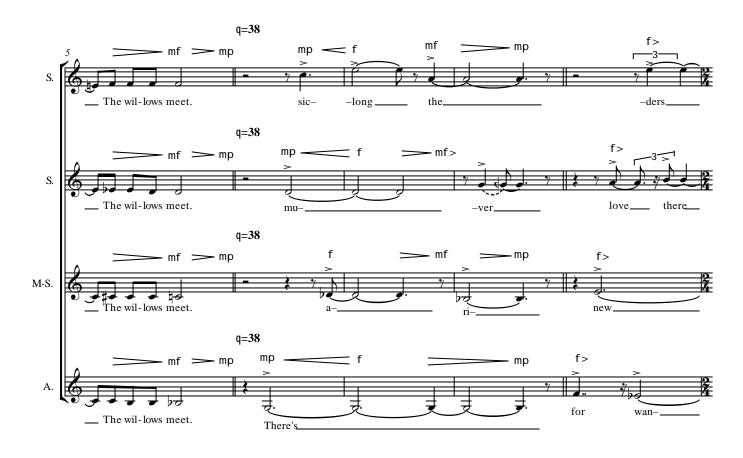
Eric Egan

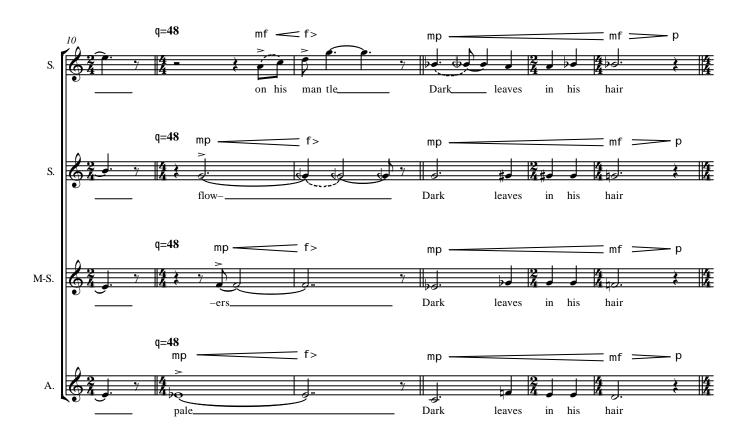
25 Minutes

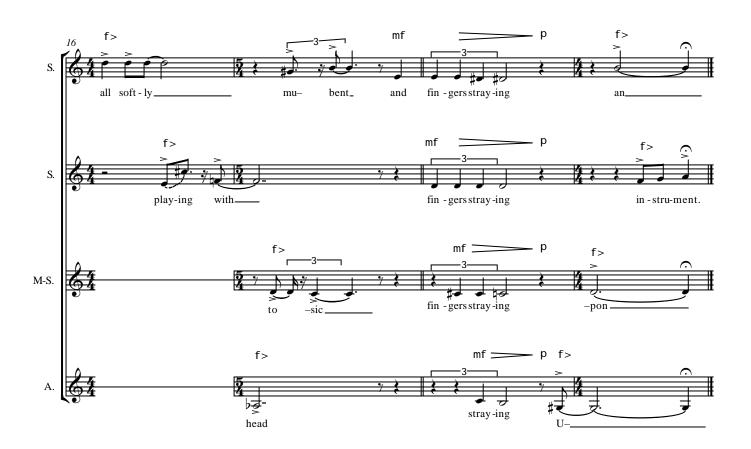


I Strings in the Earth and Air









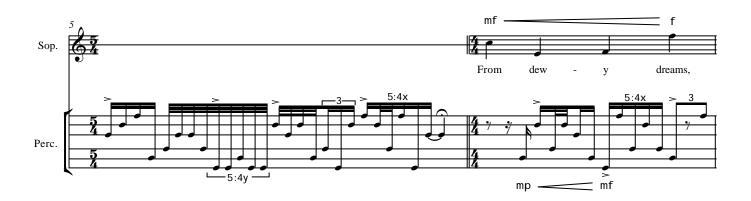
II From Dewy Dreams my Soul Arise

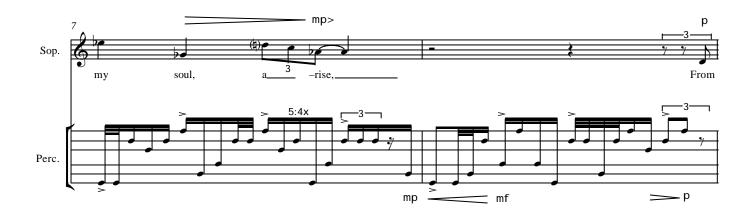
$q=84\ Cautious$ - Inquisitive and Youthful

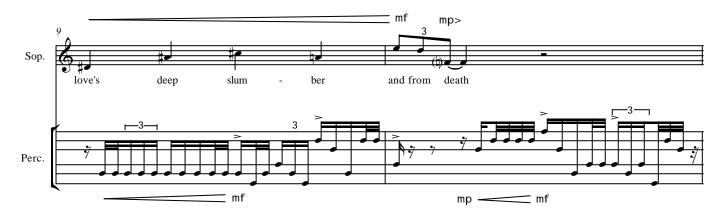
A certain rhythmical freedom might be required in order to follow the singer.

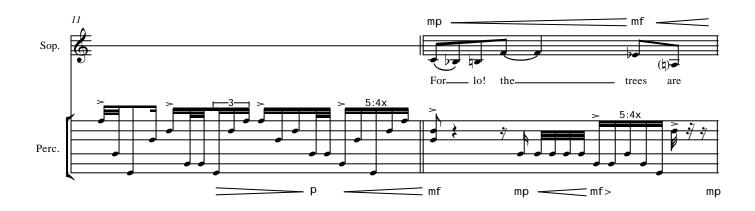


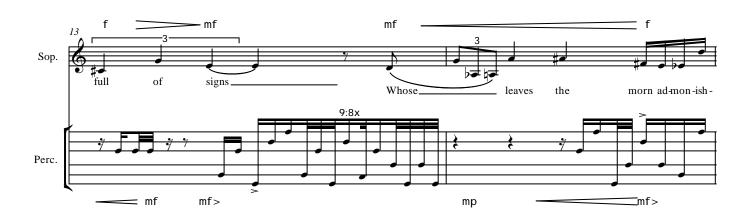


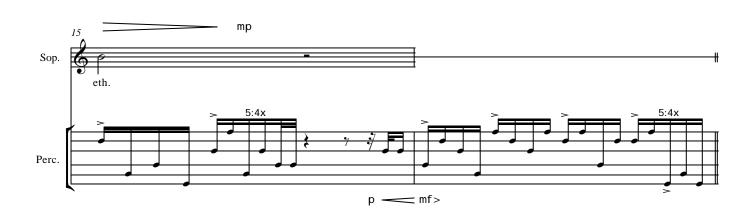


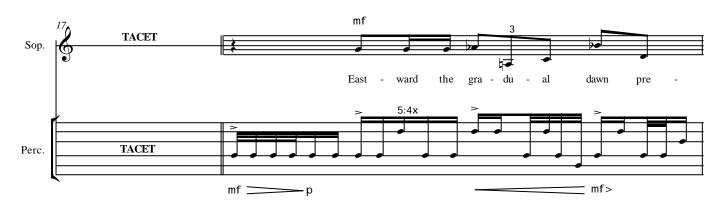


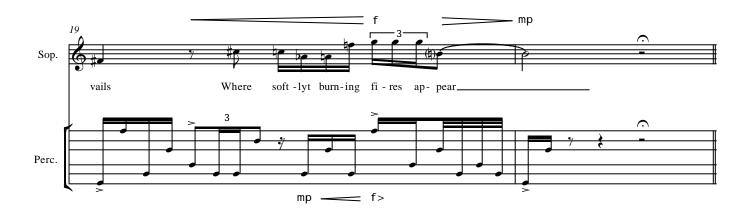


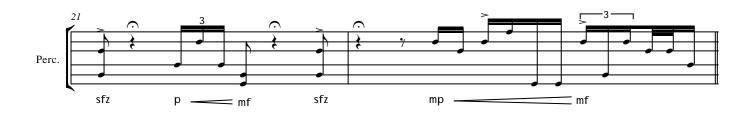




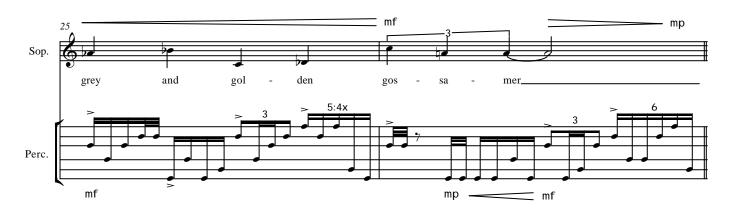


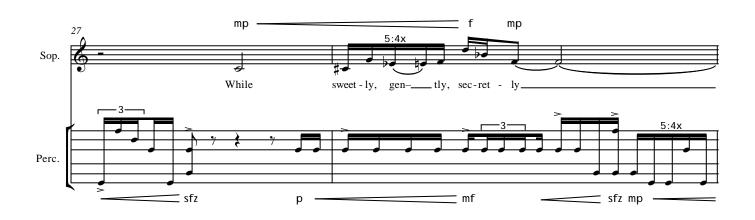


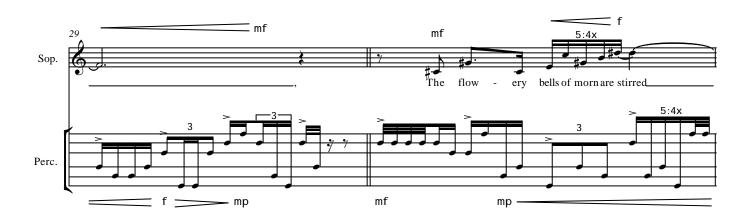


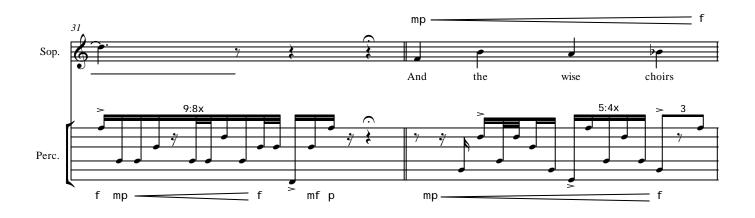


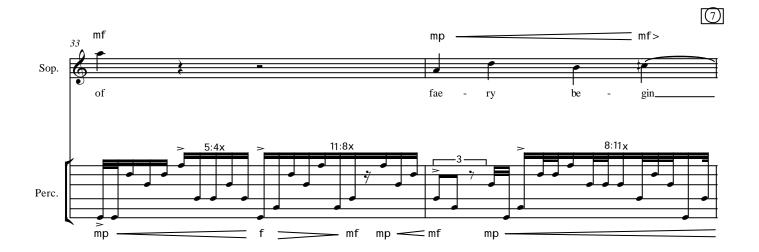


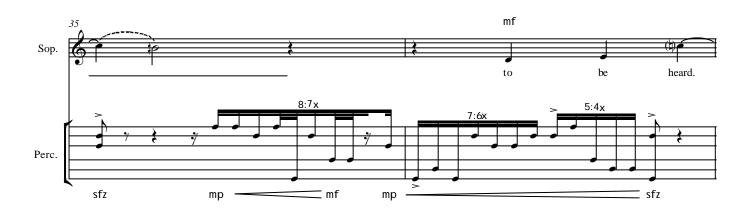


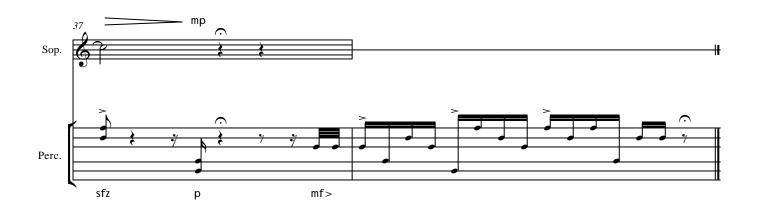










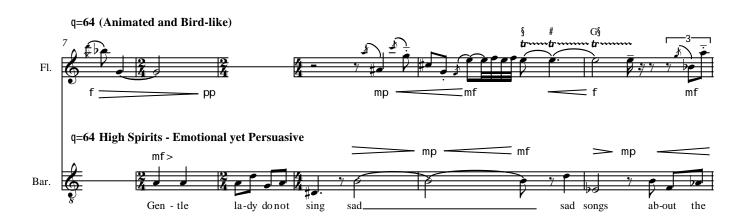


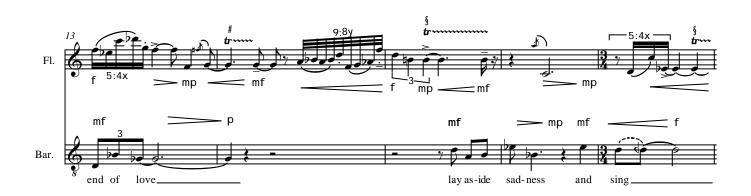
8

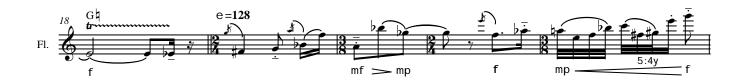
III Gentle Lady

e = 128 Animated and Bird-like throughout.

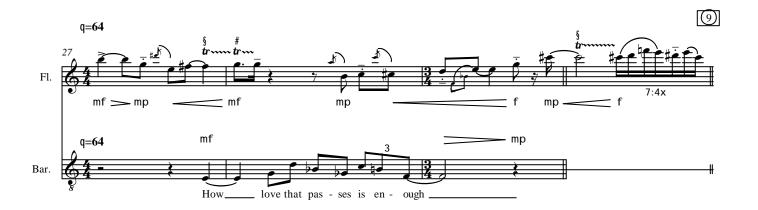


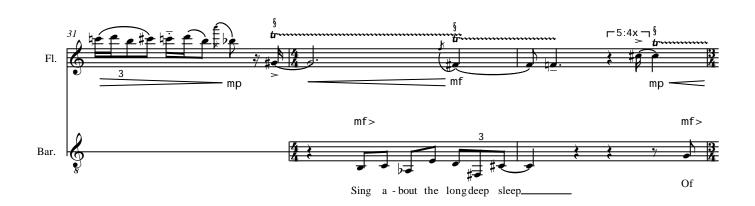


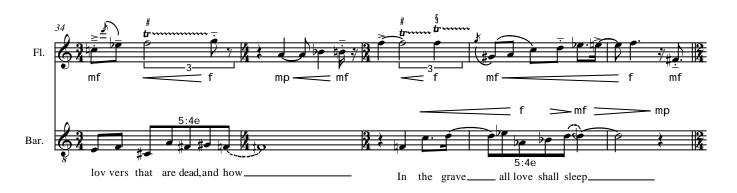




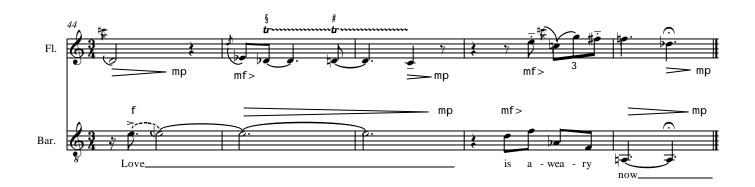






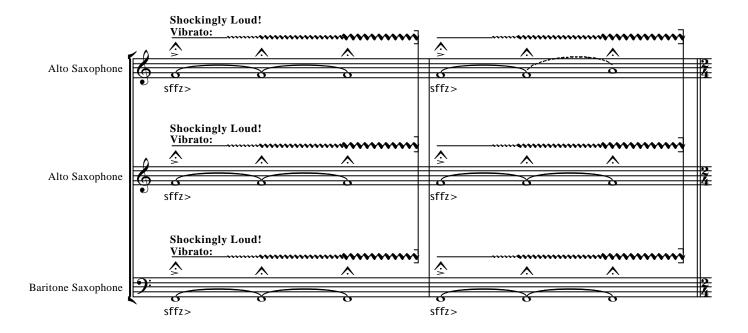


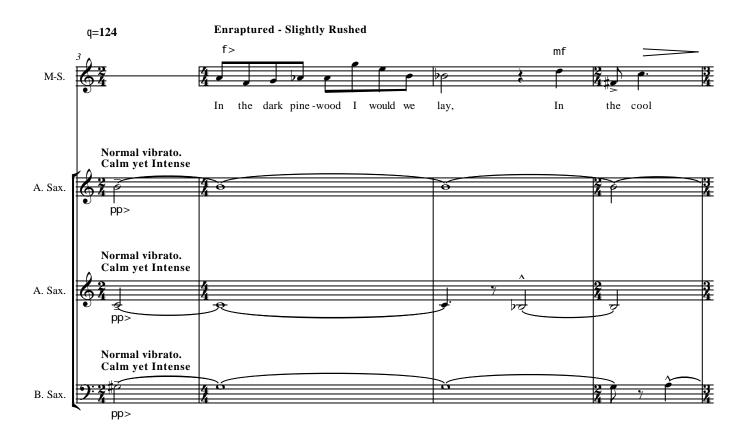




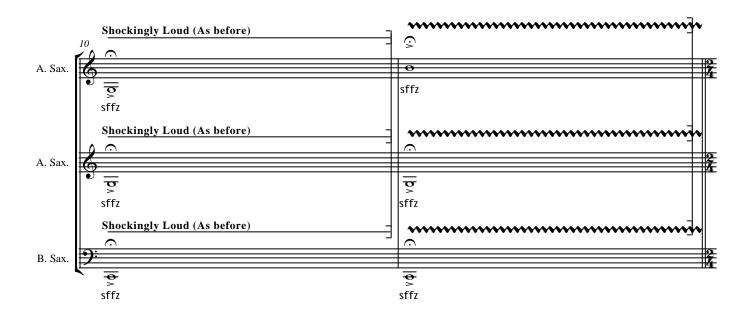


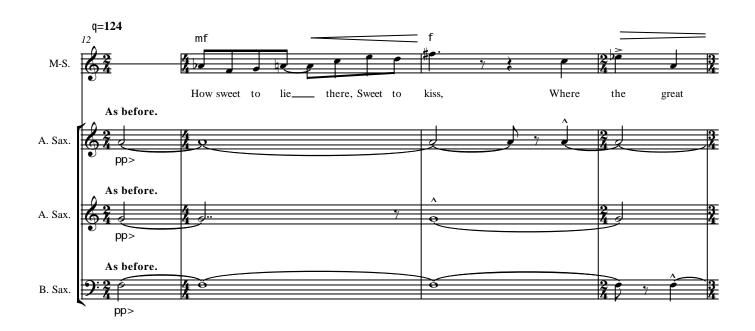
IV In the Dark Pinewood



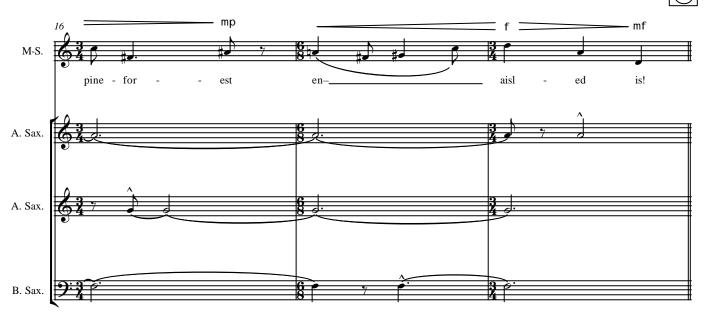


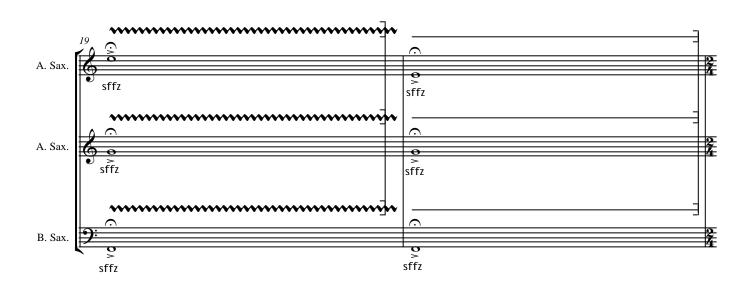


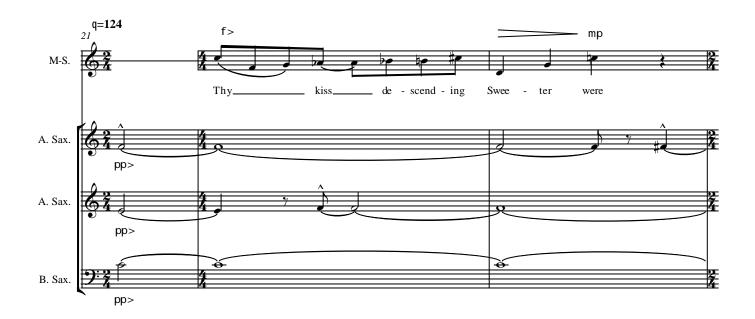




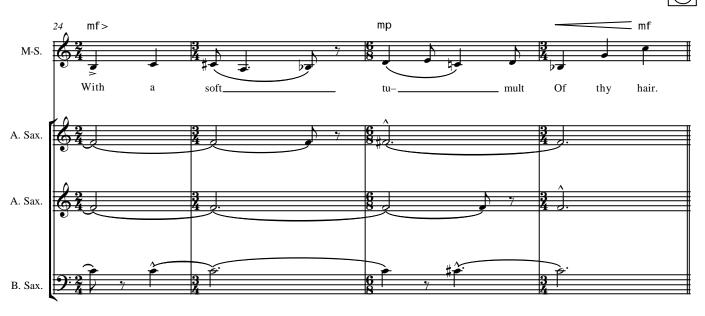


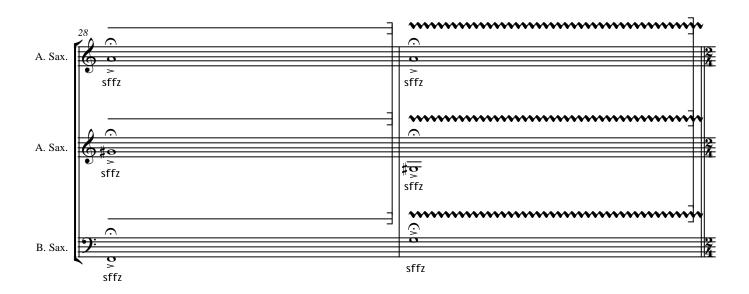


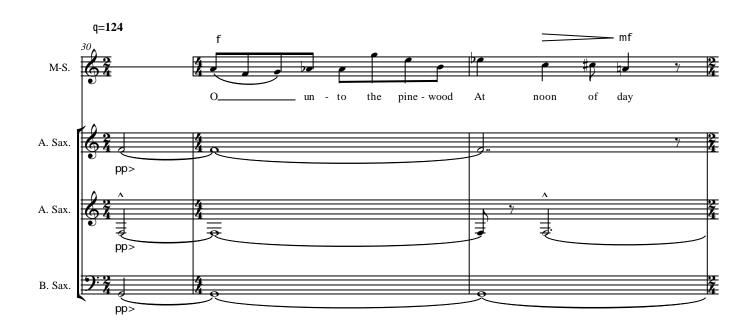




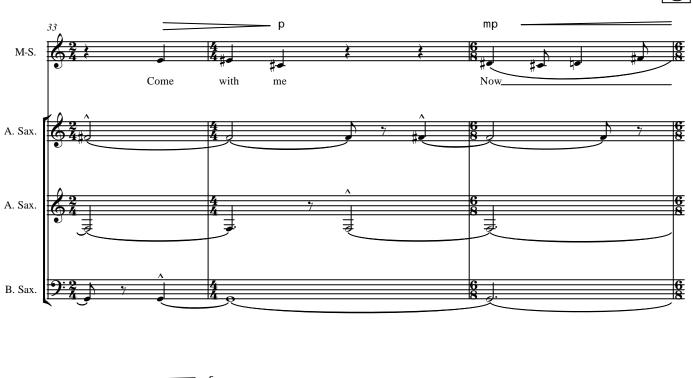


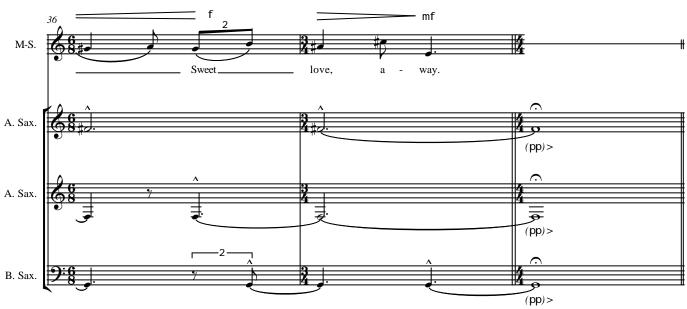


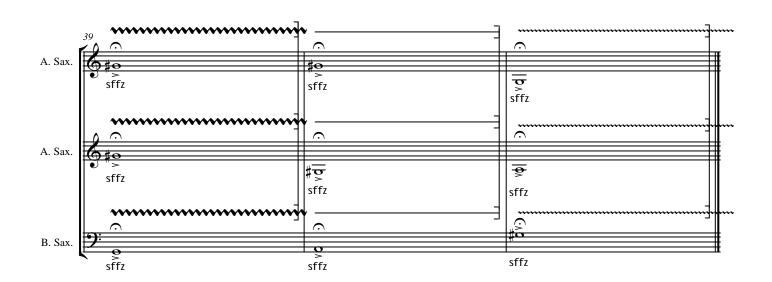










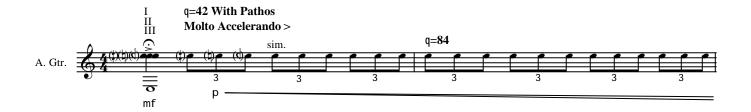


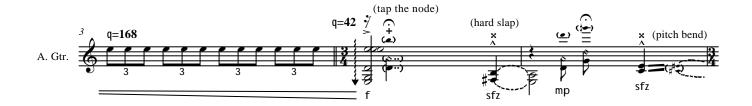
\mathbf{V}

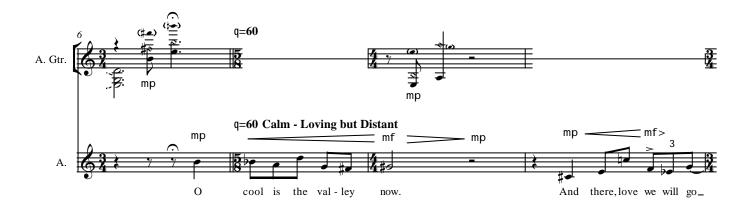
O Cool is the Valley Now

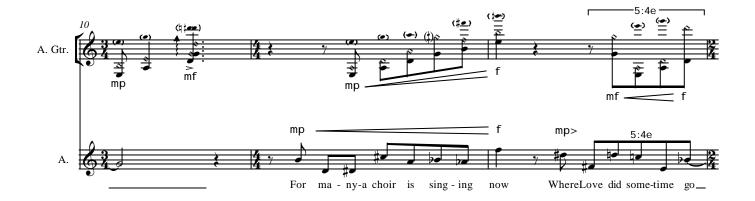
All notes in the guitar are notated as played and are to be sustained throughout.













VI Bid Adieu

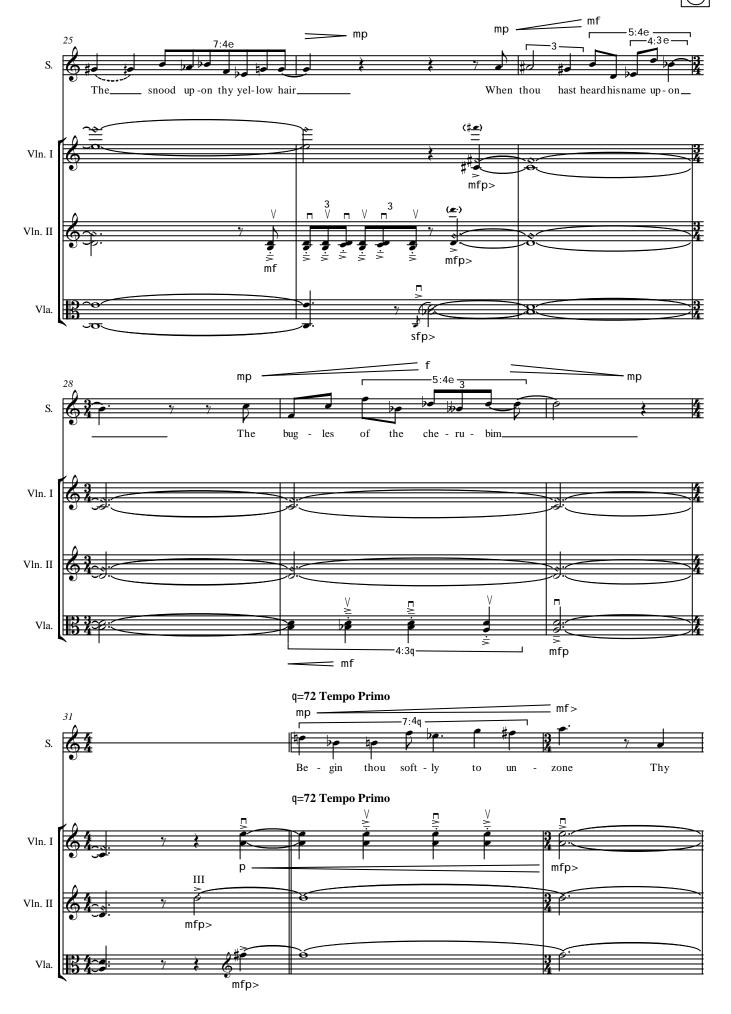
 $Tuning:\ Violin\ I\ (I\ up\ 1/4\ tone)\ -\ Violin\ II\ (IV\ and\ II\ up\ 1/4\ tone)$ All notes are notated as played.

q=72 In Pain - Strenuous and Anguished













(21)

VII

Bright Cap and Streamers

q=108 Joyfyl - Enamoured and Excited











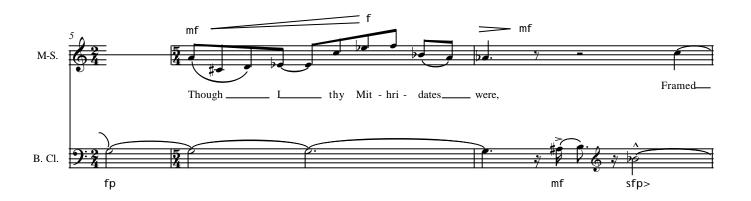


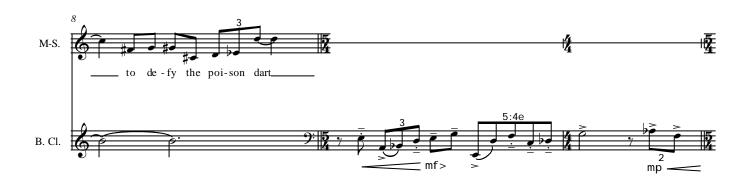
VIII

Though I thy Mythridates were

q=112 Determined - Annoyed but Contained



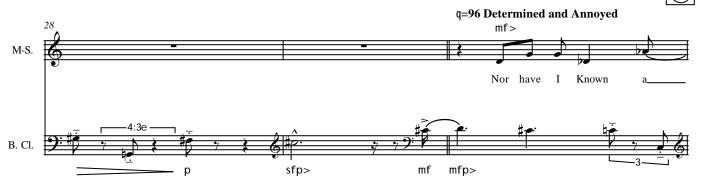


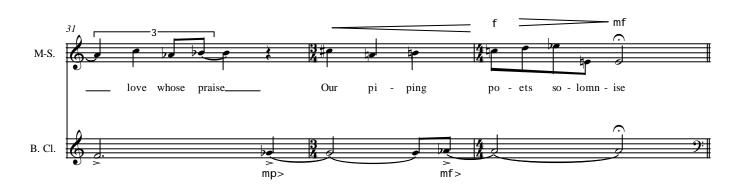






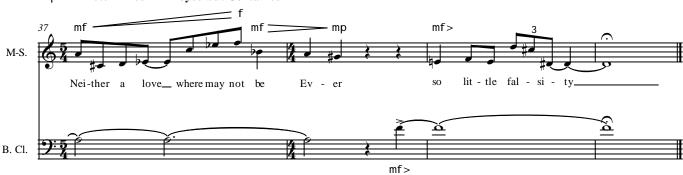








$q=112\;\;Determined$ - Annoyed but Contained



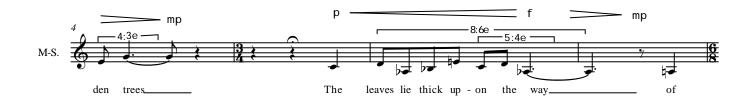
(29)

IX

Rain has fallen all the day.

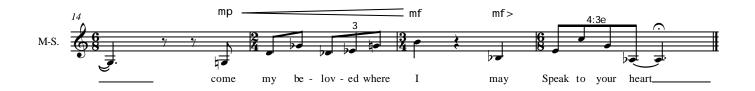
q=52 Completely Still - Quiet and Ghostly (Take Your Time)









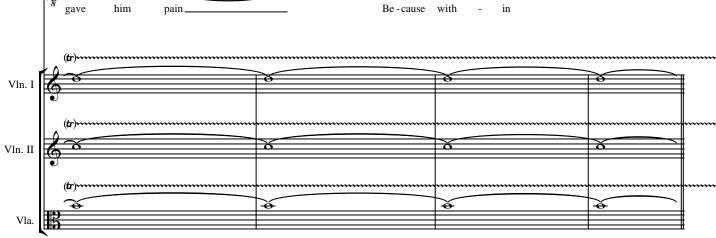


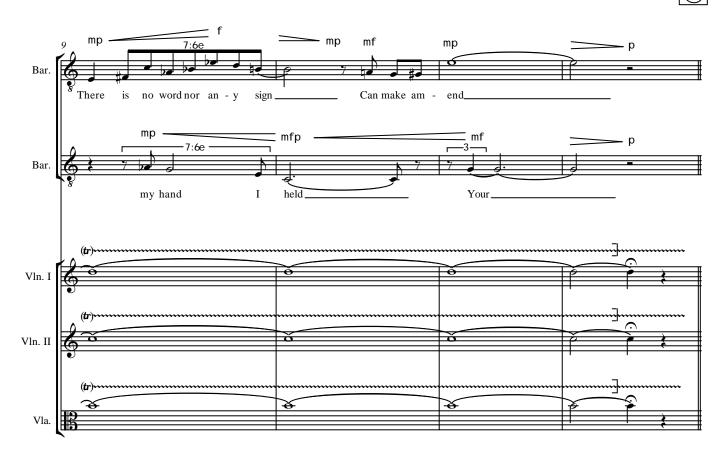
(30)

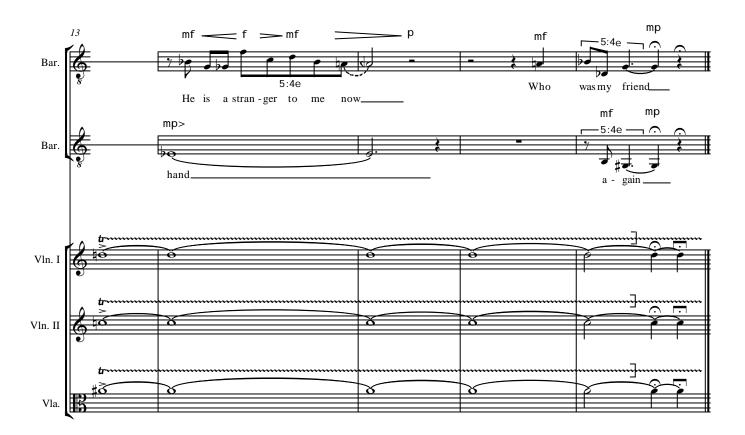
X

Because Your Voice Was at My Side





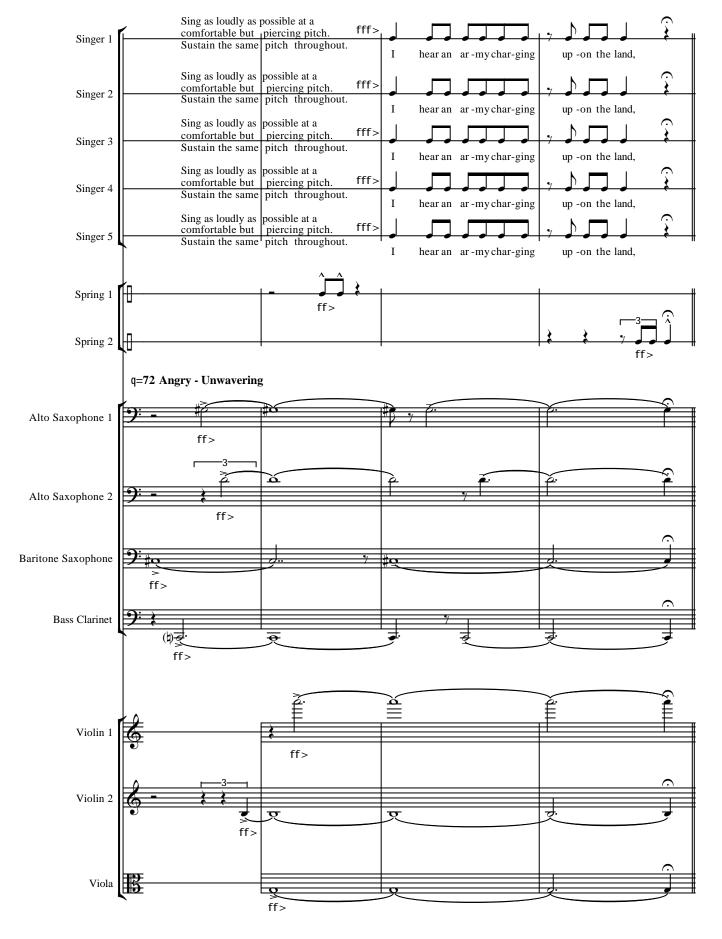




XI

I Hear an Army Charging

q=72 Angry - Chaotic yet Unwavering















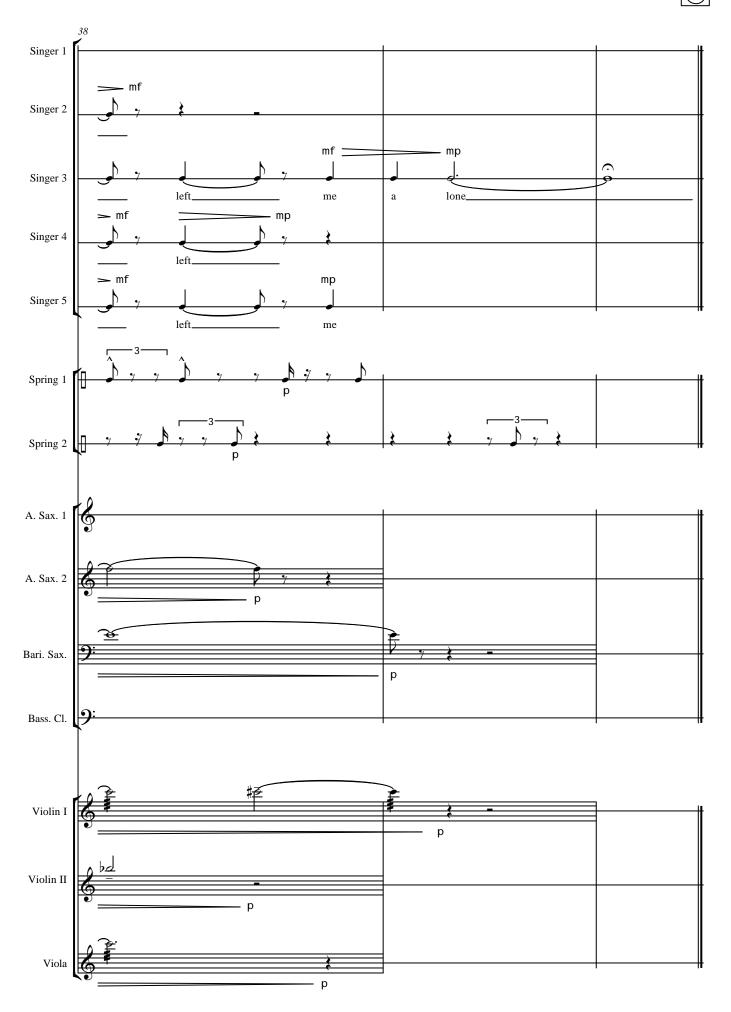






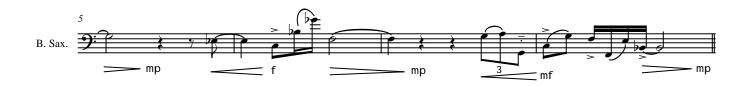


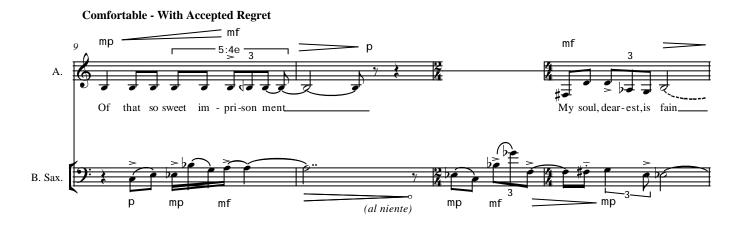




XII Of That So Sweet Imprisonment

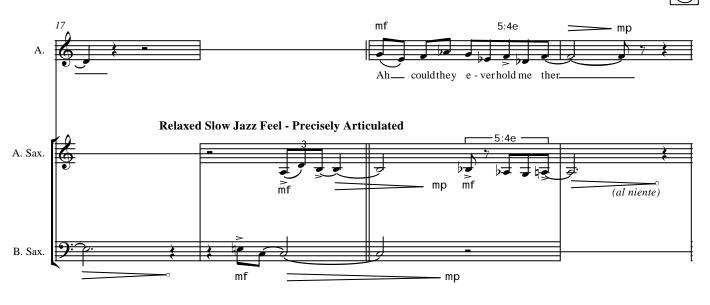


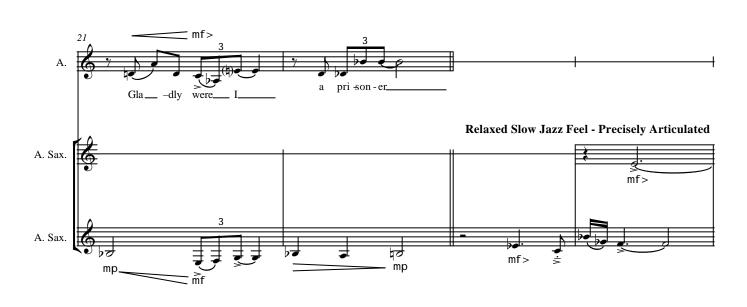








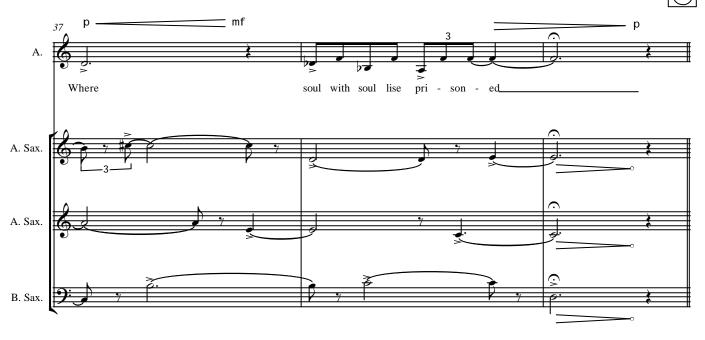




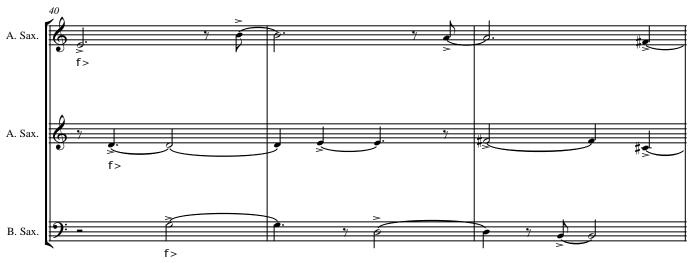


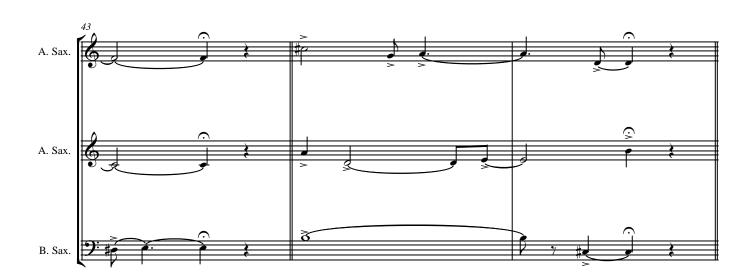


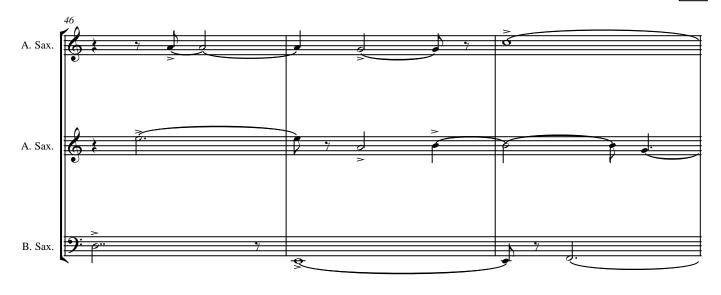


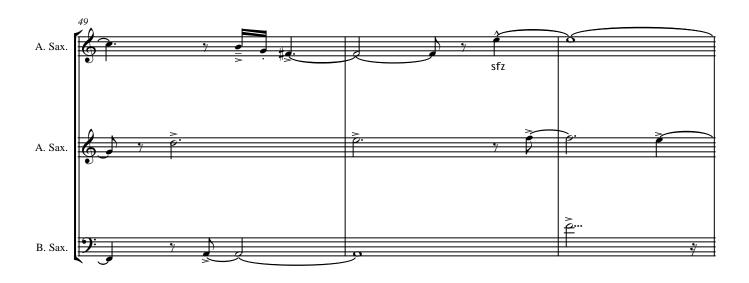


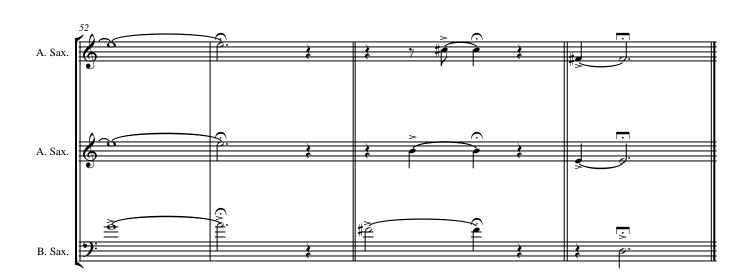
q=40 Rubato - Very Elongated



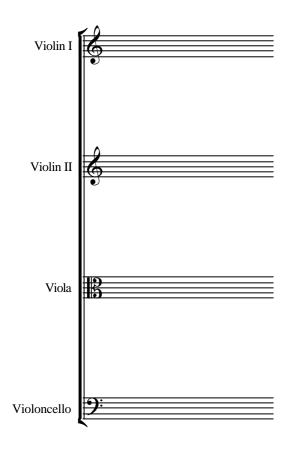








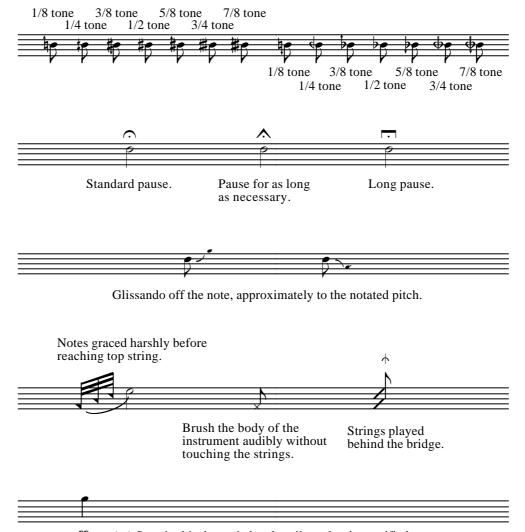
String Quartet No. 2



Eric Egan

12 Minutes

Ont the Notation:

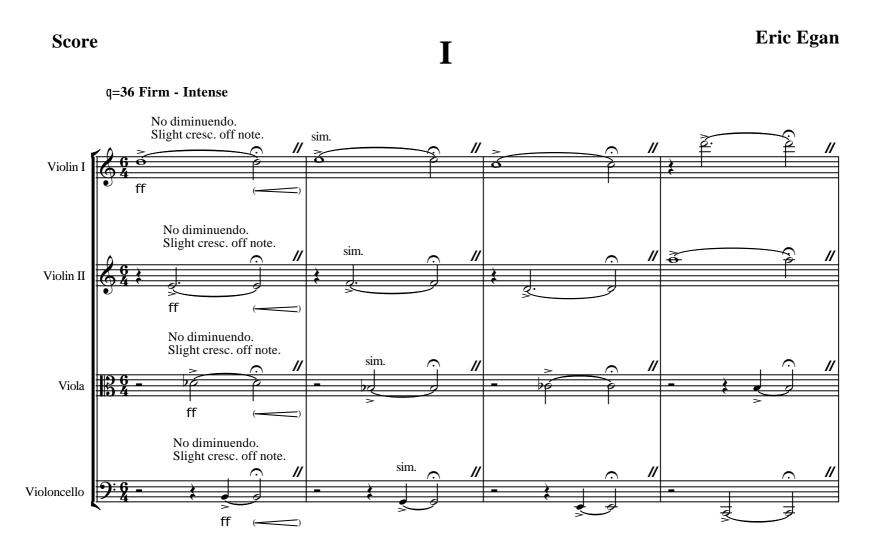


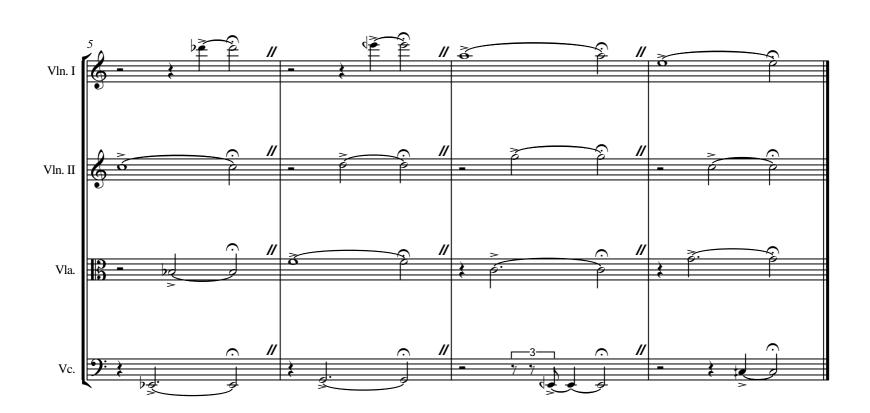
ff> (>) Sustain this dynamic level until another is specified.

Indicates a continued level of intensity.

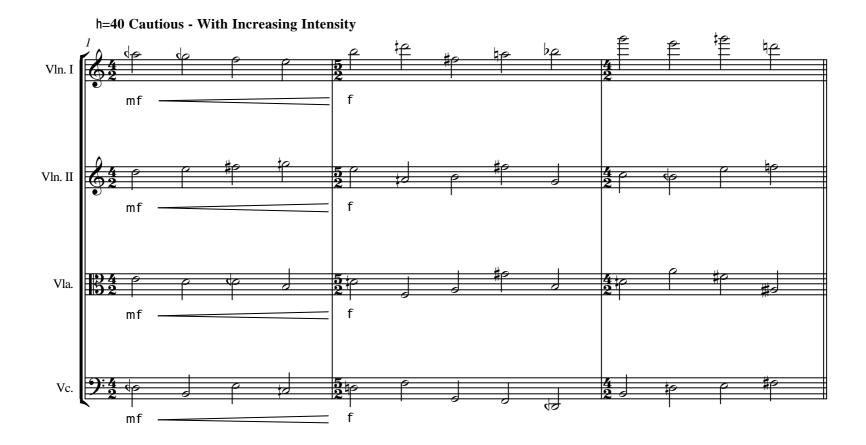
String Quartet No. 2

Premiered by the Momenta Quartet on 12/07-08





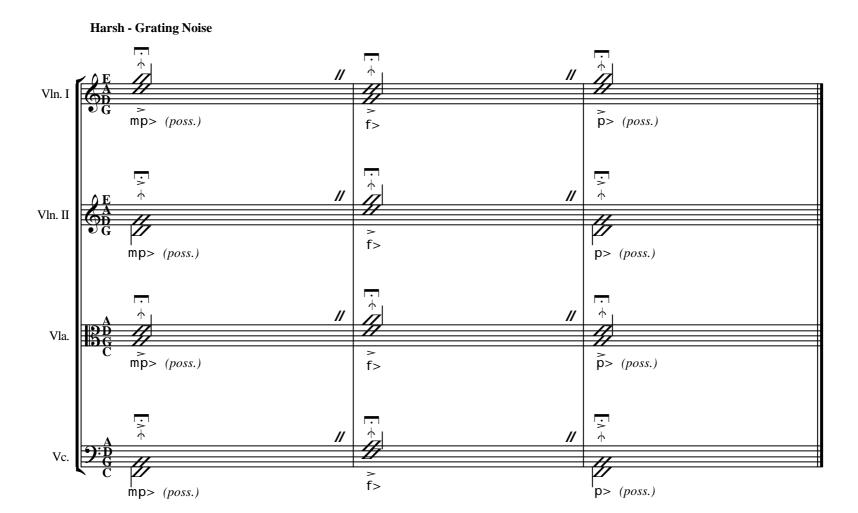
II





III

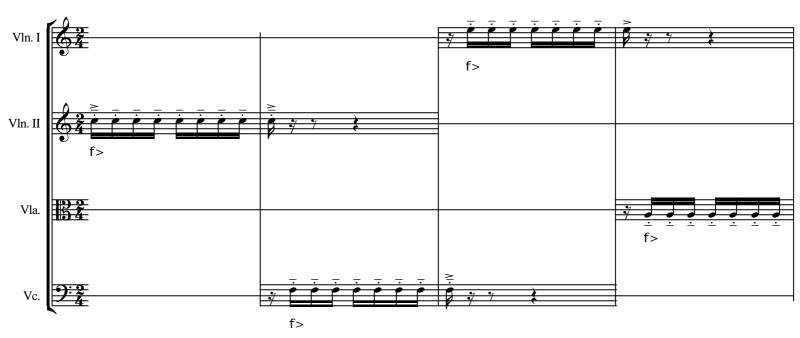
Each performer plays two strings behind the bridge for the duration of the movement. The chords should last for approximately 8 - 10 seconds with a short break between each.

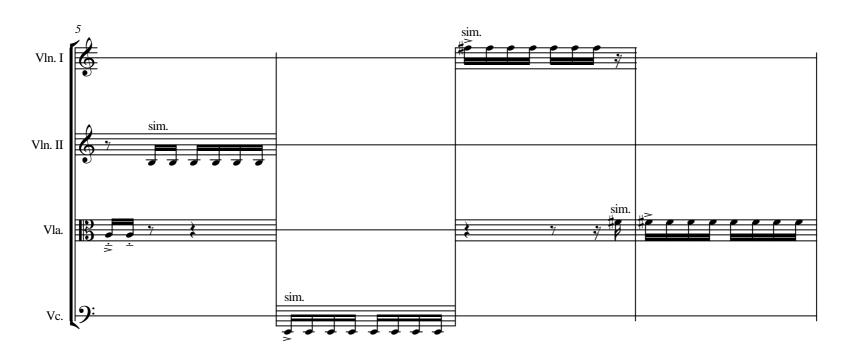


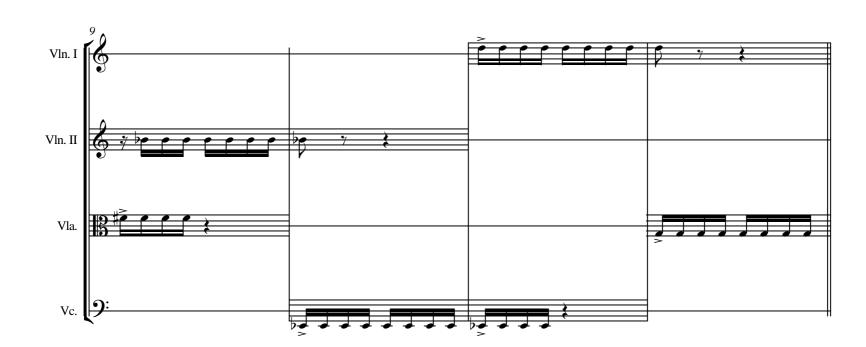
4

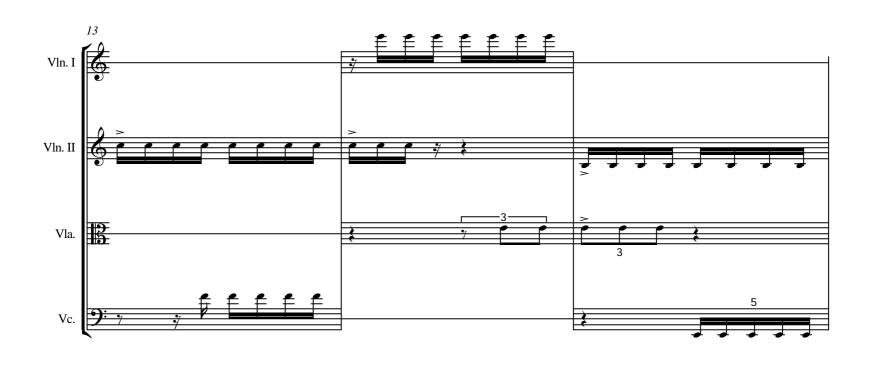
IV

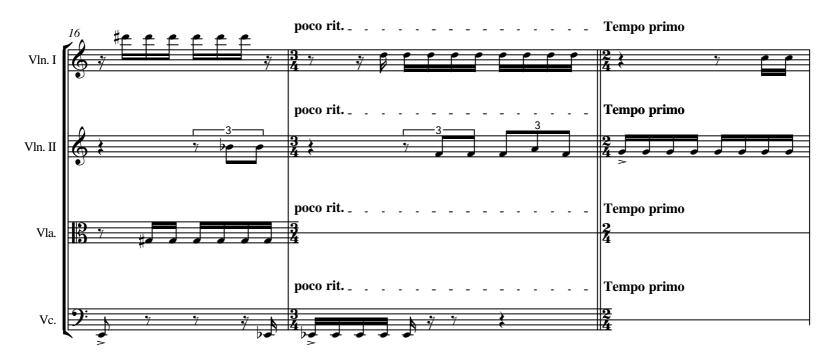
 $q=76\ Firm$ - With Rhythmical Emphasis

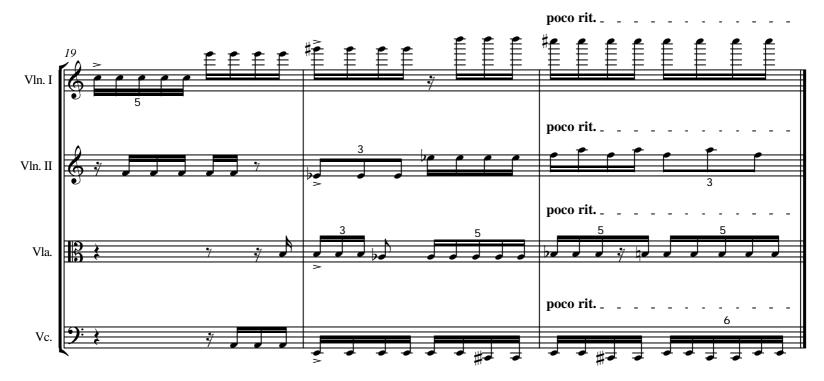








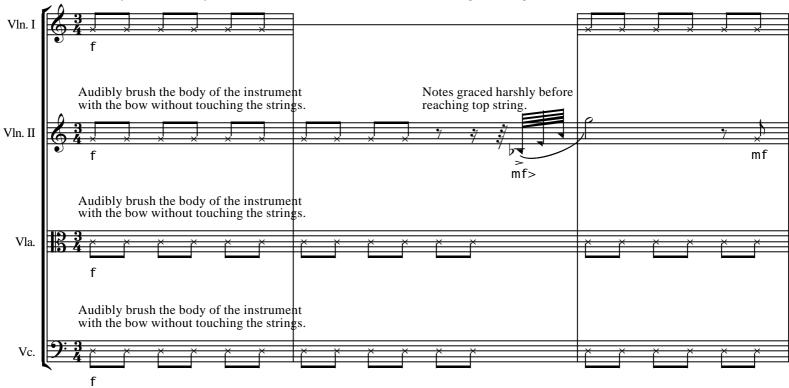


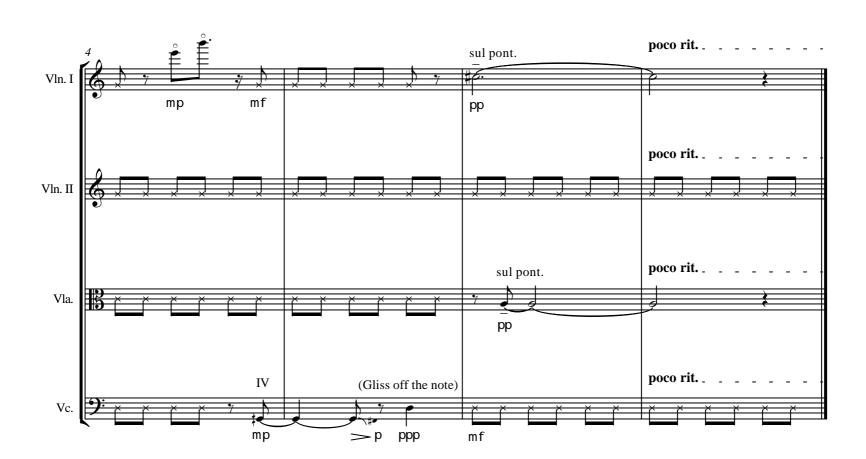


 \mathbf{V}

q=44 Quiet yet Firm

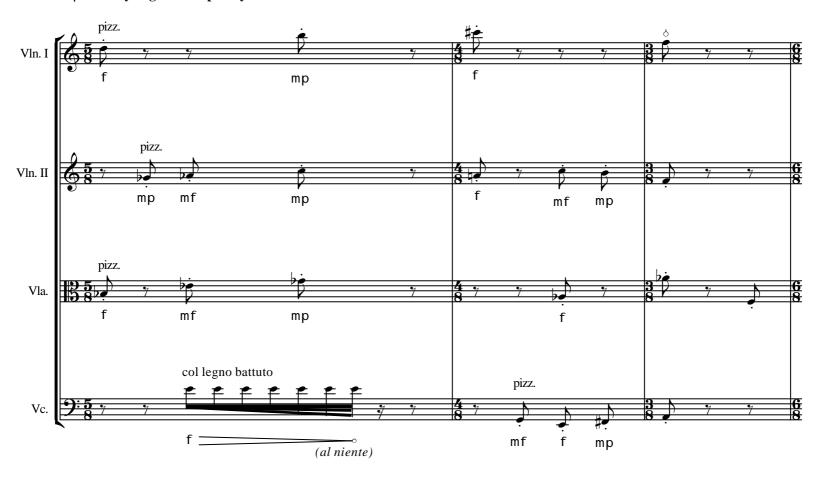
Audibly brush the body of the instrument with the bow without touching the strings.

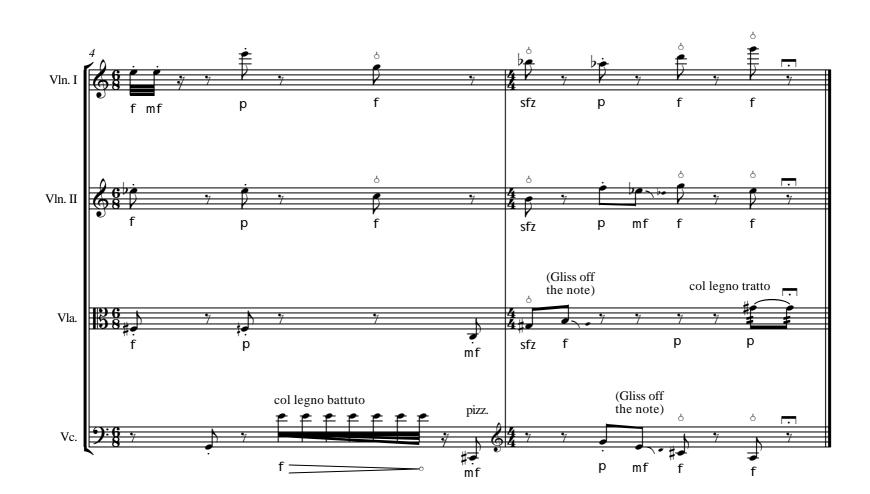




VI

q=72 Very Light and Spritely

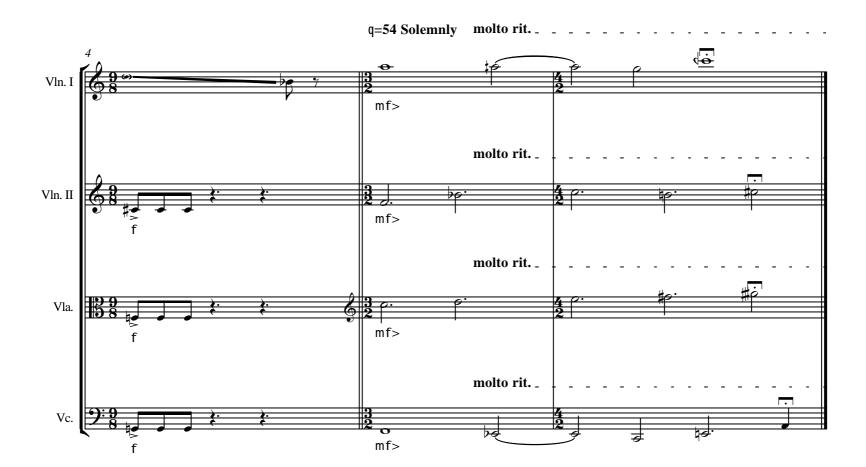




VII

q=76 With 'Mozartian' Optimism







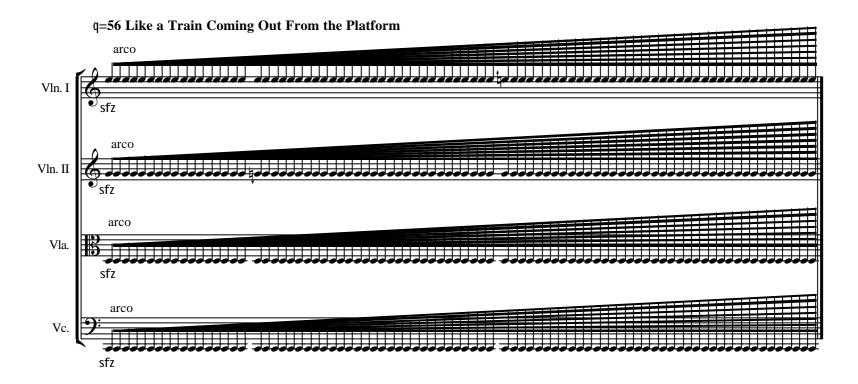
sfz

mf

IX

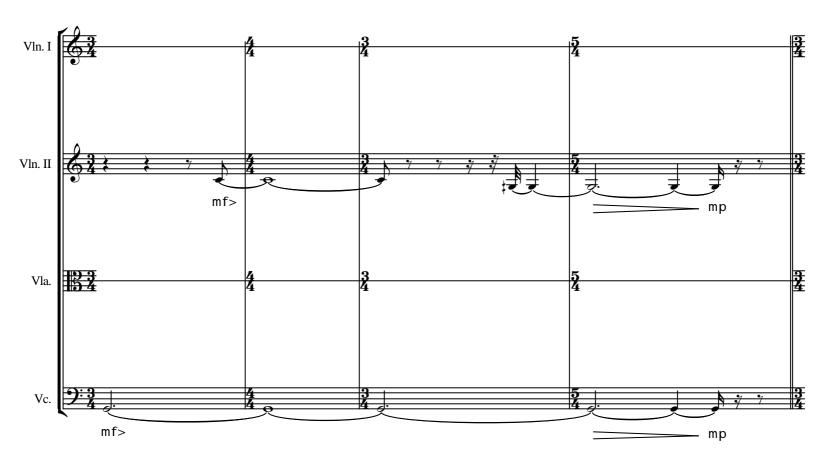
All players start in time and gradually, over the space of ca. 30 seconds, start playing faster and faster, with alternate bowings. When everyone is playing as quickly as physically possible, sustain this for five seconds before coming off together.

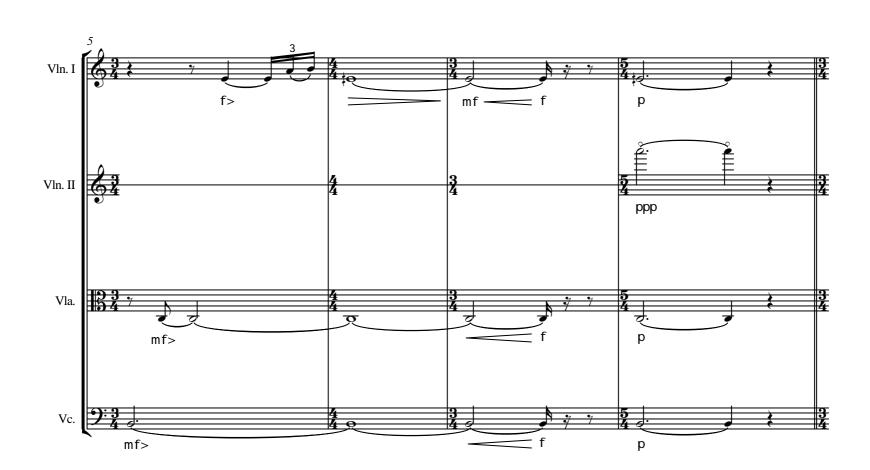
Violins gradually start to tune out. By the end they should have moved a full semitone sharp/flat.

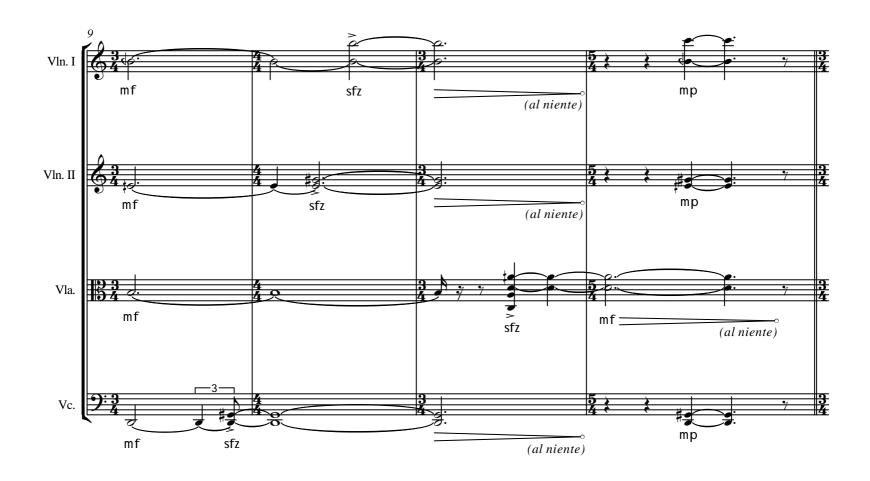


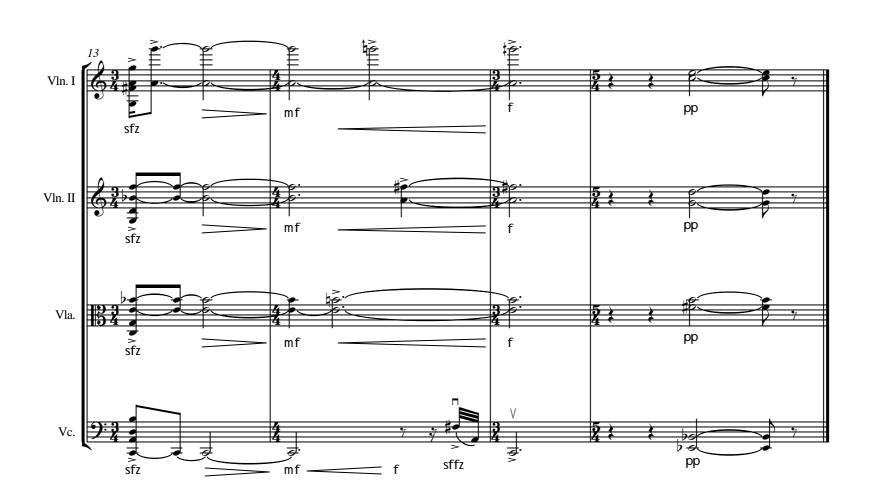
X

q=60 With Anticipation - 'Before the Storm'



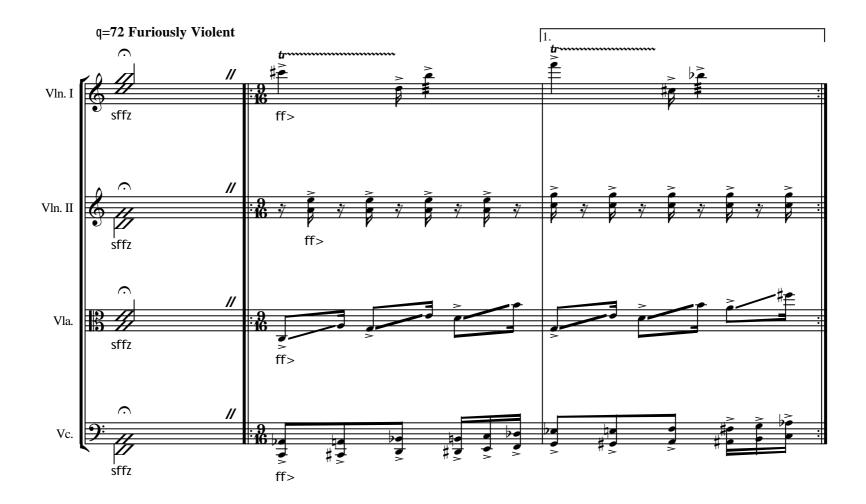


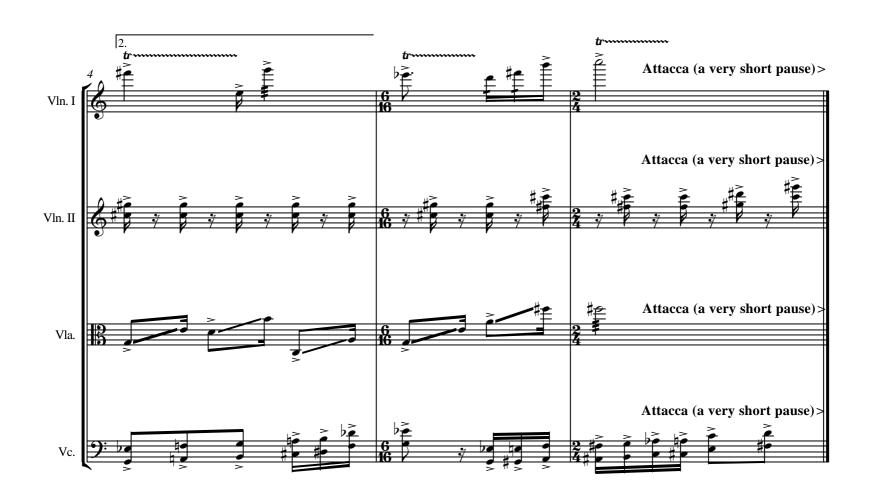




XI

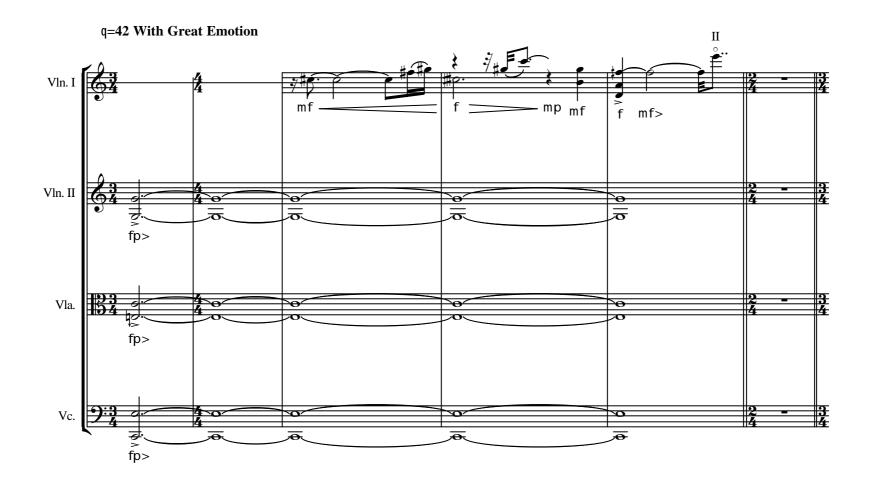
The first chord is the same as the chords in Movement III.

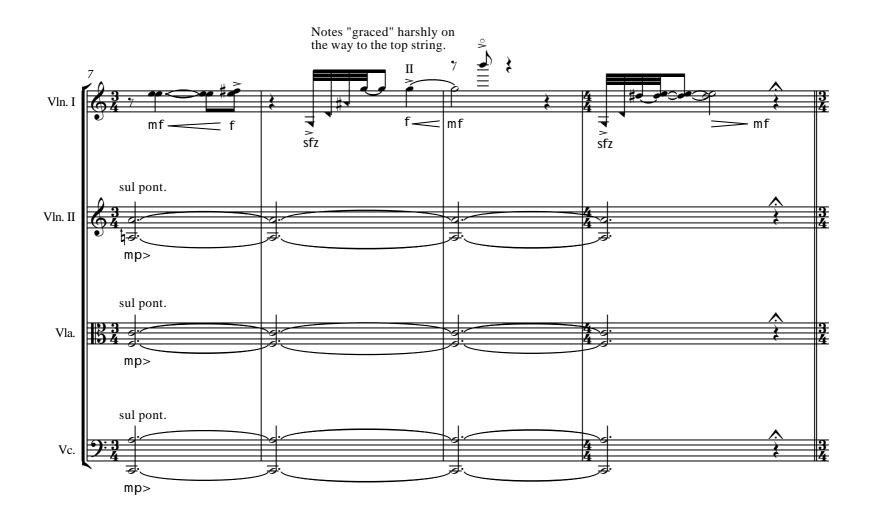


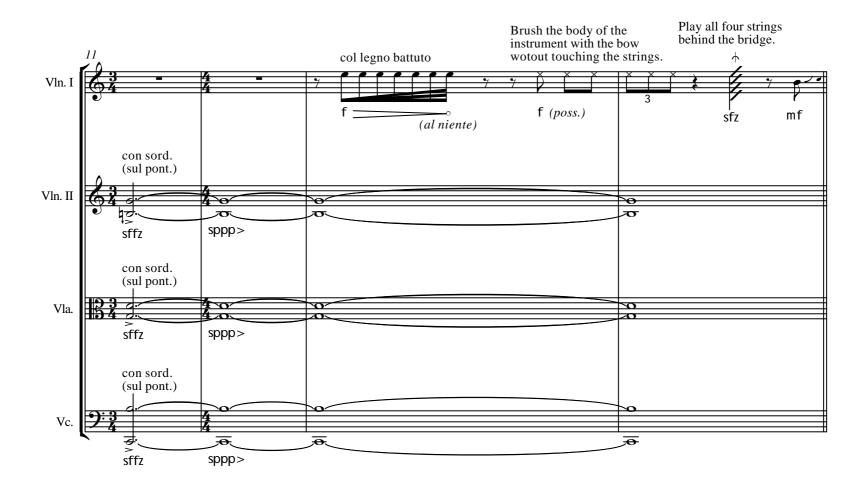


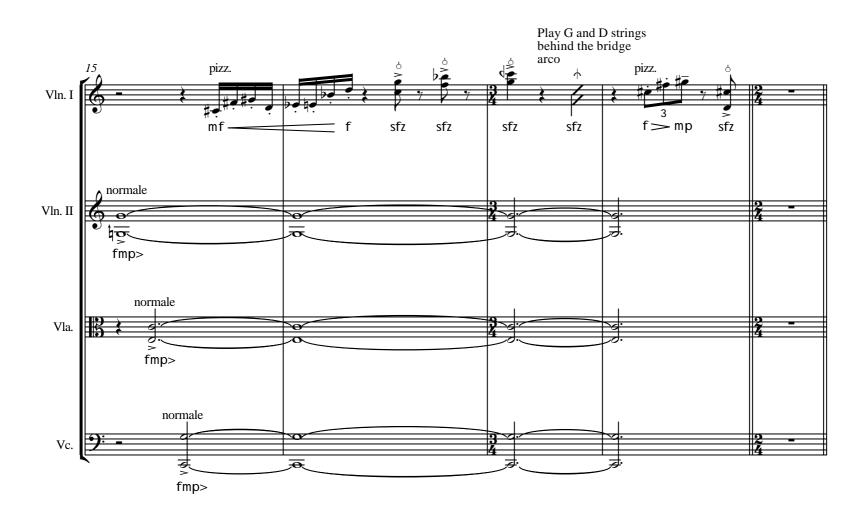
XII

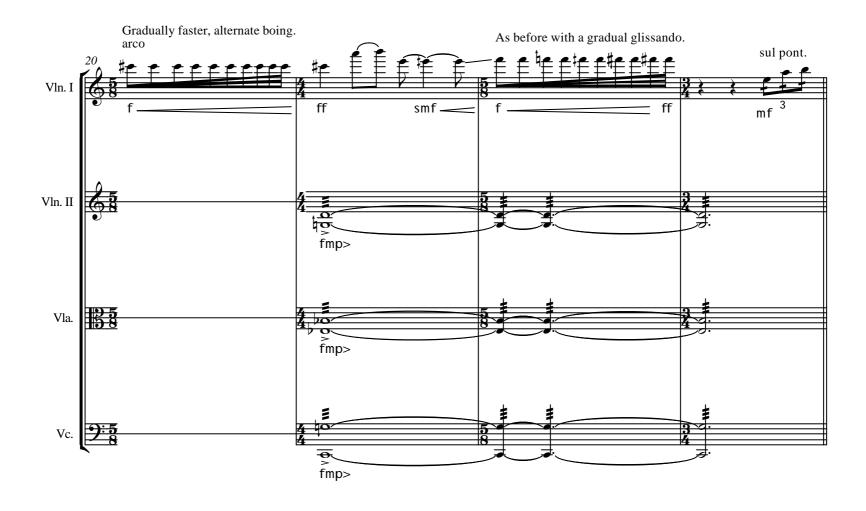
Violin I plays solistically; Violin II, Viola and 'Cello with very little vibrato throughout.

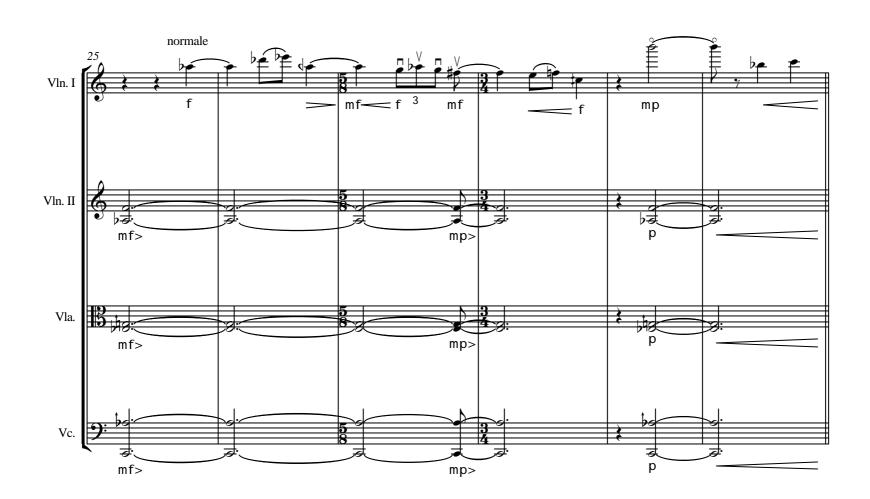


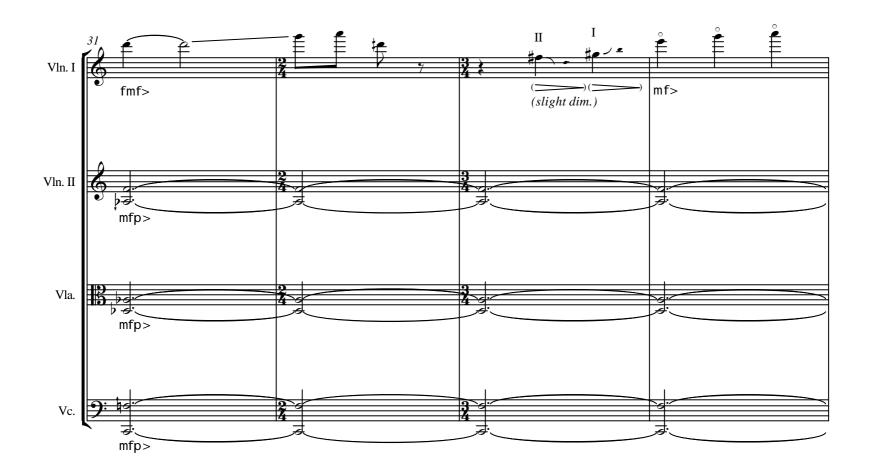


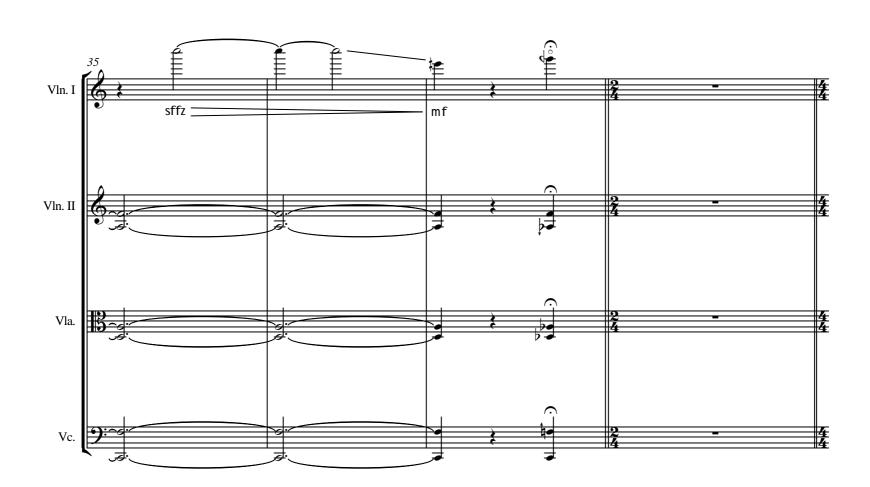


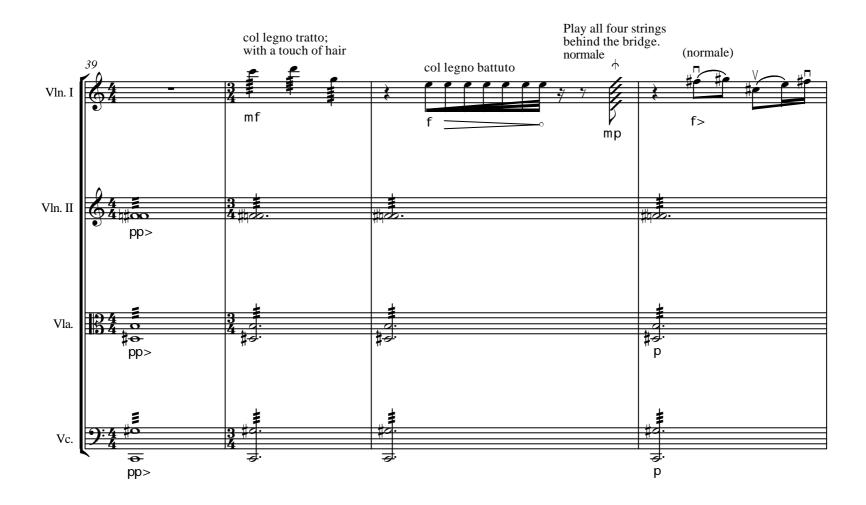


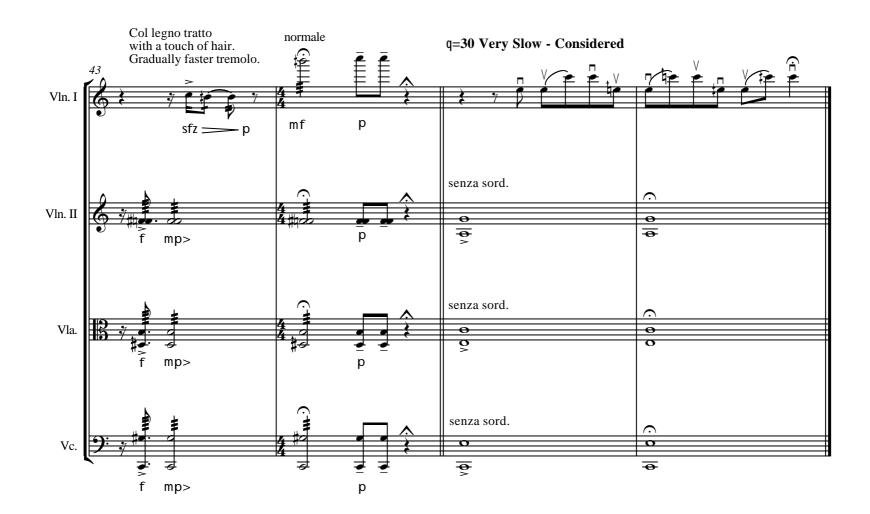




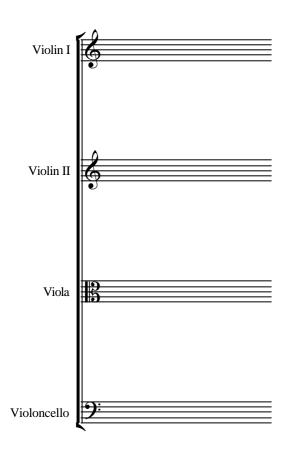






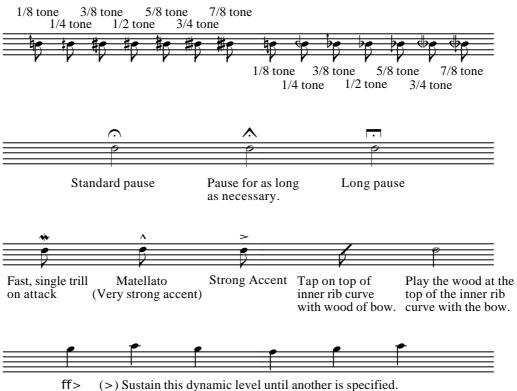


String Quartet No. 3



Eric Egan 10 Minutes

On the Notation:

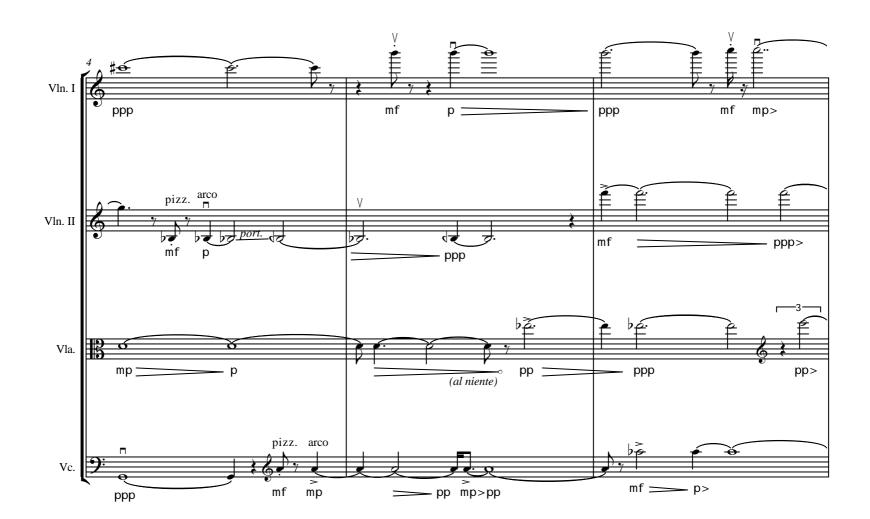


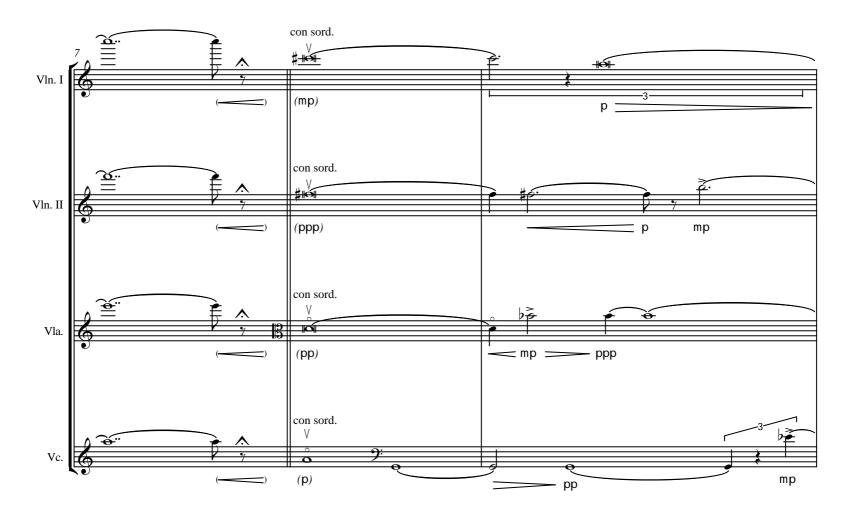
ff> (>) Sustain this dynamic level until another is specified.
Used to indicate a continued level of intensity.

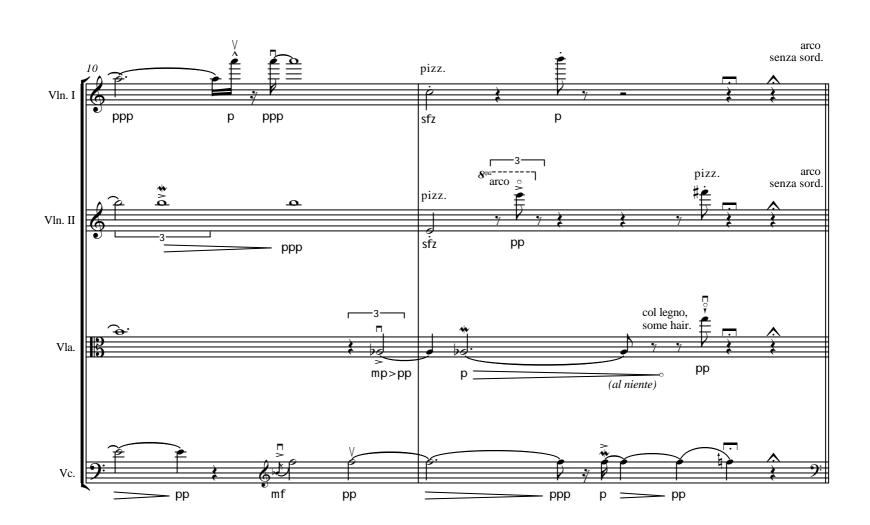
String Quartet No. 3

Score Eric Egan

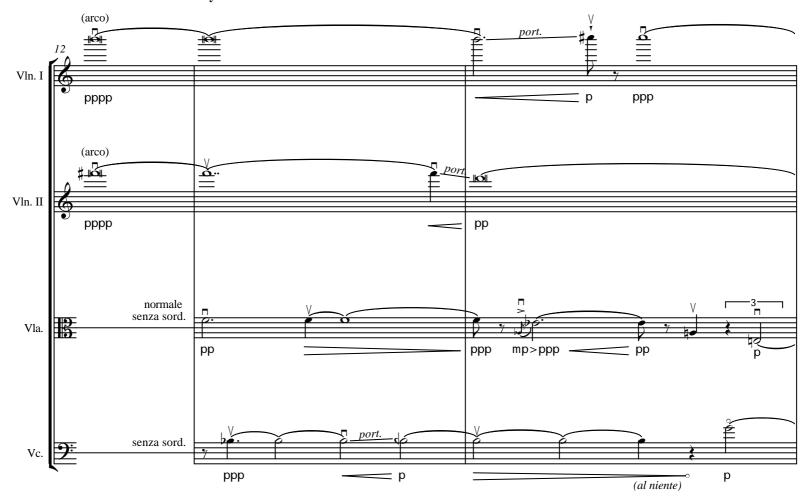


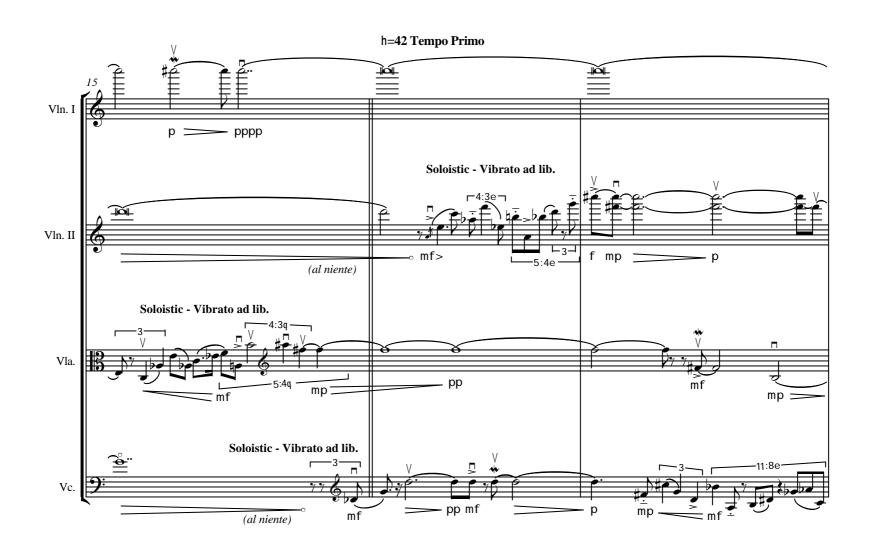


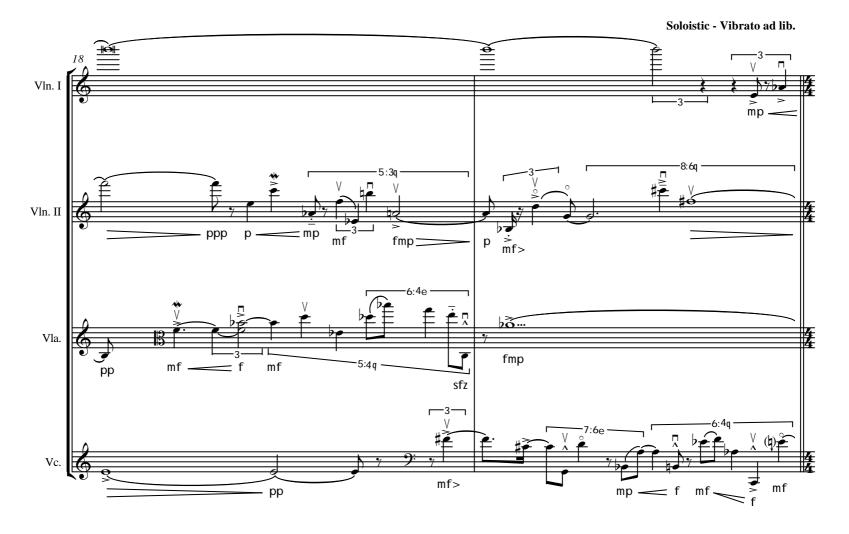




h=38 A little more carefully.







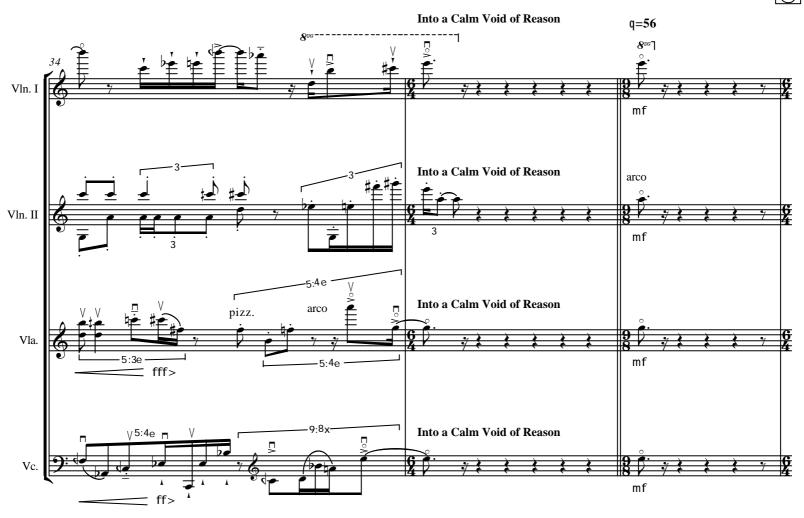


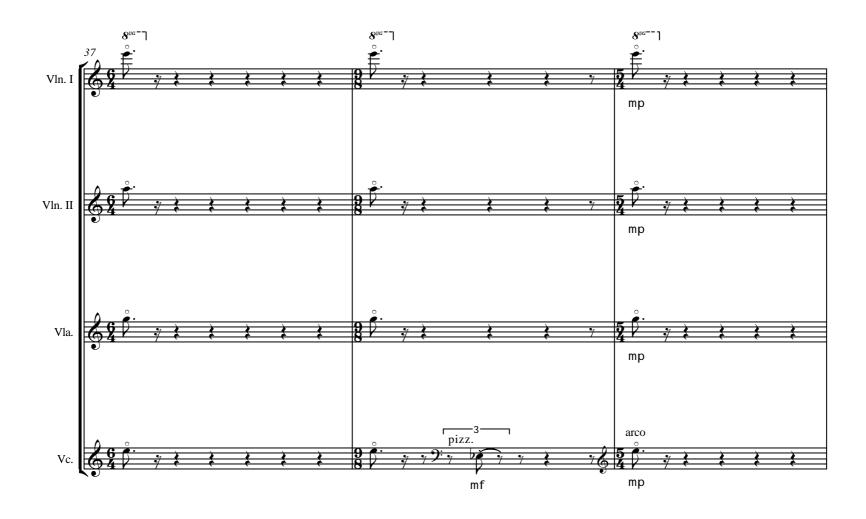


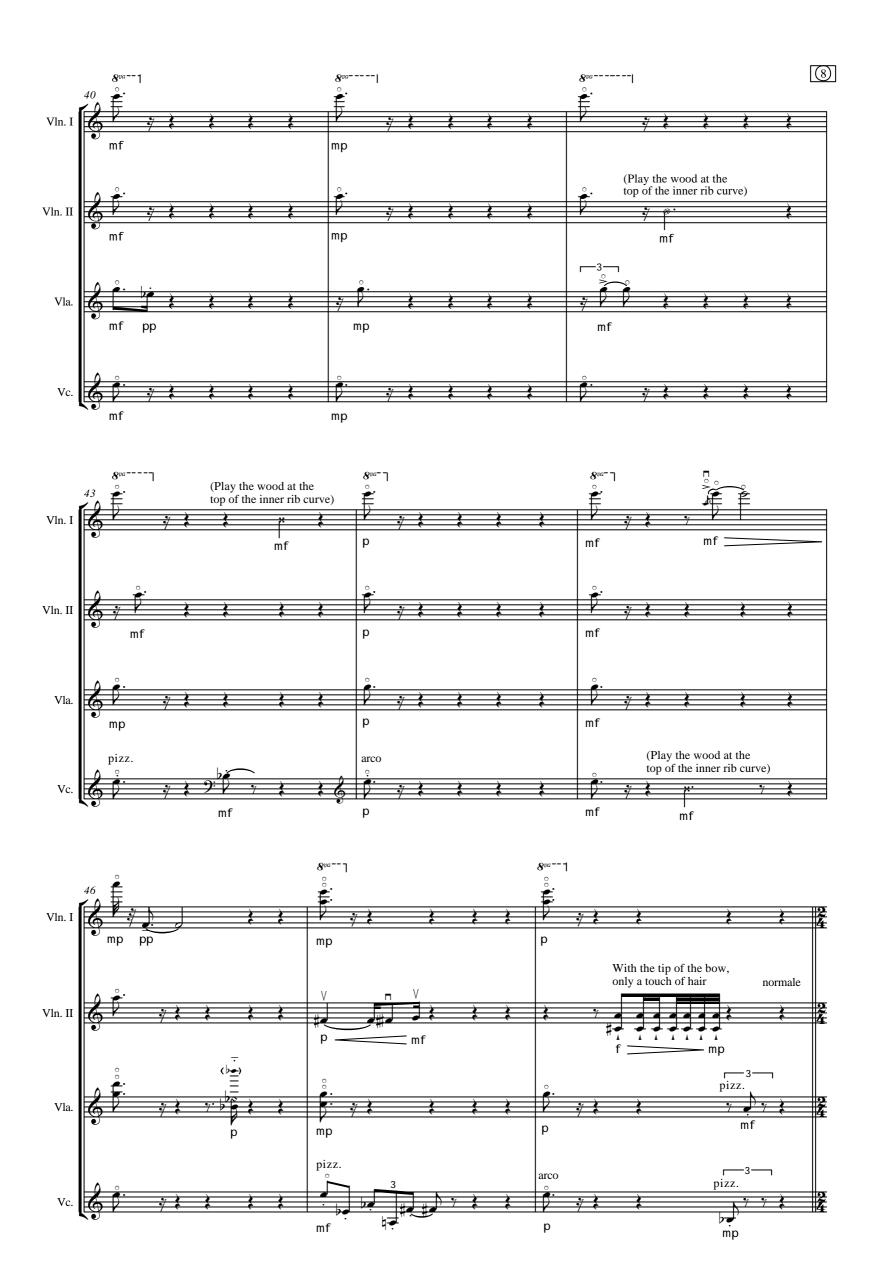


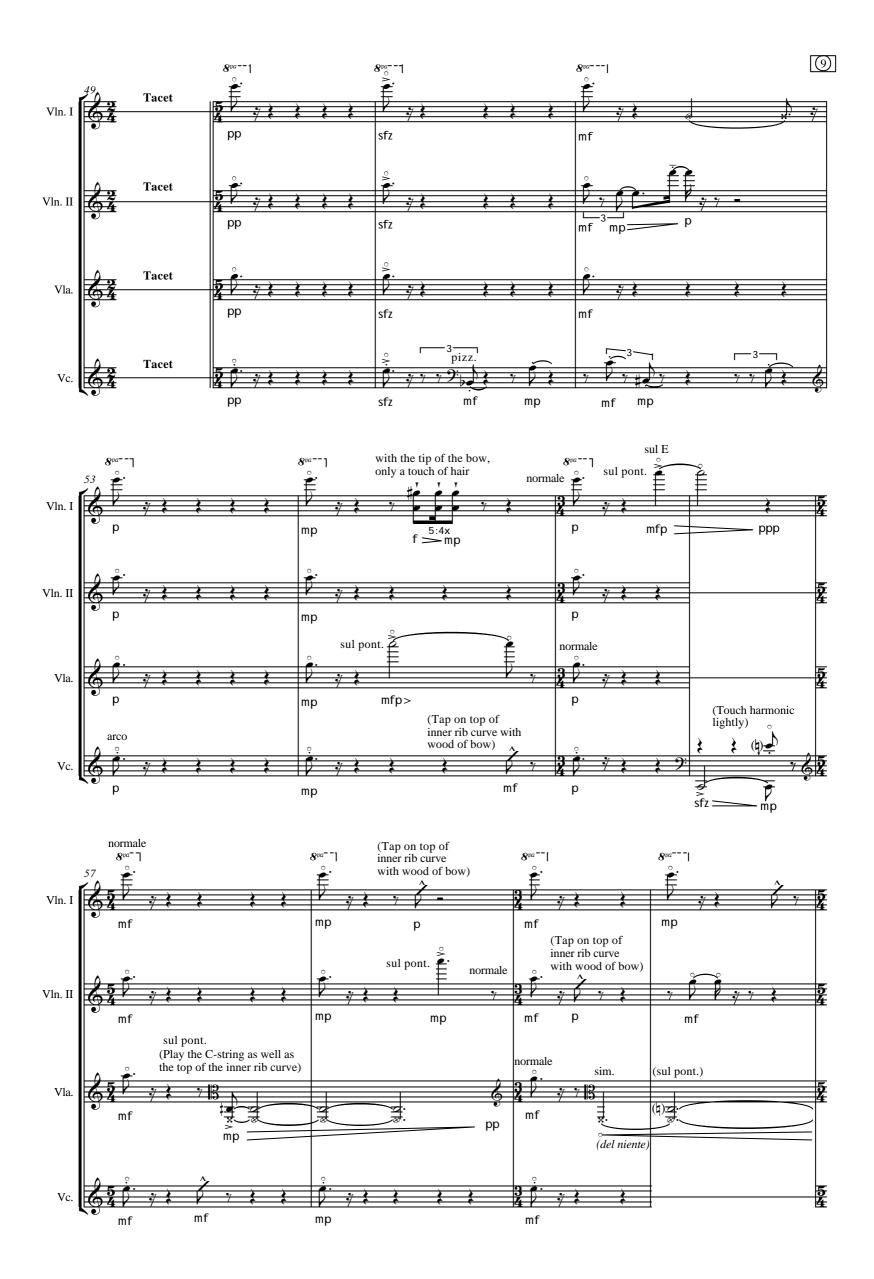


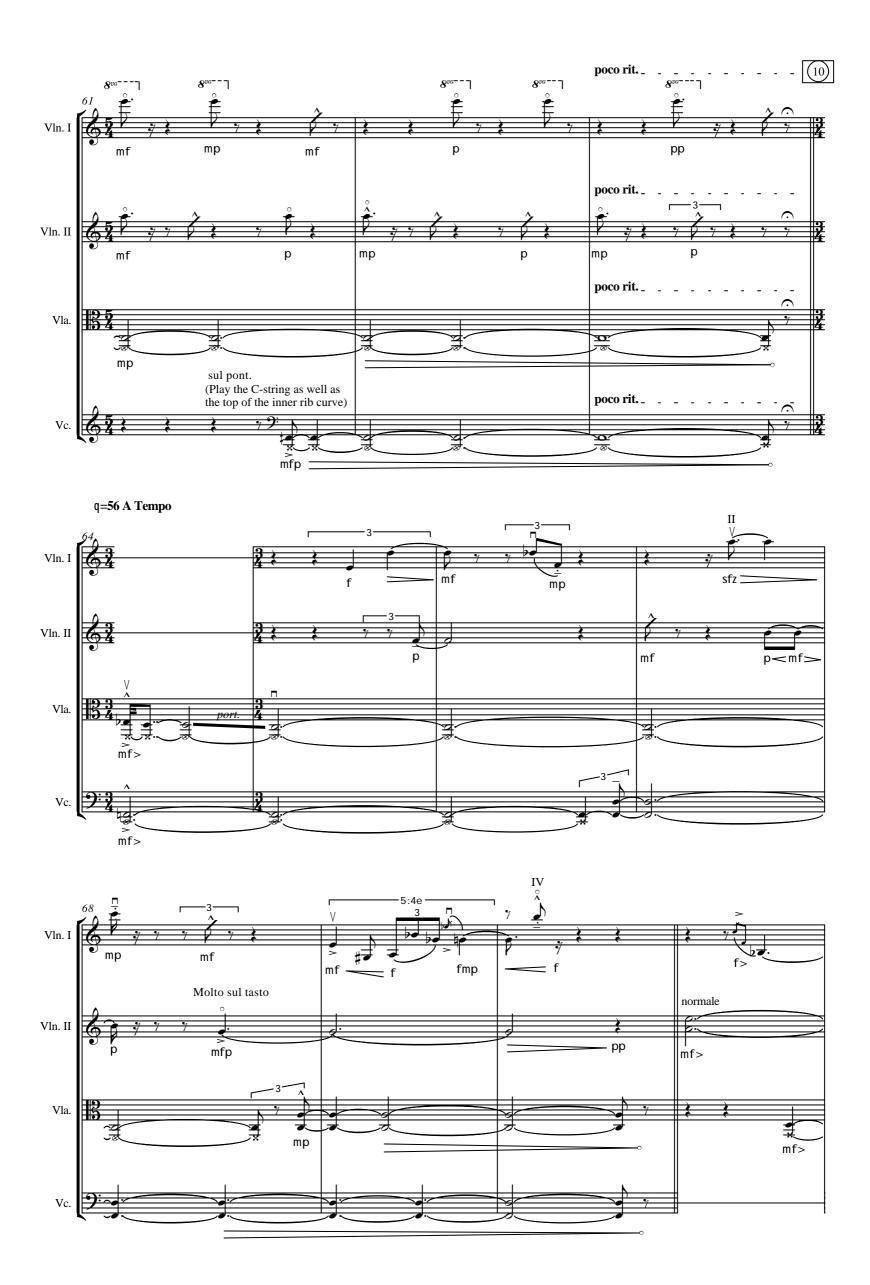




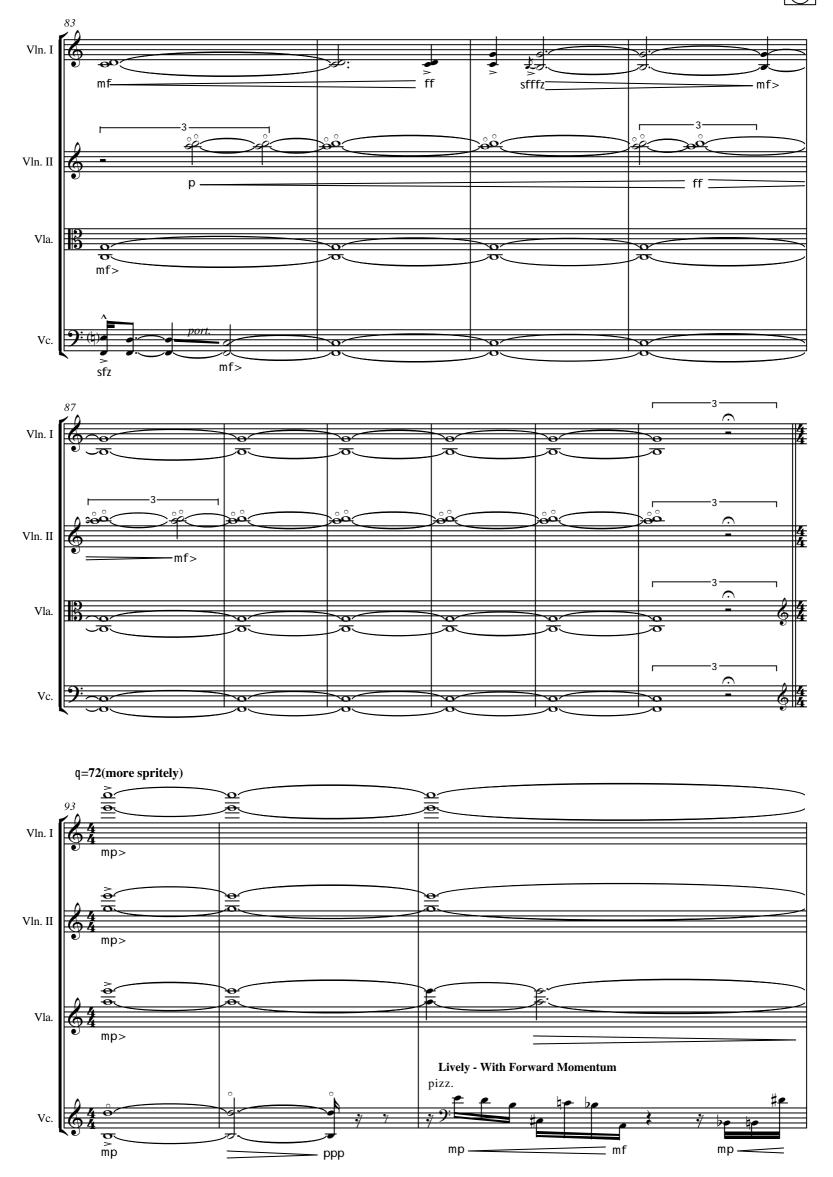










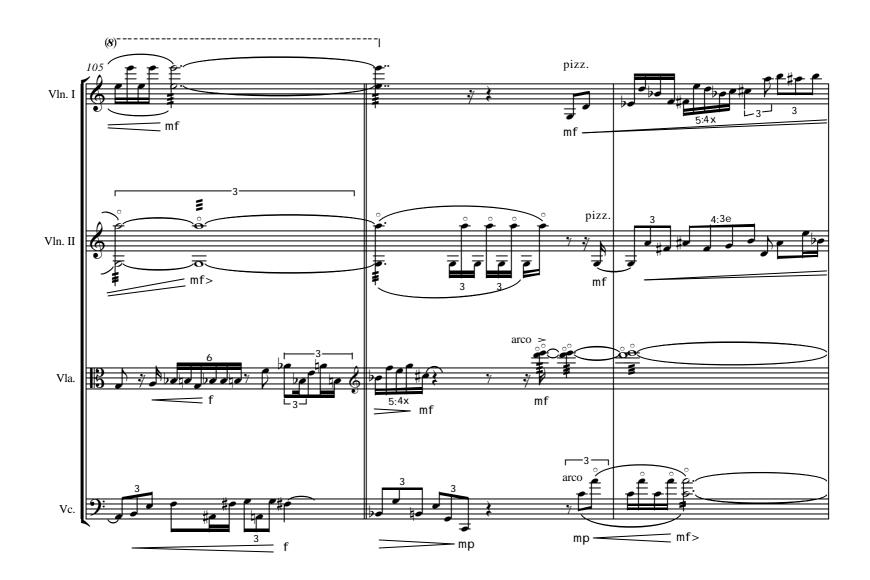




Lively - With Forward Momentum

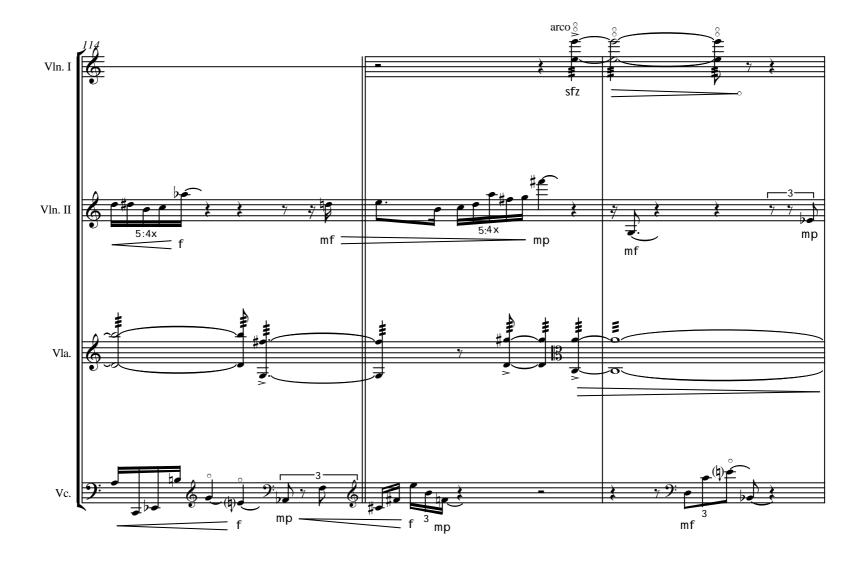




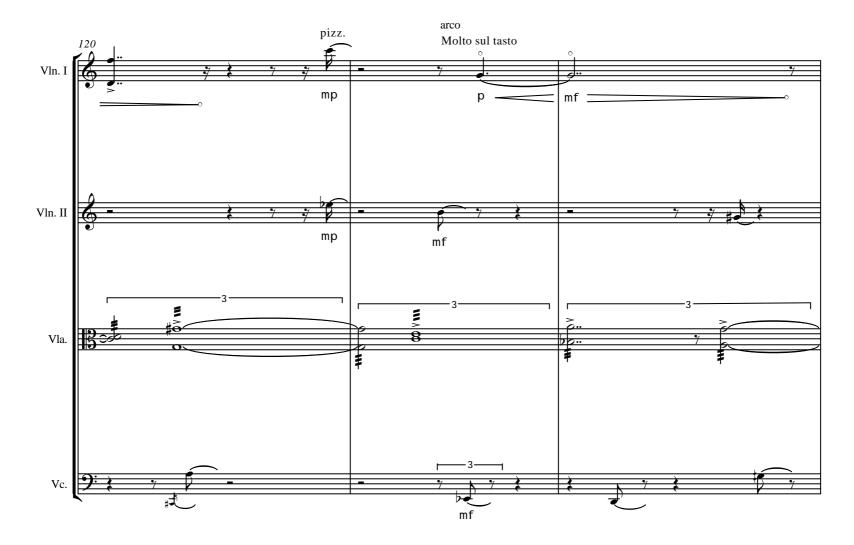


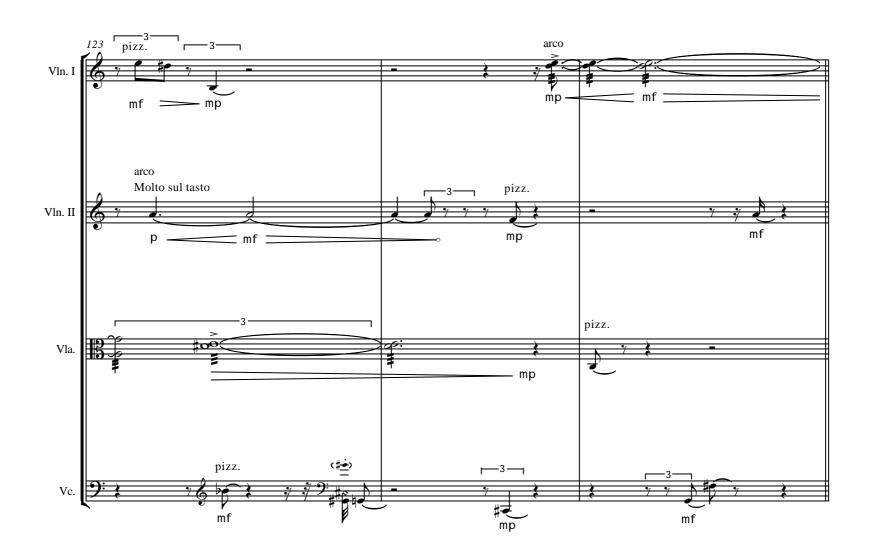


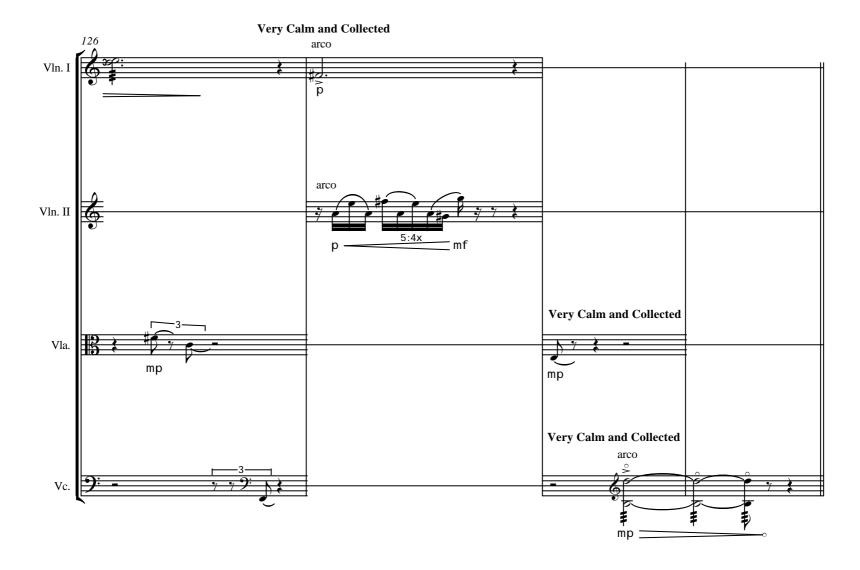


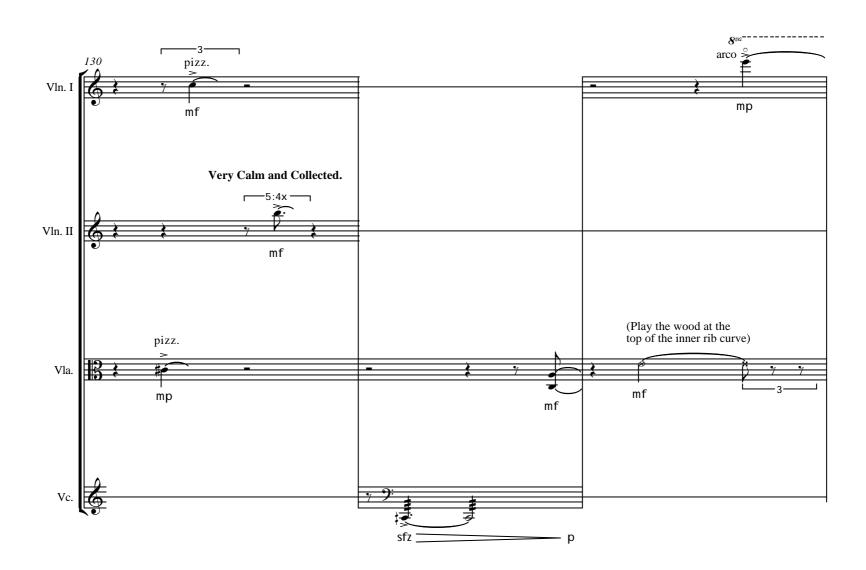


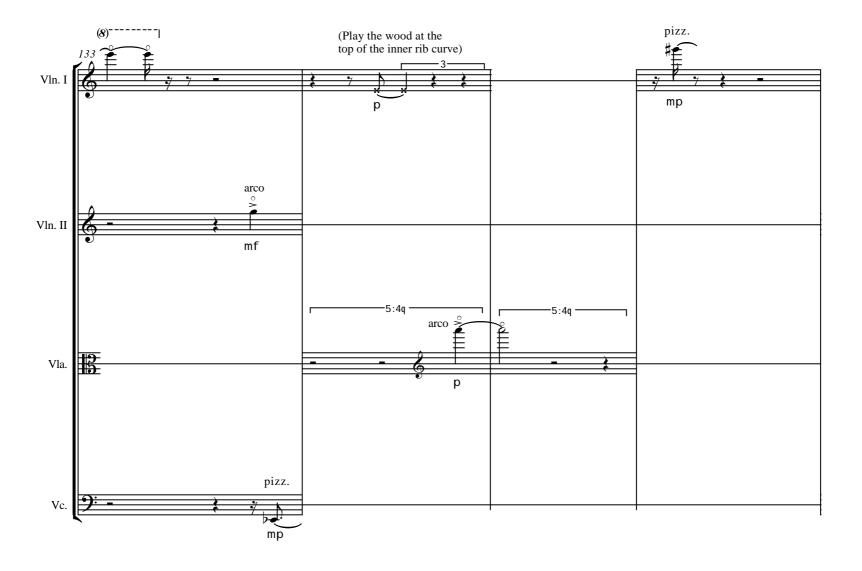


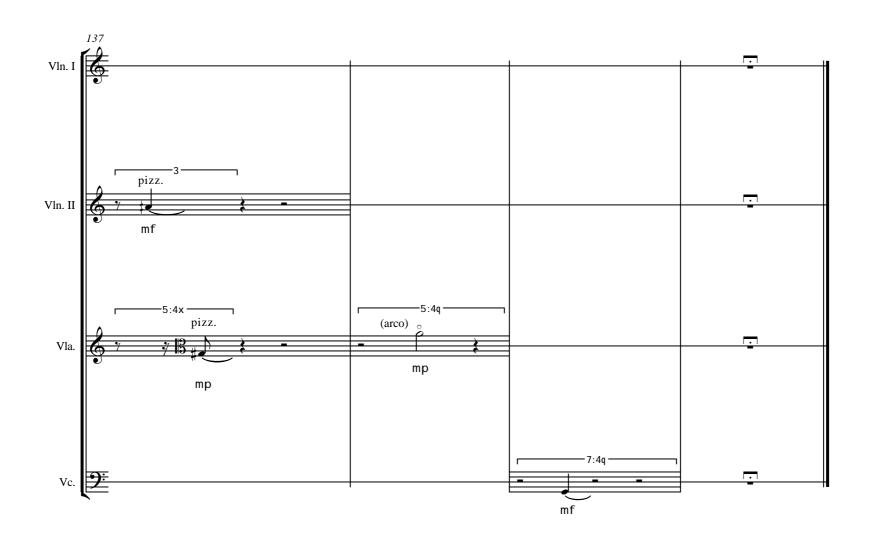












12 Miniatures

- for Amplified Classical Guitar -

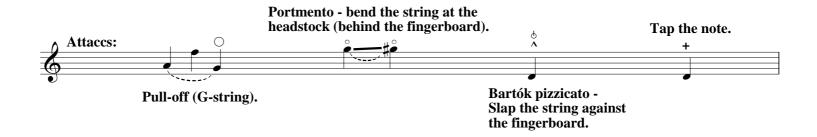


Eric Egan

13 minutes

On the Notation:









1. Slap or Touch Harmonic:

Immediately touch the node after playing the open string or slapping it against the fingerboard. Slapping is indicated with a martellato 'hat' and Bartok pizzicato, touching is written with a legato accent.

2. Re-tapped Harmonic:

With the finger touching the string, tap on the node (again), immediately after it has been played. Done softly, this reinforces the harmonic.

3. Adjacent-String Harmonic:

Produced by bending the adjacent string (in brackets) to pluck the string itself (above) behind the sound hole. The finger holding the adjacent string must touch the string itself (coming from underneath) immediately after it has been plucked. If it is done correctly the harmonic itself will sound louder than the open string.

On the Amplification:

Amplification through four speakers, placed at the four corners of the audience is preferable. Front amplification with a stereo pair is also acceptable. There are four levels of amplification; the levels change between most movements. While the quiet movements are to be more heavily amplified, they should nonetheless be a lot quieter than the louder movements.

- a. Low Level: The guitar needs only some amplification as it is a very loud movement.
- **b.** <u>Medium Level:</u> The guitar requires a moderate amount of amplification.
- c. <u>High Level:</u> The guitar needs significant amplification as it is a fairly quiet movement.
- d. Very High Level: The guitar requires heavy amplification as it is a very quiet movement.

12 Miniatures for Guitar

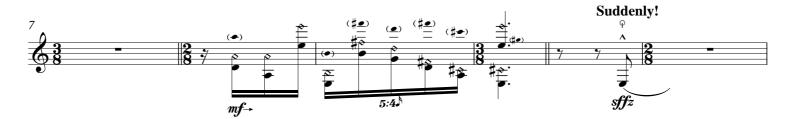
- for Amplified Classical Guitar -

I (c)

All notes are sustained until the string is re-struck.

>=52 Careful - Gentle but Purposeful





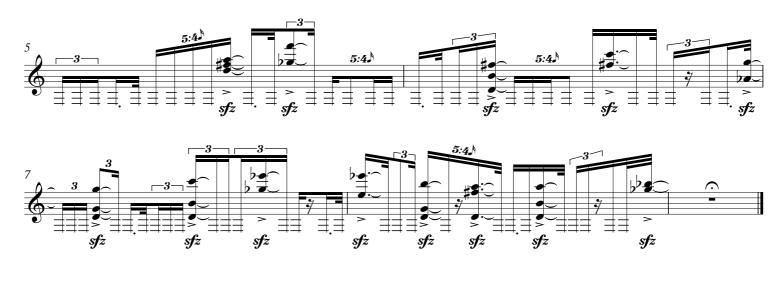




II (b)

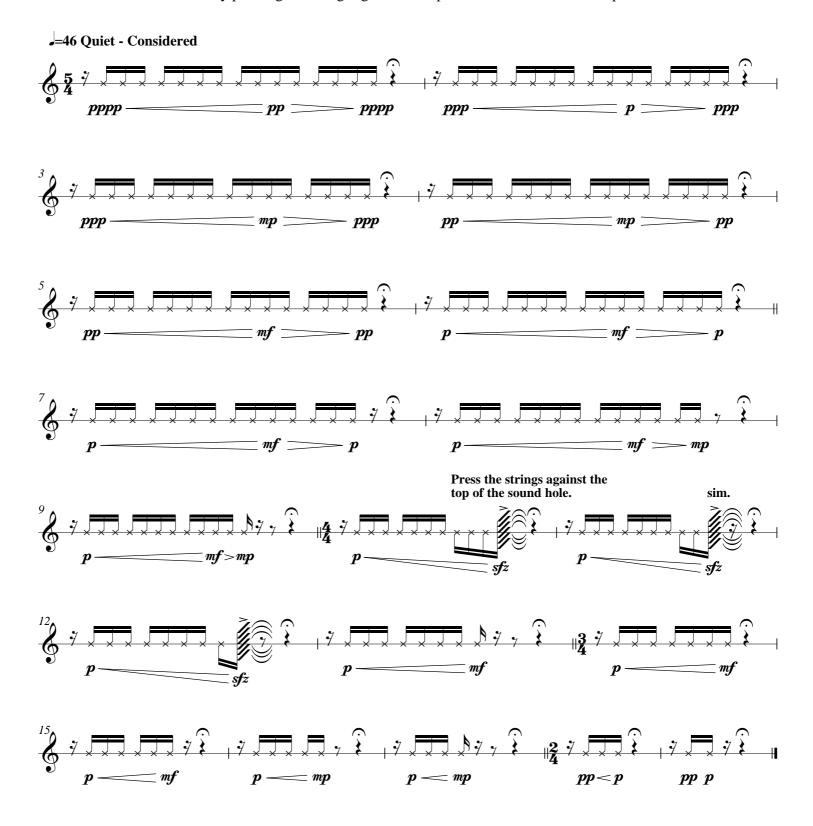
The open E is repeated. Each Chord is sustained.



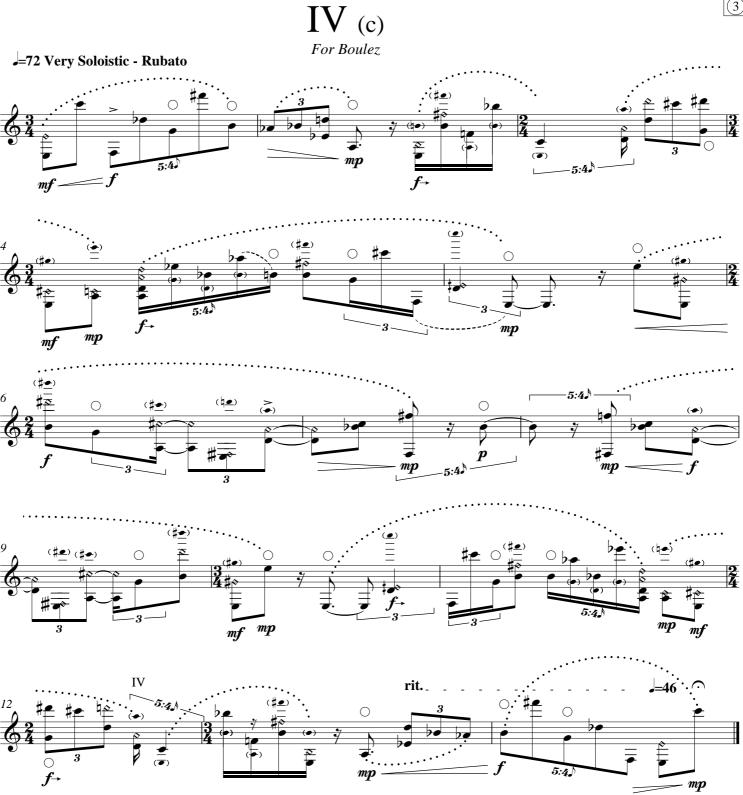


III (c)

The gestures are produced by 'bouncing' the palm of the hand against all of the strings over the centre of the sound hole. The 3 chords are executed by pressing the strings against the top of the sound hole with the palm of the hand.





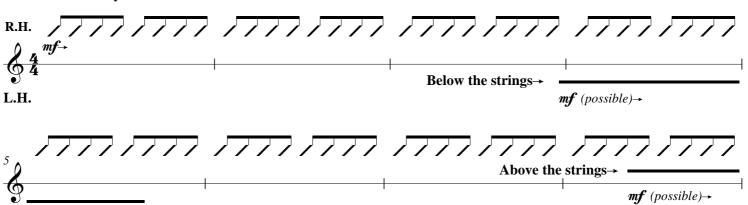


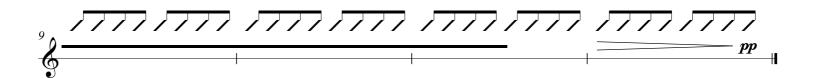
V (d)

For George Brecht

With the pad of the middle finger of the right hand, 'grind' the high E-string regularly backwards and forwards over the space of about a centimetre, near the bridge, at the tempo stated. The left hand gently but audibly strokes the body of the guitar above and below the strings with a cloth.

J=72 Theatrical yet Serious





VI (b)

'Slap' the open string against the fingerboard and immediately touch the node to produce the harmonic.

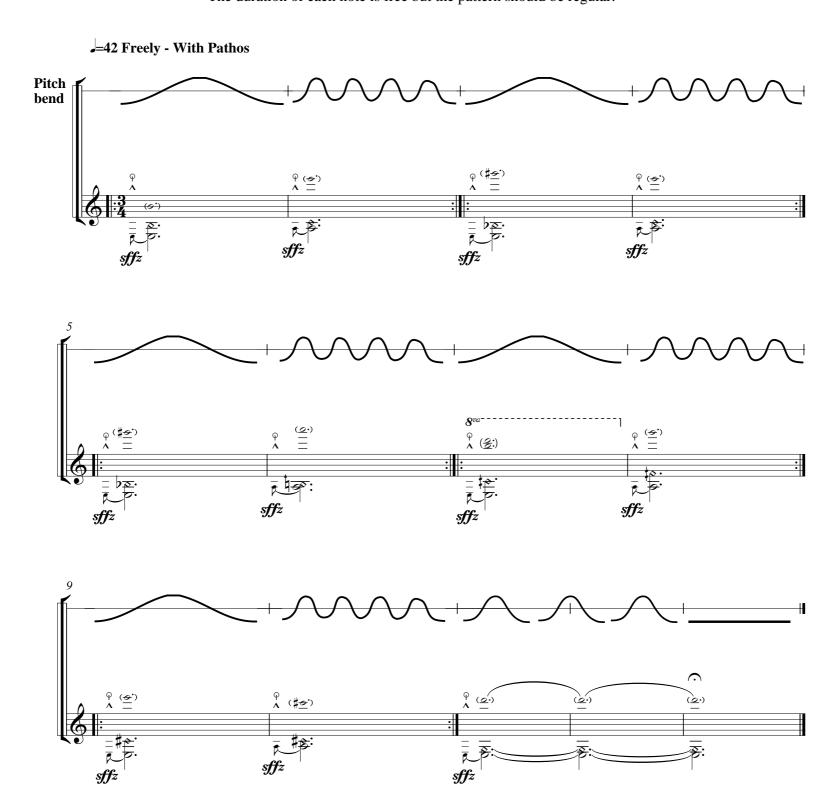
The E-string should be plucked with the thumb, the A-string with the index finger of the right hand.

The pitch bend is produced by bending the neck towards the body slightly, following the notated indications of speed.

Alternatively it may be produced by bending the string at the headstock, behind the fingerboard.

Each note should be allowed to ring until the string is played again.

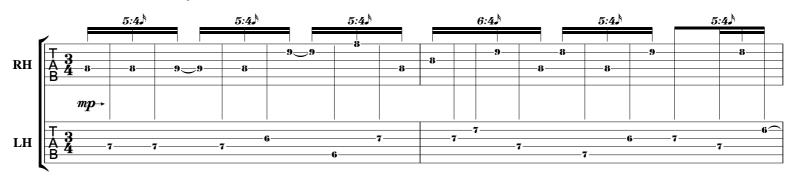
The duration of each note is free but the pattern should be regular.

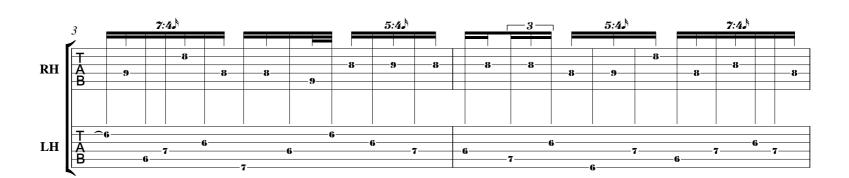


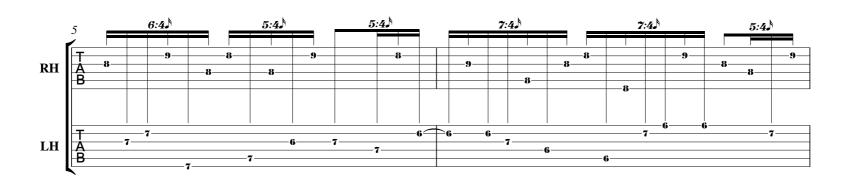
VII (d)

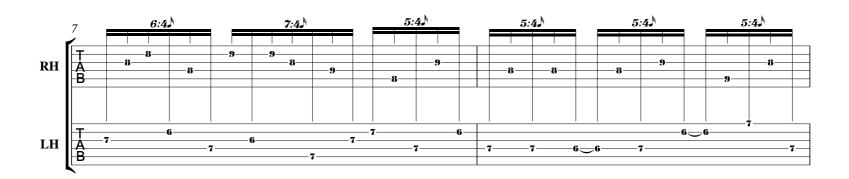
Both hands tap on the 6th to 9th fret. The left hand taps the 6th and 7th, while the right hand taps the 8th and 9th. It is essential that a forward momentum is sustained throughout, particularly from bar 12 onwards.

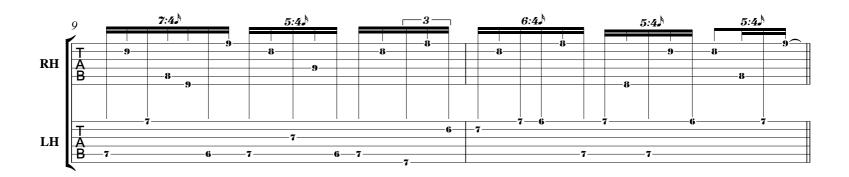
J=104 Fast - Hectic yet Effortless



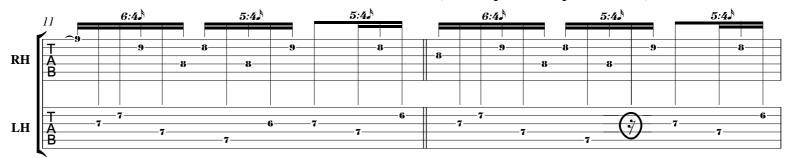


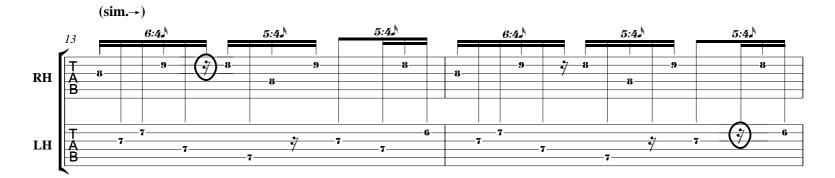


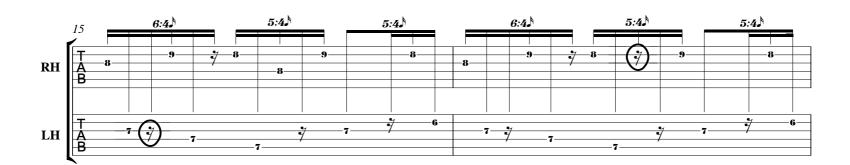


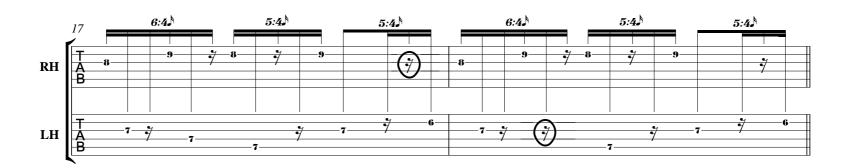


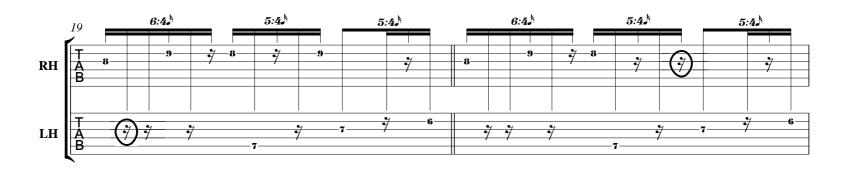
(Near Repeat of the previous bar!)

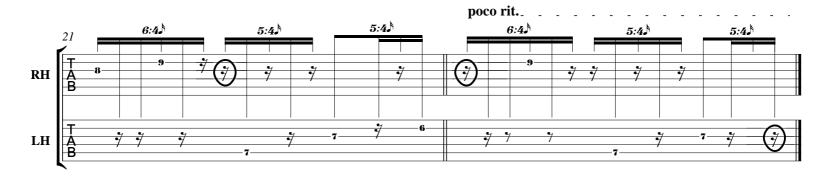










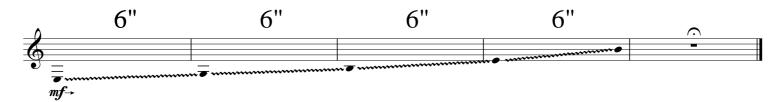


VIII (c)

For Marcel Duchamp

Draw the nail of the middle finger of the right hand along the low E-string slowly, from the top of the neck to the sound hole, making a distinct scraping sound. Try to make the sound as even as possible by ensuring that the pace is steady. Follow the speed and spatial directions stated. When you reach the end of the fingerboard dampen the strings immediately. The movement should last for 24 seconds in all.

J=60 Even Pace - Steady and Gradual



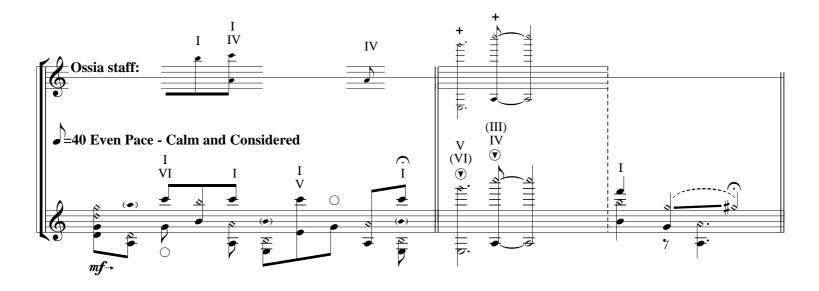
IX(d)

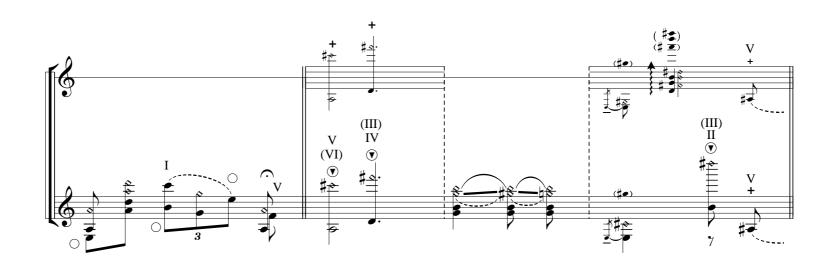
For György Kurtág

All notes should be sustained until the string is re-struck.

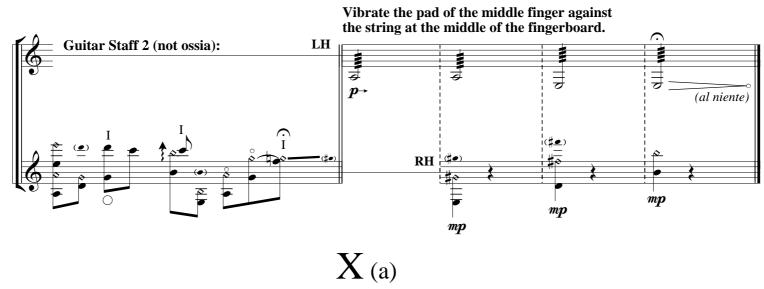
Ossia staff above until the final system.

Each passage (within the double bar lines) should be phrased 'naturally', ad libitum .







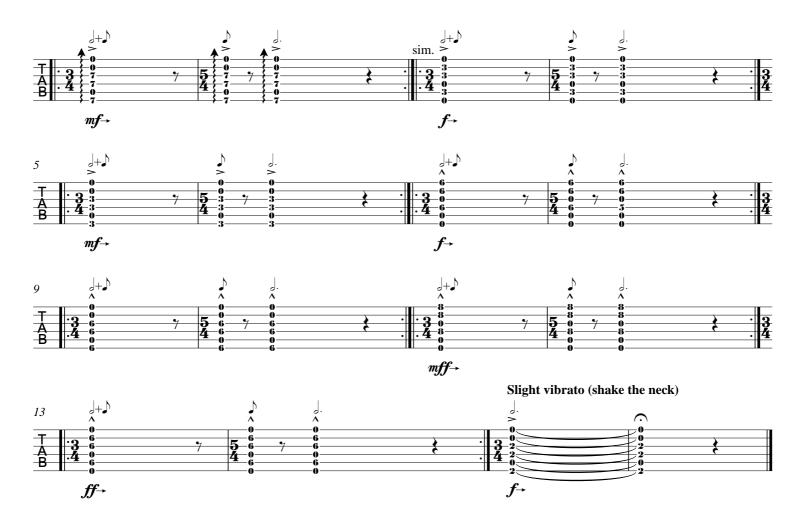


Play softly with the pad of the thumb for the accented chords and with the nails for the martellato accents.

All chords should be broken rapidly from the low to the high E-string.

Always dampen the chords for the rests.

J=84 Loud - With Intense Forward Momentum



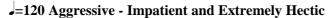
Press the strings

XI (a)

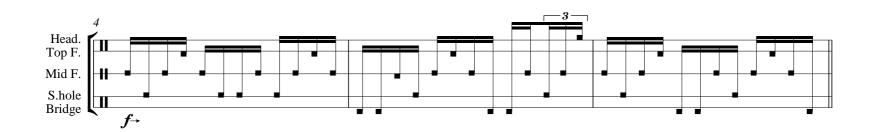
The diagonal note head indicates a rapid broken chord from the lowest to the highest string.

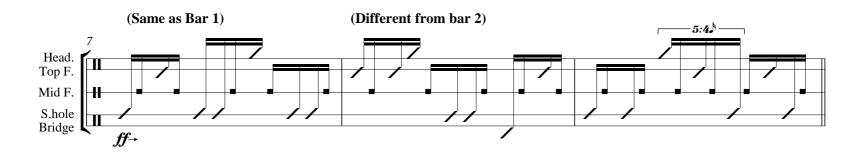
RH - with the back of the fingernails, LH - with the front.

The square note head indicates a strike with the palm of the hand against the strings.

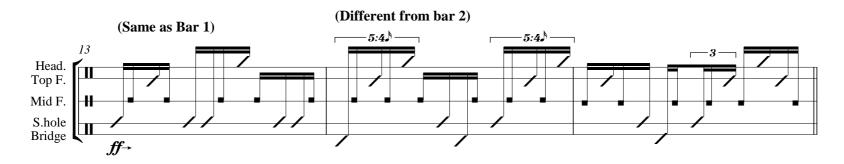


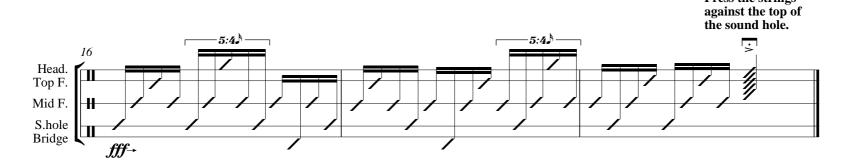












XII (c)

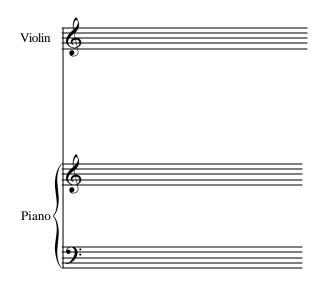
1=60 Careful - Gentle and Kind



1

Non-Stable Equilibrium

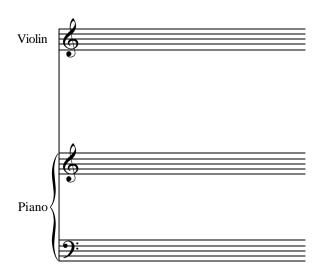
- for Violin and Piano -



Eric Egan
5 Minutes

Non-Stable Equilibrium

- for Violin and Piano -



Eric Egan

5 Minutes

About the Piece:

The piece consists of a series of musical gestures which are framed by various lengths of silence. Broadly speaking there are three separate musical characters which are developed/presented and contrasted.

Tacet bars should last for a period of time as close as possible the duration stated. Keep in mind that the longest silences (14", 9", 8") should be at least as long as notated, while the shortest (1', 2") should certainly be no longer than stated.

If anything, the character of each section should be exaggerated - physically, through body language if this is desired.

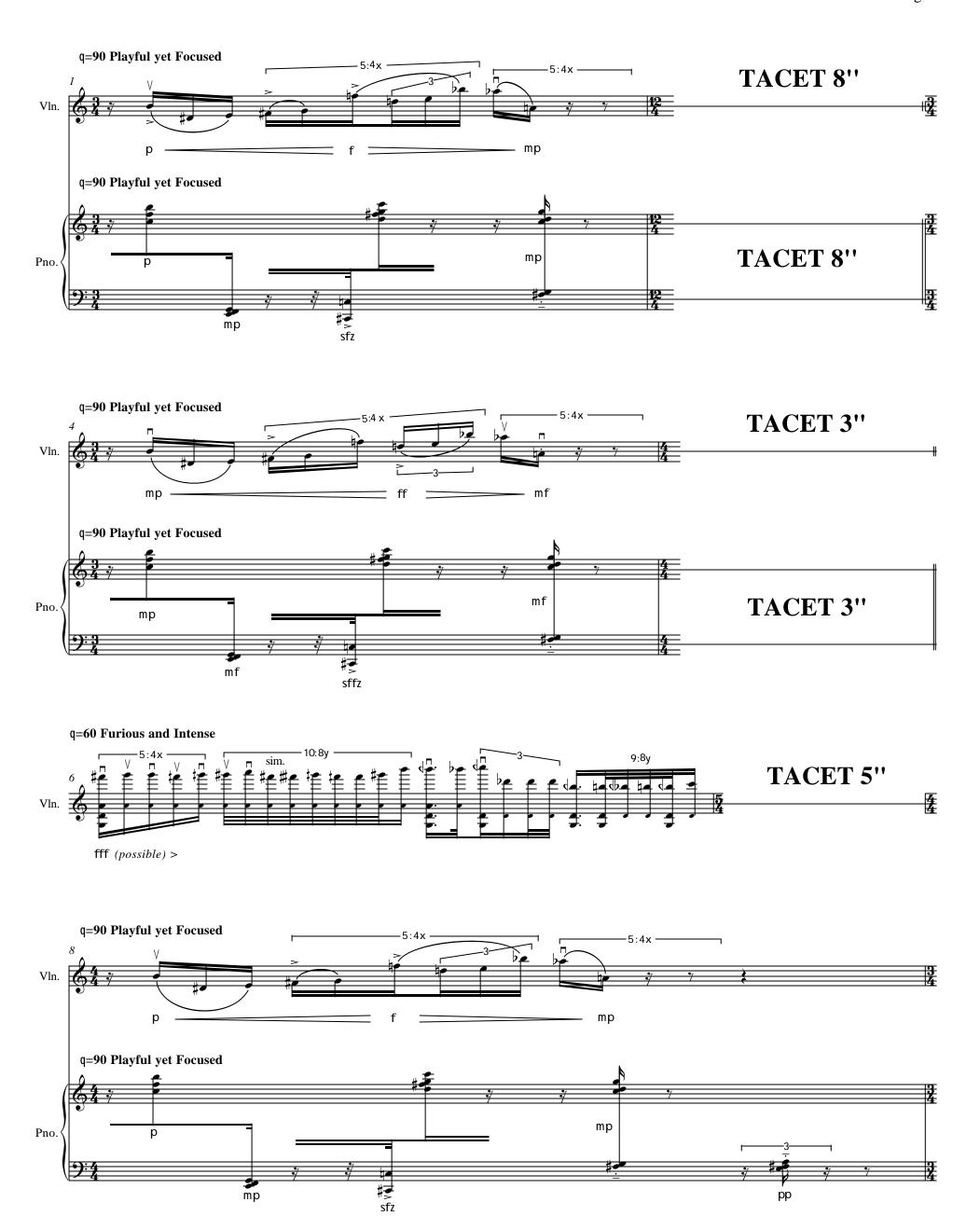
The piece is inspired by Nils Lennart Wallin's statement below:

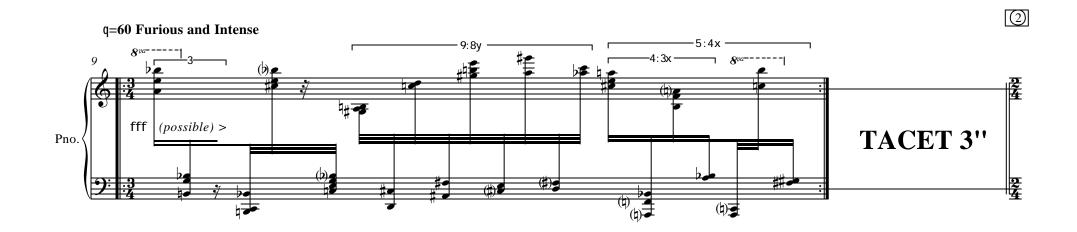
"The Transition from potential, only virtual, sound patterns to actual sound gestures and music is caused by changes in the agent's sensomotor and mental tonus through exchange of energy between him and his environment, from a non-stable equilibrium (rest) to active states of fluctuation. A non-stable equilibrium is a state full of creative possibilities. Silence, therefore, to be broken and transformed into sound gestures or music, is a kind of analogue to the quantic vacuum that is postulated in some modern cosmological models for the creation of the universe... it is not passive, but conceals its power in order, at a certain moment, to release all thinkable combinations of acoustic and kinetic energy into a world of music and dance" - (Nils Lennart Wallin, Biomusicology, Neurophysiological, Neuropsychological, and Evolutionary Perspectives on the Origins and Purposes of Music (Stuyvesant, New York: Pendragon Press, 1991).

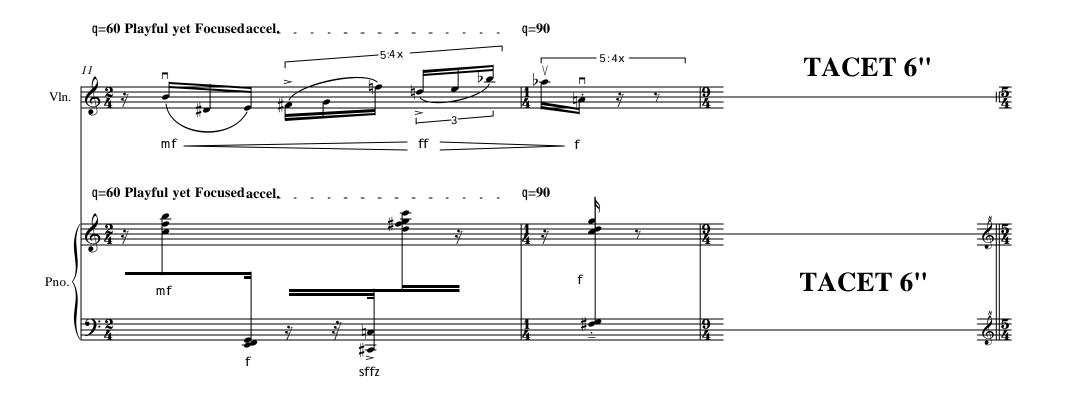
Non-Stable Equilibrium

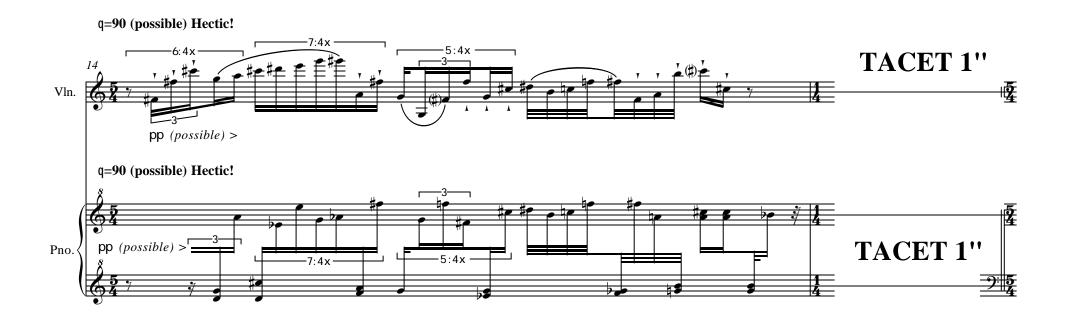
- for Violin and Piano -

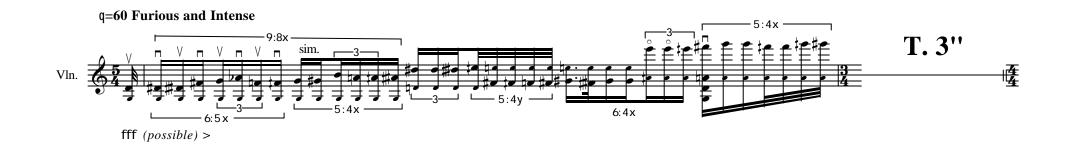
Score Eric Egan

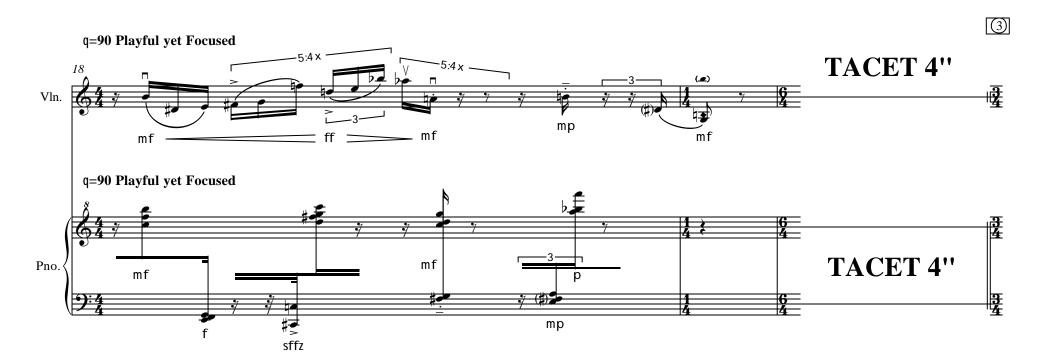


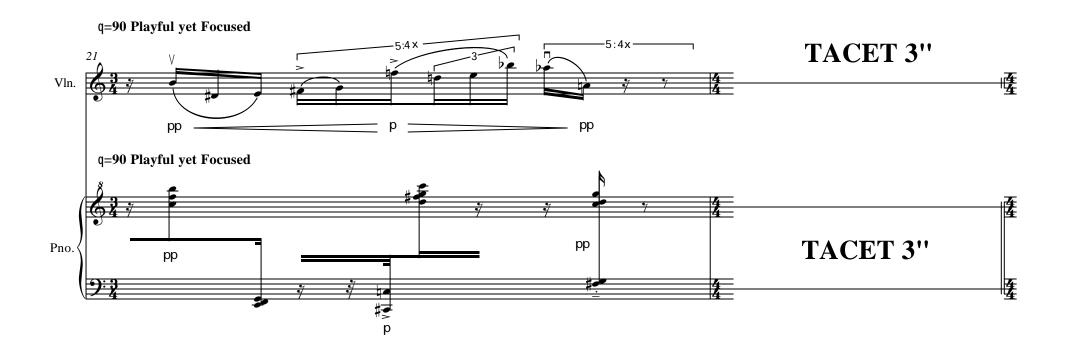


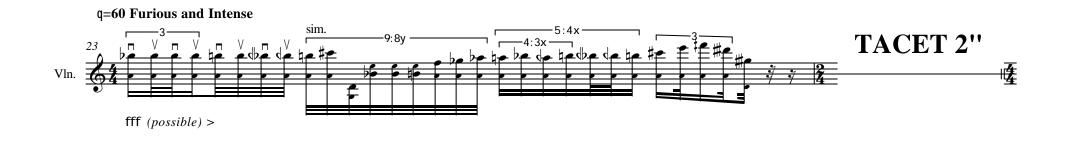


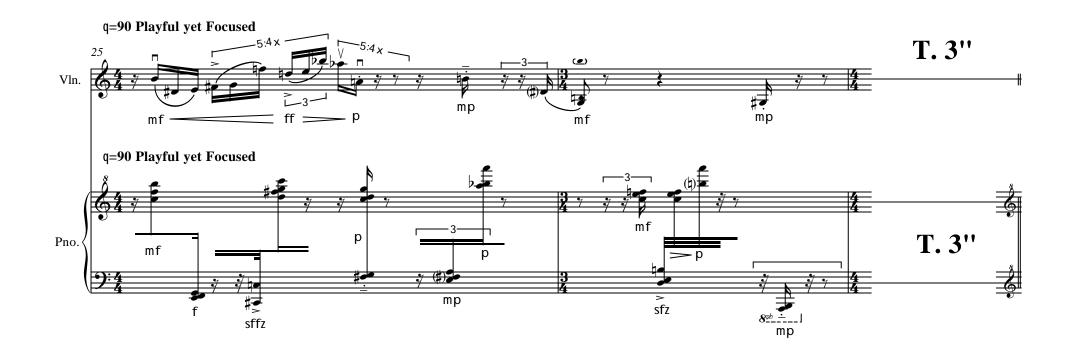


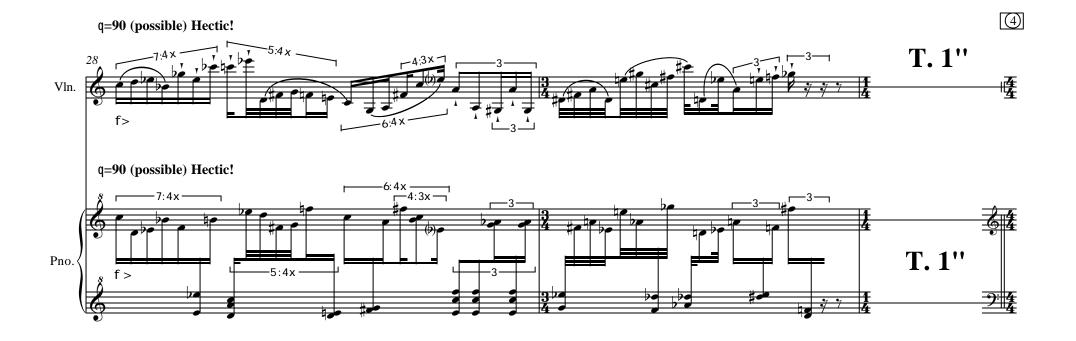


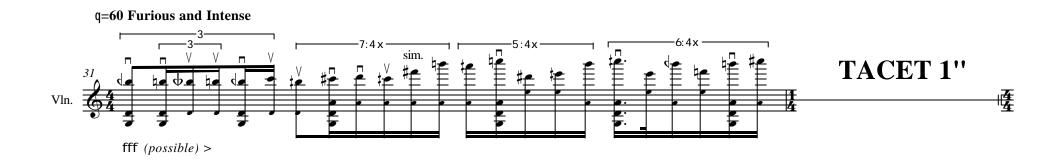


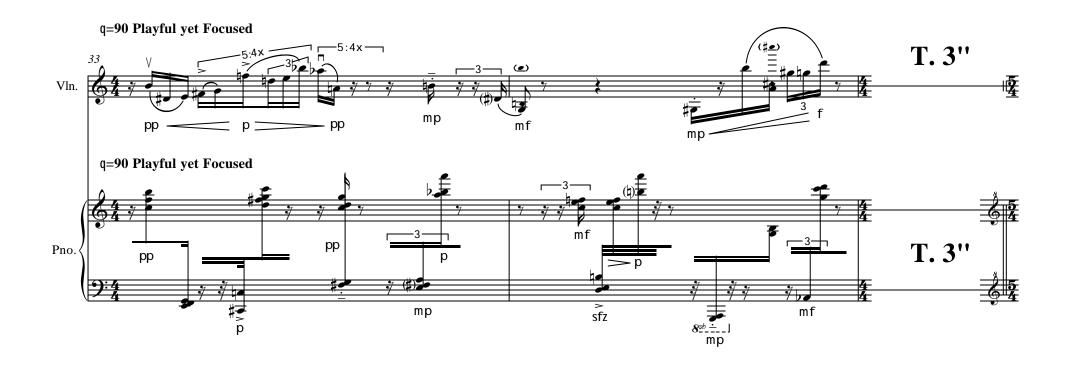


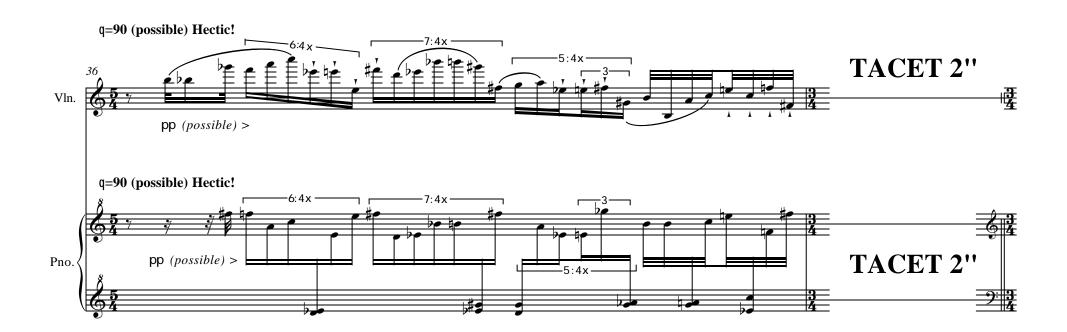


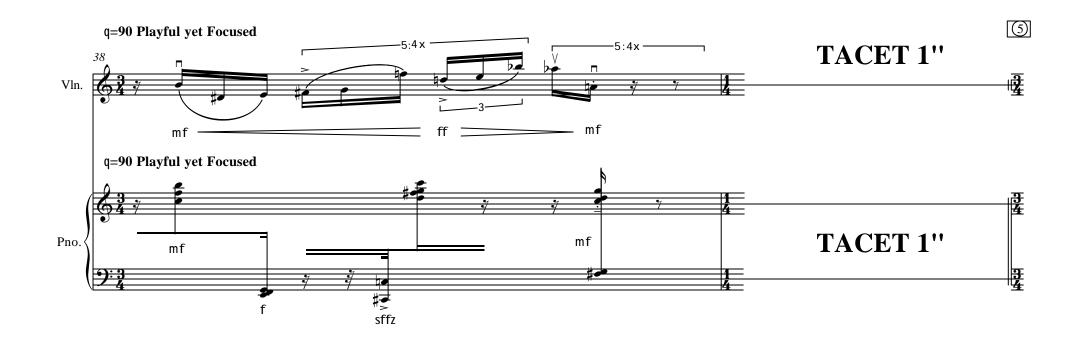


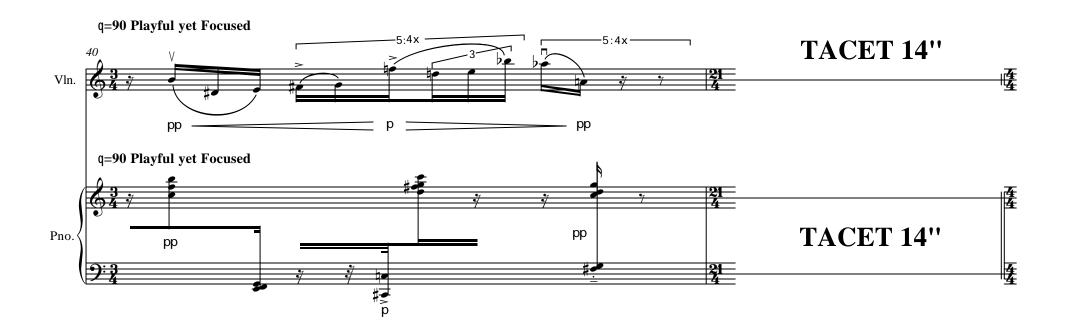


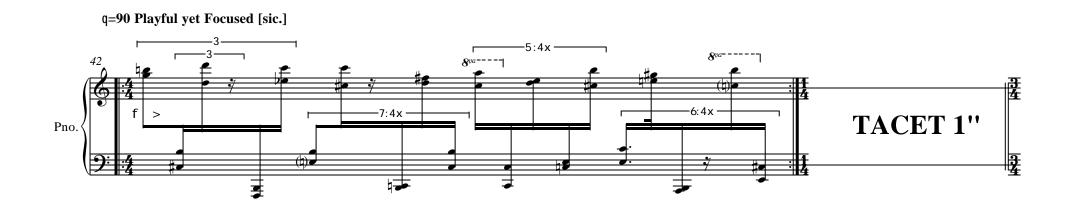


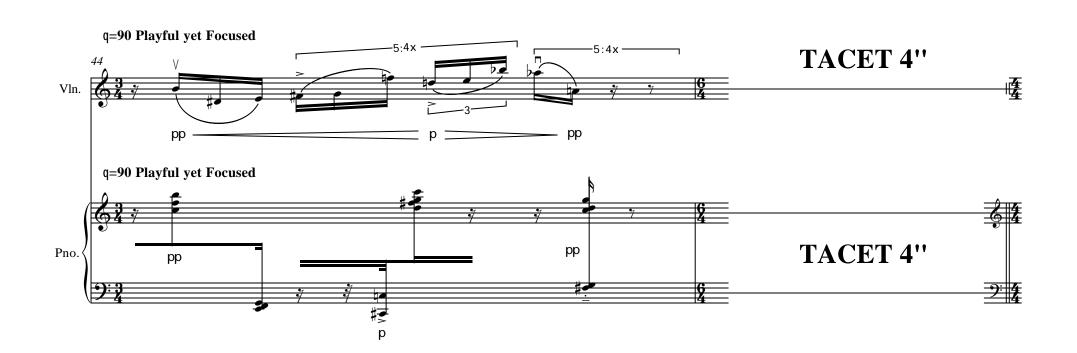


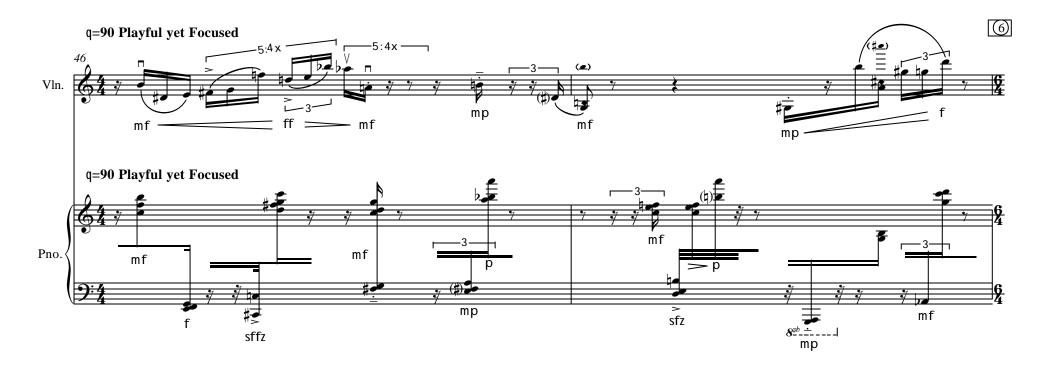


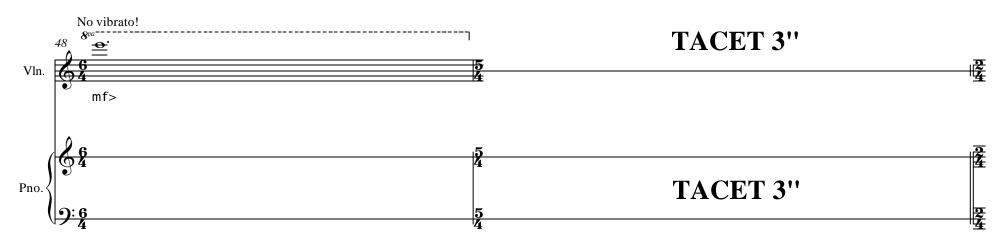


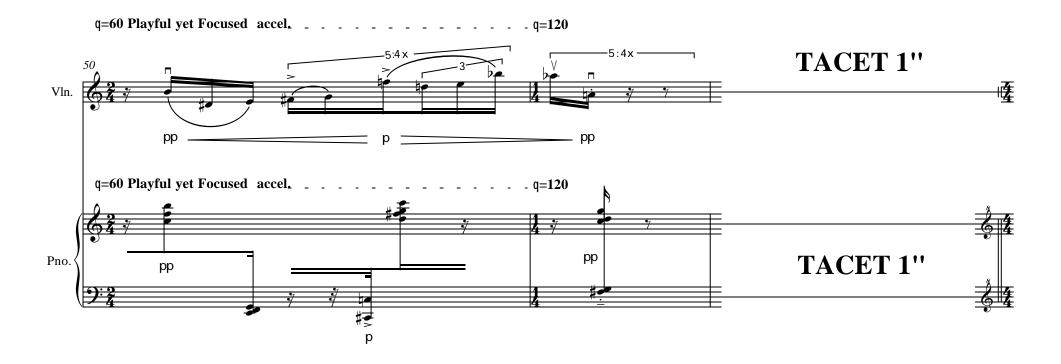


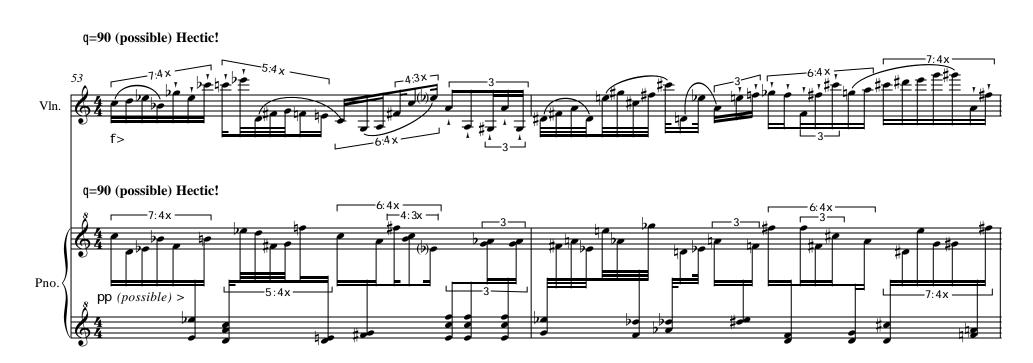


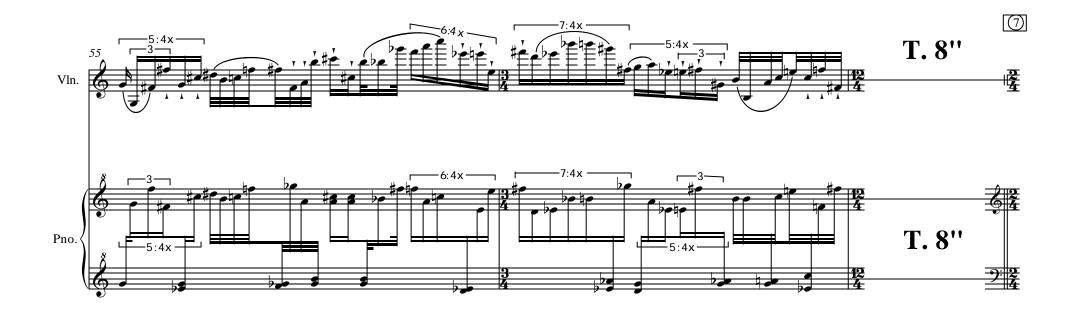


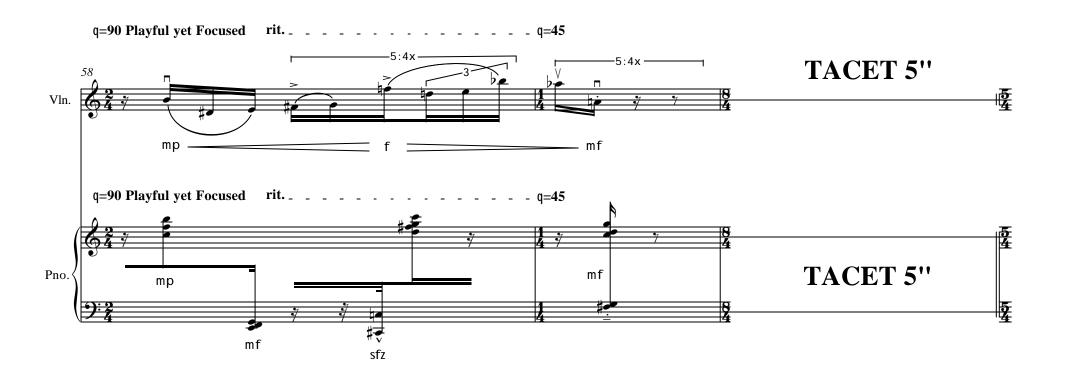


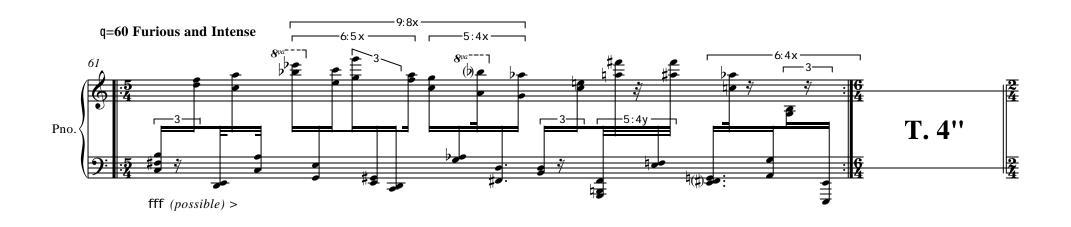


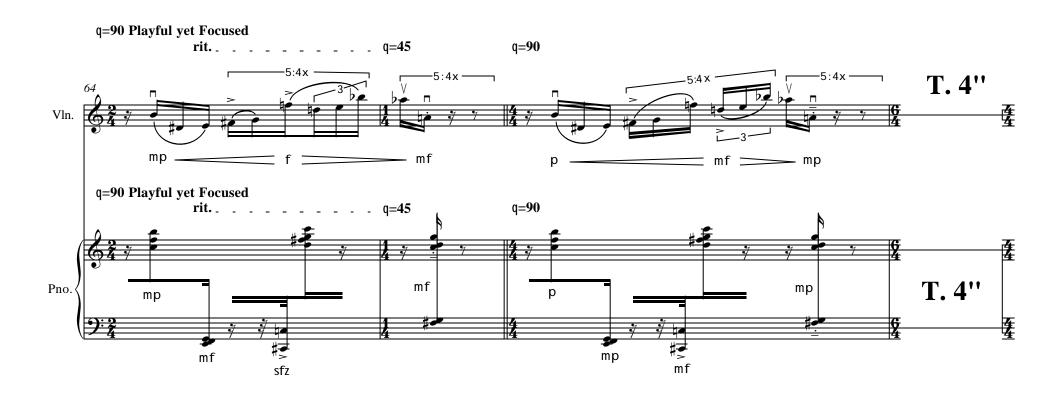






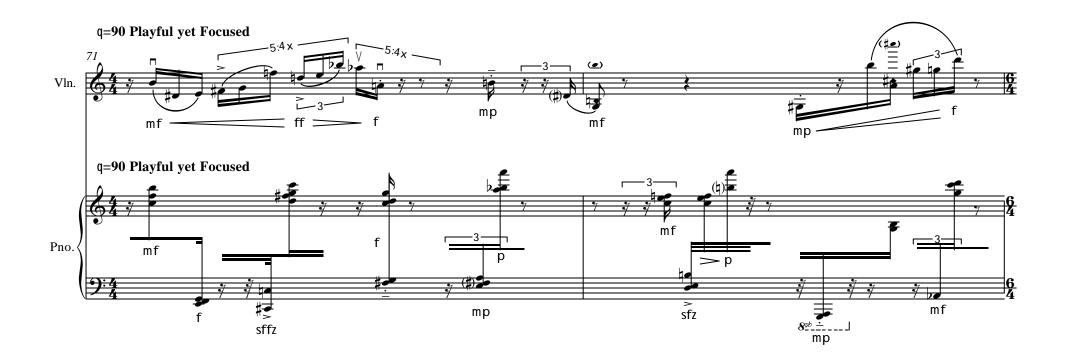


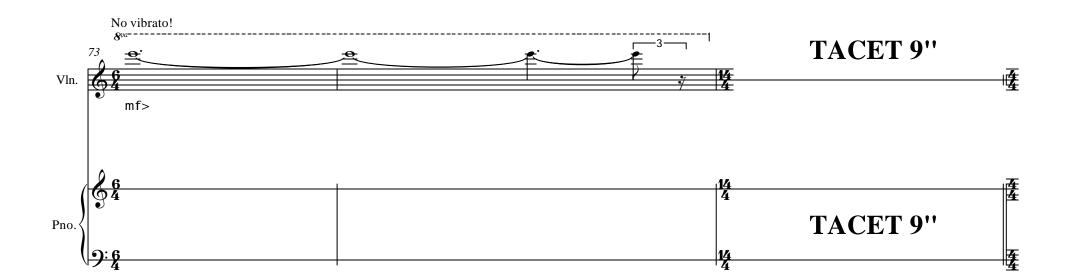




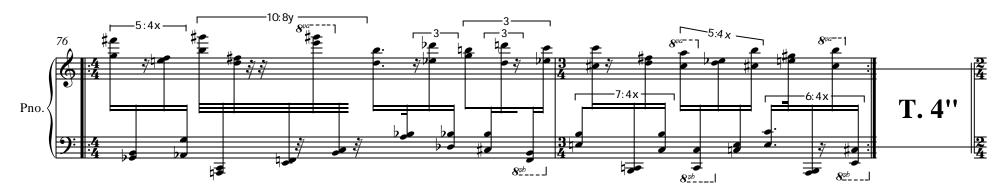








IIIq=60 Hectic but Precise pp (possible) >
I q=60 Furious and Intense fff (possible) >







Commentary on the Portfolio of Compositions Submitted for the degree of Doctor of Philosophy by Composition Eric Skytterholm Egan **Durham University** 2010 Eric Skytterholm Egan
Doctor of Philosophy by Composition

Durham University Music Department 2010

Portfolio Contents:

Symphony No. 104	(2007) - for orchestra	18 minutes
From The Eumenides	(2007) - for mezzo soprano and cello	7 minues
Lost Words	(2008) - for large ensemble and singers	25 minutes
String Quartet No. 2	(2008) - for string quartet	12 minutes
String Quartet No. 3	(2009) - for string quartet	10 minutes
12 Miniatures	(2009) - for amplified classical guitar	13 minutes
Non-Stable Equilibrium	(2009) - for violin and piano	5 minutes

The portfolio of compositions contains seven pieces for a variety of vocal and instrumental and forces. *Symphony No. 104, From The Eumenides, Lost Words, String Quartet No. 2* and *12 Miniatures* are cycles of miniatures, while *String Quartet No. 3* and *Non-Stable Equilibrium* are throughcomposed. The latter two pieces were also conceived in brief musical sections. Each individual miniature or section is typified by focus on a single musical idea and their sequence was determined with the aim of contrasting and complementing different musical characters and styles. As a rule, the musical material was instinctively conceived and the music intuitively written. In the compositional process, particular attention was paid to clarity of form and musical expression. It is the composer's desire that each section or movement be perceived as a coherent unit with an individual musical identity.

The commentary for the portfolio is divided into two parts. The first explores the theoretical framework behind the music. A number of different issues are addressed, the most prominent of which are the miniature format, the concept of experiential form and the notions of intuition and musical style. The second part of the commentary presents the individual compositions in a chronological order with a particular focus on compositional process, structure and form.

Contents

	Contents of Accompanying CD's	iii
	List of Tables and Figures	iv
	Acknowledgments	v
	Introduction	1
	– Part I –	
1.	On the Miniature	2
	1.1 Introduction	2
	1.2 Defining Terms	3
	1.3 The Miniature and its Guises	5
	1.4 Three Categories of Form: Intuitive, Explicit and Implicit	11
	1.5 Structure and Refinement: Skempton, Webern and Kurtág	14
	1.6 Concluding Remarks	16
2.	Form: Memory and Perception	18
	2.1 Introduction	18
	2.2 The Importance of Formal Perception	19
	2.3 Memory and Experiential Time	21
	2.4 The Limitations of Working Memory	22
	2.5 Cognitive Psychology and Simple versus Complex Structures	24
	2.6 Concluding Remarks	27
3.	Theory and Style	29
	3.1 Introduction	29
	3.2 Theory	29
	3.3 Intuition and Style	31
	3.4 Concluding Remarks	33
	– Part II –	
4.	Symphony No. 104	34
	4.1 Introduction and Context	34
	4.2 The Idea and the Haydn Quotations	34
	4.3 Structure and Process	35
	4.4 Intuition and Form	37
	4.5 Concluding Remarks	38
5.	Pieces for Voice	39
	5.1 From The Eumenides	39

Contents Page i

	5.1.1 Idea		39
	5.1.2 Structure	and Process	39
	5.1.3 Intuition	and Form	41
	5.2.4 Concludi	ng Remarks	41
	5.2 Lost Words		42
	5.2.1 Context a	and Idea	42
	5.2.2 Composi	tional Process	43
	5.2.3 Structure	and Form	45
	5.2.4 Concludi	ng Remarks	47
6.	String Quartets		48
	6.1 String Quartet No.	2	48
	6.1.1 Idea		48
	6.1.2 Structure	and Process	48
	6.2.3 Intuition	and Form	50
	6.2.4 Concludi	ng Remarks	51
	6.2 String Quartet No.	3	51
	6.2.1 Idea		52
	6.2.2 Structure	and Process	53
	6.2.3 Intuition	and Form	55
	6.2.4 Concludi	ng Remarks	56
7.	Recent Pieces		57
	7.1 12 Miniatures		57
	7.1.1 Idea		57
	7.1.2 Structure		57
	7.1.3 Form		60
	7.1.4 Concludi	ng Remarks	62
	7.2 Non-Stable Equilib	brium	62
	7.2.1 Idea		62
	7.2.2 Structure		63
	7.2.3 Form		66
	7.2.4 Concludi	ng Remarks	67
	Summary and Conclus	sion	68
	Sources		70
	Literature		70
	Scores		75
	Appendices		76
	Appendix A	The Text for From the Eumenides	76
	Appendix B	The Text for Lost Words	77
		Kurtág's 12 Microludes for String Quartet, Movement V	81

Contents Page ii

The portfolio is accompanied by two CD's. CD 1 contains recordings of four of the pieces submitted, while CD 2 contains computer files of all of the pieces, in Sibelius 4 and PDF format, as well as a PDF file of the commentary.

CD 1 - Recordings

The recordings of *String Quartet No. 2* and *From The Eumenides* were made in concert, while *Symphony No. 104* and *Lost Words* were recorded at rehearsals. Furthermore, changes have been made to a number of movements in revisions. As a result, some of the recordings are more accurate representations of the score than others.

Track Number	<u>Piece</u>
1 - 11	Symphony No. 104 (complete piece)
	Durham University Orchestral Society, Matthew Taylor (cond.)
	The Sage, Gateshead – 04/02-07
12	From the Eumenides (movements I and VII)
	Kat Leigh (mezzo), Louisa Tuck (cello)
	The Sage, Gateshead – 12/07-08
13 - 24	Lost Words (complete piece)
	Durham University Opera and Music Theatre Unit
	Fonteyn Ballroom, Durham – 22/01-09
25 - 35	String Quartet No. 2 (complete piece)
	Momenta Quartet
	Culture Lab, Newcastle – 12/07-08

CD 2 – Computer Files

Folder Number	Contents
1	Symphony No. 104
2	From The Eumenides
3	Lost Words
4	String Quartet No. 2
5	String Quartet No. 3
6	12 Miniatures
7	Non-Stable Equilibrium
8	Commentary

List of Tables and Figures

Table 1:	Three Categories of Form	12
Table 2:	Form-types and Gestalt Grouping Principles	25
Table 3:	The Macro-Structure of Symphony No. 104	36
Table 4:	Suggested Form-Type for Each Movement of Symphony No. 104	38
Table 5:	Original Idea and Basic Structure of Each Movement in	39
	From The Eumenides	
Table 6:	Suggested Form-Type for Each Movement of <i>From The Eumenides</i>	41
Table 7:	Instrumentation for Lost Words	42
Table 8:	Emotional States and Instrumentation for Each Character-	44
	World of Lost Words	
Table 9:	Basic Structure and Suggested Form-Type for Each Movement of <i>Lost Words</i>	45
Table 10:	Idea and Basic Structure of Each Movement in <i>String Quartet No. 2</i>	49
Table 11:	Suggested Form-Type for Each Movement of String Quartet No. 2	51
Table 12:	Character, Style and Process of String Quartet No.3	52
Table 13:	Suggested Form-Type for Each Section of String Quartet No.3	55
Table 14:	The 'Failure' of Each Section in String Quartet No.3	56
Table 15:	Basic Structure and Structural Process for Each Movement of 12 Miniatures	59
Table 16:	Structural Process and Suggested Form-Type for Each	60
	Movement of 12 Miniatures	
Table 17:	Three Musical Materials from Non-Stable Equilibrium	64
Figure 1:	12-Tone Rows in Symphony No. 104	37
Figure 2:	[A] 12-Tone Row from Movement I of From The Eumenides	40
	[B] Bars 11-13 of Movement I of From The Eumenides	
Figure 3:	Reduction of Accompanying Harmonies in Movement XII of String Quartet No. 2	49
Figure 4:	Authentic Cadence Motif in Violin 1, Movement XII (bars 3-4) of <i>String Quartet No. 2</i>	50
Figure 5:	12-Tone Row in Sections I and II of String Quartet No.3 53	
Figure 6:	[A] 12-Tone Row in Boulez' douze notations VI (bar 1)	58
	[B] 12-Tone Row in 12 Miniatures IV (bars 1-2)	
Figure 7:	Recurrent Harmonic Gesture in Movement XII of 12 Miniatures	61
Figure 8:	Opening Cell of Non-Stable Equilibrium (bars 1-2)	64
Figure 9:	First Exposition of Material B in <i>Non-Stable Equilibrium</i> (bars 5-6)	65
Figure 10:	First Exposition of Material C in <i>Non-Stable Equilibrium</i> (bars 14-15)	65

Acknowledgments

In the course of this three (and a bit) year project I have received advice, encouragement and inspiration from a lot of people. I would therefore like to take the opportunity to express my gratitude to them. First, I would like to thank the three supervisors I have had over my period of study, Mr. Richard Rijnvos, Prof. Bennett Zon and Dr. Martyn Harry, for their constant enthusiasm and generous interest in my work. In addition I would also like to offer my gratitude to all of the staff at the music department; in particular to Karen for the tea and to Ron and Martin for satisfying my technical needs. I am incredibly grateful to my friends (for providing constant distractions), to Kelcey for accompanying me on the ride, to my family for their support and for proofreading my commentary, and to Jen for giving me a sense of perspective. I would also like to thank the University and the Doctoral Fellowship Scheme. Without their financial support this project would have been impossible. Finally, I offer my thanks to the ever present Havisock Society for always lending a hand when I needed it the most; it is to this society that this project is dedicated.

Introduction

This commentary is intended as a companion to my portfolio of compositions. In order to provide the reader with as broad an introduction to my music as possible, I have chosen to divide it into two parts. Chapters 1 to 3 provide a theoretical framework for my music, while Chapters 4 to 7 give an outline of the specific compositional processes and structure of each of the pieces.

It is important to note that while the music was composed over the past three and a half years, the theoretical framework was put together over the past year. As a result, the earliest pieces may appear to conform less obviously to this framework than the latest. However, while they were written before my theories were formulated, the earlier pieces were nonetheless composed in accordance with the same underlying conceptual principles.

As the majority of my pieces are cycles of miniatures, I begin my commentary, in Chapter 1, with an exploration of, and apologia for the miniature format. This is followed in Chapter 2 by an investigation into experiential form as defined by human memory and perception. In Chapter 3 I look at how this concept of form relates to my own compositional framework; I also explore how I approach the notions of intuition and musical style.

In Chapters 4 to 7 I present my own compositions in a loose chronological order. Chapter 4 gives an overview of the compositional process, structure and form of *Symphony No. 104* (2006-2007), while Chapter 5 explores my two cycles of songs, *From The Eumenides* (2007) and *Lost Words* (2008). In Chapter 6 I give an account of *String Quartet No. 2* (2008) and *String Quartet No. 3* (2008-2009). The reason I have chosen to include two string quartets in my portfolio is that they are very different, yet they are both clear examples of my compositional development and technique. In Chapter 7 I explore my most recent pieces, *12 Miniatures for Guitar* (2009) and *Non-Stable Equilibrium* (2009). I conclude my commentary by summing up the basic underlying principles of my compositional aesthetic.

Introduction Page 1

1.1 Introduction

Though the brevity of these pieces is a persuasive advocate for them, on the other hand that very brevity itself requires an advocate – Arnold Schönberg, 1924 (Schönberg 1959: 8)

Few would argue that Brian Ferneyhough's preference for 'complexity' can be taken to indicate that he is not capable of composing simpler music. Similarly, it is hardly likely that Anton Webern's predilection for short movements shows that he did not possess the skills required to compose longer works. In the same vein, it is unlikely that the Darmstadt school's embrace of serialism was symptomatic of the fact that the composers were incapable of employing 'conventional' modes of musical organisation. Rather, one might argue that a composer's structural considerations are guided by other factors such as their schooling, critical intentions or simply their aesthetic preferences. Nonetheless, every composer's work and therefore also their structural choices, will invariably come under scrutiny, particularly when that composer's music does not conform to the prevailing schools of thought.

Even a brief glance at my compositional output over the past three years will show that there is a predominance of multi-movement works in which each movement is characterised by brevity and in most cases a focus on one musical idea. It is by no means unheard of for composers to employ such a framework. Indeed the oeuvres of Anton Webern and György Kurtág directly spring to mind. In fact, since the onset of serialism there are few composers who have not left us with at least one short-movement work. Nonetheless, writing almost exclusively small-scale pieces is unusual in today's musical climate, just as it was when Webern wrote his pieces more than two thirds of a century ago.

Whilst I hesitate to liken my own musical output to that of Webern, I think it is fair to say that there are a number of similarities between our approaches to composition. At

¹ Speaking of Kurtág's pieces, Claus-Steffen Mahnkopf states, "The miniaturization and concentration of material is reminiscent of Webern..." (Mahnkopf 2008: 157).

the very least it can be maintained that, like his, the dimensions of my pieces are not typical of contemporary norms. With this in mind I believe that it is important that I present an apologia for my choice of the small-scale format, often referred to as the *miniature*. To this end I will investigate a selection of short-movement compositions penned by nine significant 20th century composers. In an effort to locate any common ground between these, I will classify my formal experiences of them into three categories which I will then go on to explore further. I will conclude by summing up what I believe to be essential features of the miniature format.

I will first and foremost base my analysis on aural experiences of the music; I will not attempt to uncover any underlying processes in great detail.² Nevertheless, I have chosen to support and inform this by consulting scores and relevant sources. However, this is primarily an investigation into the *miniature* as it appears in the *Lebenswelt* (life-world)³; it is therefore predominantly the outcome of the precompositional process rather than the details of the process itself that concerns me. One might say that I am exploring the pieces from a quasi-phenomenological perspective, in the sense that "phenomenology deals with music *as it appears* to musical consciousness" (Skarada 1989: 63). I write "quasi" since while I may employ some phenomenological arguments, I do not subscribe to an overarching phenomenological method, or indeed to any single analytical tool.

1.2 Defining Terms

As this is in part an analytical chapter, a discussion of the organisation of musical material must inevitably take centre stage. It is essential that I define a number of terms before I begin, the most important of these being *miniature*, *form*, *structure* and *idea*.

To my knowledge there is no commonly accepted definition of the term *miniature* as this is applied to music. Nevertheless the word is regularly employed. Adorno states

Chapter 1 – On the Miniature

² Joscelyn Godwin states that Stockhausen himself suggests we listen to his first *Klavierstücke* "on a naïve plain, attending to similarities and contrasts in the overall constitution of each *Gruppe*" (Godwin 1967: 349).

³ "Lebenswelt is... the clearly and simply experienced and experiential world, given to our perceptivity or perceptual faculties" (Smith 1989: 211).

that "Most of Webern's twelve tone compositions are restricted to the size of Expressionistic miniatures" (Adorno 1987: 110–111), while Michael Nyman describes Howard Skempton's short piano pieces as "Brief, delicate, miniature works…" (Nyman 1999: 167). I will generally employ the term for movements with a duration of less than 2 minutes.

When I use the word *form*, it is neither in a traditional musicological, strictly formalist, nor in a phenomenological sense. What I am referring to is an abstract experiential configuration by which a sequence of musical events is perceived (in passing) and recalled (post exposure) as non-arbitrary. My definition undoubtedly relates to other definitions of *form*, particularly in the sense that it is concerned with coherence and unity. However, most of these, such as Arnold Whittall's in *Grove*, "The constructive or organizing element in music" (Whittall: Oxford Music Online), are more concerned with what I will define as *structure* than what I conceive to be *form*. The crucial difference is that *form*, as I understand it, is a purely experiential, rather than a constructional concept. Furthermore, as it is based on our individual cognitive faculties, *form* is entirely subjective. I should therefore emphasise that when I make use of the term, I am speaking of my personal, rather than an empirical understanding of music.⁴

One could argue that while *form* is an abstract experiential notion, a *structure* is definable as the end result of a process of organisation of any, or all, musical parameters. I will further differentiate between extra-musical *structure* and *intuitive structure*. A sequence of events that is arranged intuitively, e.g. by voice-leading alone, falls under the heading of *intuitive structure*. A musical canon and a piece which is assembled from serial techniques are both considered extra-musically organised *structures*, regardless of whether or not the organising principles are themselves detectable.

I use the term *idea* to describe the composer's abstract conception of the piece. Here, I am referring to the notion of compositional intent (it might further be described as

_

⁴ Siu-Lan Tan et al. argue that "musical unity has seldom been explained from the perspective of the listener" (Tan 2006: 407). Similarly, West et al. state that "To date, no attempts have been made to produce a generally applicable model of perceived musical structure" (West 1985: 21).

proto-form). In my understanding, the *idea* is almost certainly variable throughout the compositional process. In this respect it is, like *form*, not strictly definable. Unless the *idea* is itself of a specific structure, I must make a further distinction between the *idea* itself and the structural *idea*. I will define the latter as the *structural process*, by which I mean the composer's 'plan' for the organisation of musical materials.

1.3 The Miniature and its Guises

As I mentioned in the previous section, the *miniature* can be found in a lot of 20th century composers' output under a variety of different guises. My aim in this section is to examine what, if anything, such pieces have in common, with regard to their *formal* fabric. In order to facilitate a comparative discussion I have chosen a selection of relatively short piano pieces; Schönberg's *Sechs kleine Klavierstücke Op. 19* (1913), the second of Webern's *Variationen* (1936), Boulez' *douze notations* (1945), Stockhausen's *Klavierstücke III* (1952), the first of Feldman's *Last Pieces for Piano* (1959), Kurtág's *Acht Klavierstücke* (1960), the second of Ferneyhough's *Epigrams* (1966), Maxwell-Davies' *Five Little Pieces* (1967) and Skempton's *A Humming Song* (1967) and *Quavers* (1972).⁵

To begin chronologically, Schönberg's pieces appear to be intuitively composed, at least to the extent that there are no rigid structural procedures in place. It can, however, be argued that each movement (with the possible exception of the first) sustains or develops a single musical character throughout. The second is dominated by a repeated major triad [G - B], the third by the constant harmonic progressions. In the sixth movement, a loose bi-modal relationship between the left and right hand appears to be the dominant feature, even though it does not seem to be placed within a rigid structural framework. In the contemporary musical climate of late romantic expressionism it would certainly have been very unusual to employ rigorous structural processes such as we can find for example in Boulez' music, indeed even after the onset of serialism Schönberg's music was characterised by "traditional melodic and rhythmic elements" (Brindle 1987: 8). Nevertheless, it is not difficult to find

_

⁵ Primarily I have made this selection based on the fact that of the piano miniature is perhaps the most common format of the small-scale movement. In addition, having a range of pieces written for the same instrument makes it easier to compare them to one another. The composers have been chosen in order to allow for a broad range of styles and different musical aesthetics.

similarities between the latter composer's piece and a number of the movements from *douze notations*, written over four decades later.

The fourth movement of Boulez' piece is characterised by a continuously restated motif in the left hand, upon which the right hand develops a separate motivic idea. This arrangement is similar to that of the second movement of Schönberg's *Klavierstücke*, where we hear the same principle, although on a vertical rather than a horizontal plane. From the seventh movement of *notations* we can draw a parallel to Schönberg's sixth movement, mentioned above. In Boulez' piece, however, the bimodal relationship is one of complete separation. The left hand is given a set of four notes [B - C - F - F*] whilst the right develops two motivic ideas using the other eight notes of the chromatic scale. The major difference between these approaches is that what appears to be a loose musical relationship in the former piece takes on a strict and explicit *formal* dimension in the latter. Not all of the *notations* are as rigidly structured as these two; the first for example, although it is in parts serially organised, gives the impression of being intuitively assembled. Overall, it appears that the *notations* are a forum through which Boulez can exhibit, or even experiment with, a range of different structures within a world of loose serialist boundaries.⁶

The eleventh movement of *notations* is palindromic, with the exception of bars 6 and 7. Similarly, the second of Ferneyhough's *Epigrams* is a palindrome, with the exception of a few irregularities. Nonetheless, if one discounts these, all the notes are mirrored around the axis of the 13th barline. Running across this symmetry are the dynamics, which are throughcomposed. Both Ferneyhough's *Epigram* and Boulez' *notation* are examples of a balanced *form* where the composer has taken occasional liberties with an otherwise rigid structure. Indeed Ferneyhough states that each movement of his *Epigrams* consciously sets out "to formulate and resolve specific issues of technique and form... each brief movement enunciates and elaborates on a

⁶ David Fanning states that the serial technique is "quite primitive" (Fanning 1988: 136). Although Ben Arnold confusingly attributes 1985 to be the year of composition, perhaps as the composer was working on orchestral adaptations of the pieces at the time, he states that the movements are based on "serial techniques, but in freer ways than in his earlier [later - ed.] piano works" (Arnold 1988: 580).

⁷ The grace notes in bars 18 – 20 are placed in front of the gestures as they are in the preceding section. The chords in the left hand in bars 14 and 15 are not identical to their counterparts in bars 13 and 12; only one note in each chord is the same. Although the remaining notes are reversed in the standard manner, Ferneyhough displaces the majority of them by one or several octaves.

single premise" (Ferneyhough 1967, Preface). Although the structural principles of the two movements might be the same, however, there are other areas where they greatly differ. Due to the complexity of the material, the palindromic structure in Ferneyhough's piece is a lot less likely to be recognised than it is in Boulez' movement, where it is clearly audible. In fact the constant rhythmic motion of the sixth *notation* situates it closer in sentiment to the second of Webern's *Variationen*, or perhaps even more strikingly, Skempton's *Quavers* than to any of Ferneyhough's *Epigrams*.

A comparison of *Quavers* and one of Boulez' *Notations* may seem a bit surprising, particularly if one takes into account the schism between modernism and experimental music. Skempton's piece consists of four separate cells (16 in all), each of which contains 8 repetitions of one chord in a regular quaver motion. From a traditional tonal perspective, the fundamental chord is a B-minor harmony while the other three are (at least as I experience them) variations of it. In fact they may be seen as "oscillations" around the primary chord (Parsons 1980: 13). In contrast, Boulez' piece is a two-part canon, where the second part is inverted half way through; the first twelve notes are a twelve-tone row. While the musical approaches are radically different, the even rhythmical motion is unquestionably a striking feature of both pieces. A more intrinsic similarity is that each piece has a strong *formal* experience in which one gesture stands out amongst the others; in Boulez' piece, the inversion of the second part midway through, in *Quavers* the minor chord, amid its digressions.

In terms of rhythmic regularity, the second of Webern's *Variationen* is reminiscent of the pieces above. ¹⁰ Confining our attention to the surface level, without going into detail about the serial organisation, it can be divided into a series of gestures (25 in all), each of which contains one or two consecutive two-note cells built from quavers

-

⁸ While Boulez wrote this piece early on in his career before the full onset of post-WWII modernism, the two composers might still be said to have distinctly different perspectives on composition.

⁹ Michael Parsons argues that the rhythmic motion is "used simply as a way of prolonging and emphasising the sonority" (Parsons 1980: 13). Whereas this may very well be the case it is nonetheless an intrinsic experiential characteristic of the piece.

¹⁰ It has been argued that Webern in his *Variationen* lays the ground for the first generation Darmstadt composers by serially organising other musical parameters than pitch such as duration, density and register (Peyser 1980: 70). I have decided not to address this aspect of the piece as it is mainly confined to the final movement, exhaustively analysed by Armin Klammer in *die reihe* (Klammer 1959: 81-92). In any event this dimension is not an explicitly audible characteristic of the music.

or interlocking crotchets. The majority of the gestures are separated by one quaver rest. 11 Although the majority of the quavers are monads, these are interspersed with four cells consisting of two quaver triads. The texture is also broken up by a number of grace-notes. Nonetheless, due to the even distribution of these disparities, the piece is characterised by a sense of *tectonic balance* (F.S. 1949: Preface) or symmetry. In fact Adorno states that "Webern's *Piano Variations* offer nothing more than uniform symmetrical presentations of the miraculous row" (Adorno 1987: 111). Because of the nature of the serial organisation of the piece, the number of different intervallic cells is restricted, something that further adds to the experiential sense of balance.

The pointillistic quality of Webern's piece is echoed in Stockhausen' Klavierstücke III. Another striking resemblance is the degree of dynamic specificity. Whilst every cell in Webern's piece is given its own dynamic, every single note of the third Klavierstücke is given its own indication. While this may suggest an underlying sphere of structural organisation it also facilitates a constant level of dynamic variation. ¹² Although the 11 central bars of Stockhausen's piece contain a number of overlapping notes, the outer bars are strictly monadic. This instils the composition with a sense of balance similar to that of Webern's second movement, at least in principle if not to the same degree. I suspect that most listeners would consider all three of the *Variationen* to have a significantly more balanced *form* than Klavierstücke III. Nevertheless, I personally perceived both pieces as coherent units. A further immediate resemblance between the compositions is that they both begin and end with the same two-note cell, something that might further help to establish a sense of return. ¹³ Again, however there is a big difference in terms of clarity. Whereas the feature is certainly audible in Webern's piece, Stockhausen extends the interval by three octaves rendering it difficult to detect. A similar revisiting of the opening material at the end of the piece can be found at the end of a number of the other

_

¹¹ The only exceptions are the gestures in bar 3 which are separated by a crotchet, the last two gestures which are separated by a minim, and three gestures which are merged (in bars 2, 7-8 and 14-15).

Stockhausen states that "serial compositional rules are also employed for the dynamic distinctions... durations... and fourfold-deep sound layering" (Stockhausen 1993: 145). Paul Griffiths argues that these processes are "not easy to determine" and that no analytical approach has been successful in identifying them (Griffiths 1995: 73).

¹³ In his commentary on Nicholas Cook's analysis of the piece, David Lewin questions whether or not "arch shapes create coherence in Stockhausen" or indeed in any art (Lewin 1993: 56). However, he acknowledges that the intervallic return at the end of the piece is significant enough to merit an analysis of its contour (Lewin 1993: 54). I will look at the notion of *contour* in chapter 2.

compositions I have looked at so far, including Skempton's *Quavers*, the third of Schoenberg's *Klavierstücke* and a number of Boulez' *notations*. I would argue that in these compositions the technique can be perceived to varying degrees, depending on the complexity and duration of the intervening material.

The composition that perhaps stands out the most from my selection is the first of Morton Feldman's *Last Pieces*. While the score might give the impression of a constant pulse, the durations are free, which means that a rhythmic analysis is not really applicable. There is, however, an immediately recognisable structure in that the piece is homophonic and consists of 43 separate attacks. Two of these are single notes while the remaining 41 are chords consisting of two to six pitches. This continuous vertical constancy is reminiscent of both the second of Webern's *Variationen* and Skempton's *Quavers*. As is also the case in these two pieces, there are a small number of departures from a basic structure. In Feldman's composition these are very minimal; there are three grace notes, one in the beginning and two towards the end of the composition. The latter two accompany the only two instances where one or more notes are tied over between chords.

Another piece that is very different to the rest of my examples is Skempton's *A Humming Song*. If we look at the score, we can see that the note heads are without stems as in Feldman's *Last Pieces*; however the performer is merely told to play "as slowly and quietly as possible". As with *Quavers*, the number of pitches is limited and the gestures are all of equal length, in this case semibreves. The piece contains 32 attacks, out of which four are single notes $[D^{\sharp}]$, nine are octave dyads $[D^{\natural}]$ and five are fifths several octaves displaced $[B^{\natural} - F^{\sharp}]$. The remaining 14 consist of three separate chords that contain notes that are to be hummed as well as played $[12 C^{\sharp}]$ and $[12 C^{\sharp}]$ and $[12 C^{\sharp}]$. These gestures might be said to stand out from the others, just as the traditional harmony stands out in *Quavers*. An informed reading of *A Humming Song* tells us that the succession of events was determined by chance procedures. The narrow scope of the material that undergoes these procedures, however, ensures that the structure is

¹⁴ This, however, makes no difference to the initial listening experience; "we have to be *told* that we are listening to a musical process involving random choices, but it cannot be said that the music is actually *experienced* this way" (Clifton 1983: 237). Fred Lerdahl states that "the listener hears the acoustic signal, not its compositional specification" (Lerdahl 1992: 99).

tightly regulated. The likelihood is that a similar *form* would be experienced if the order of events was re-established by new chance arrangement. When the sequence was originally generated, the composer gave himself the freedom of transposing direct repetitions of the outer pitches an octave further from the centre, presumably to allow for fluency of the material. According to Michael Parsons this shows signs of "a finely balanced relationship between chance and intuitive selection" (Parsons 1980: 12).

Although there are certainly similarities between Skempton's short piano compositions and a number of the pieces published as part of Kurtág's *Játékok* cycle, the latter composer's *Acht Klavierstücke* are strikingly different. In fact they more resemble Schönberg's *Klavierstücke* and Maxwell-Davies' *Five Little Pieces* than the compositions mentioned in the paragraphs above. While motivic reiteration and development certainly do occur, particularly in the first and eighth movements, these pieces bear the mark of being freely composed. Nevertheless, as the framework within which the intuitive process is 'released' is very limited, they do maintain a sense of cohesion. Moreover, it could be argued that the relatively protracted first and eighth movements compensate for their length with a certain motivic consistency, the result being that a formal stability is secured. In contrast, one could perhaps view the shorter pieces as *iterations*; in the sense that they are expositions of material; there is no development or recapitulation. ¹⁵

The word iteration might equally be applied to Maxwell-Davies' *Five Little Pieces*. However, while Kurtág's pieces are often open-ended, Maxwell-Davies' compositions are quite conclusively drawn to a close. The third movement of his cycle ends with a reiteration of the phrase from bars three and four coupled with the opening statement, while the fifth culminates with variation of the opening chord progression using the sustain pedal to bind the notes together. This last movement is in fact a basic incarnation of ternary form. Of its three sections, the final one consists of the same eight notes as the first while the middle section contains the four notes of the chromatic scale left out by the other two, in addition to the four notes [E - F# - G#

_

¹⁵ Indeed Rachel Beckles Willson says of the composer, that "His whole understanding of music seems to spring from a concept of human communication… music as speech… [which] did not produce material which lent itself to longer works" (Willson 1998: 15).

- A] that are found in all three sections. Despite this, my primary experience of the composition was not that of a quintessentially balanced structure. The return to the opening chord does bring the movement to a close, but as the passage has been restructured, it is not immediately evident that the notes are in fact the same. It is the unveiling of the combined harmonies, sustained in fusion rather than as a succession of its constituent parts, which dominates the final passage. Indeed the piece might in fact be perceived as a harmonic iteration rather than a statement in ternary form. Regardless of the underlying organization, the immediate *formal* experience is more akin to Kurtág's pieces than it is to any of the extra-musically organised movements I listened to. The structure was not evident and the composition was not characterised by the same sense of balance that I found in Skempton's, Feldman's, or Boulez' music.

1.4 Three Categories of Form: Intuitive, Explicit and Implied

It is clear from this brief survey that most styles of 20th century art music are represented in miniature; from tonal, bi-tonal, atonal and serialist compositions, to pieces where the conventional concepts of tonality and harmony are stretched, or discounted entirely. However, there is one set of relationships that transcends the boundaries of musical style; that of *form*. While in previous periods these concepts have been inextricably linked, the 20th century, through gradual disintegration of the traditional notion of form, sees a loosening up of the close ties between style and structure. ¹⁶ In the brief accounts above we have seen examples of pieces where a clear 'external' *structure* is dominant as well as compositions that appear to have an *intuitive structure*. There are also a number of pieces with no tangible structure, that nonetheless seem to adhere to balanced *formal* principles. These considerations have led me to classify the pieces I have explored into three loosely defined categories, as seen in Table 1.

¹⁶ "With Schoenberg the musical work had disintegrated into fragments" (Mertens 1983: 96). Adorno argues that as a result of Stravinsky's musical processes and the fragmentation of the serial approach, "Musical Form is eventually crippled" (Adorno 1987: 167).

Table 1: Three Categories of Form

← One idea →			
Clarity of Formal Experience	Intuitive Form Iteration	Explicit Form Coherence	Implied Form Tectonic Balance
Very clear (Composers with a partiality for	<u>Kurtág</u> Expressive intuitive statements as structure.	Skempton Chance structures with strict parameters.	Webern Serialist procedures in an intervallic cellular structure.
miniatures).	Post-modern tonality	Tonal implications	Intervallic serialism
Clear form-type.	Schönberg Intuitive structures within an associative framework.	Feldman Rhythmic openness in a homophonic structure.	Stockhausen Extended serialist procedures on many parameters.
	Pre-serial extended tonality	Sounds as themselves	Complex 'multi-serialism'
Less clear but still detectible form.	Maxwell-Davies Intuitive structure with some aspects of arrangement.	Boulez A variety of strict and less rigid structures.	Ferneyhough Super-complex structural processes form a palindrome.
	Post-serial extended tonality	Loose serial world	Complexity

The first category in Table 1, the *intuitive*, contains pieces where, even though the succession of events may seem teleological, there is no strict extra-musical framework by which they appear to have been organised. I have chosen to place Kurtág's, Schönberg's, and Maxwell-Davies' compositions in this category. These are pieces that give the impression of being largely intuitively composed and while there are indubitably signs of structural deliberation in a number of the movements, their primary focus is on pure musical expression unimpeded by explicit structural concerns. Although he is describing Howard Skempton's music, Michael Nyman's description of "brief, delicate, miniature works... [that] are occupied with the captured moment, potential rather than actual recurrence" (Nyman 1999: 167) seems just as applicable to these compositions. As I have already argued, one could even see the (apparent) intuitive process itself as a clear formal process, that of a short expressive fragment or single expositionary *iteration* (see page 10).

In my second category, for pieces with an audibly *explicit* structure, I have placed the compositions by Skempton, Feldman and Boulez.¹⁷ These are pieces that I would

¹⁷ It is important to note that this does not mean that they are devoid of intuitive arrangement. Indeed one might argue that the act of framing a piece in time is in itself a highly restrictive formal decision, which is ultimately based on an intuitive process. It does, however, mean that the initial organisation of material is based on extra-musical processes.

describe as having "cognitively transparent musical surfaces" (Lerdahl 1992: 118). Feldman, who wanted to distance himself from the conventional ways of organising music, has created a piece where the potential for an irregular horizontal structure is counterbalanced by the regularity of the vertical organisation. This imbues the piece with a definite formal coherence. Whilst musically very different, the compositions we have looked at by Boulez and Skempton contain equally perceptible structures and audible forms. Indeed Skempton states in a program note that:

The composer is concerned with communicating the form, and concerned with sound as the most powerful means of communicating the form. The form is the single idea motivating the piece; without this concentration of attention there is no unity. (Skempton cited by Nyman 1999: 167)

My third category, the *implied*, consists of pieces that do not have an explicit structure, but where a balanced *form* is nonetheless tangible. The second of Webern's *Variationen*, Stockhausen's *Klavierstücke III* and Ferneyhough's second *Epigram* all fall into this category. While these pieces are intricately organised, they are all in my opinion characterised by a degree of *tectonic balance*. Discussing serialism, Theodor Adorno states that: "The construction of truly free forms... is prevented... the need to make rhythmic figures thematic... [and the] content of various row figures might well result in a compulsion towards symmetry" (Adorno, 1987: 97). Similarly, it could be argued that any pre-composition that requires high-level structural organisation on a small scale might lend itself to a balanced form. It is certainly the case that whilst these pieces do not reveal their principles of arrangement, the music does imply a degree of structural organisation. However, it might be argued that this balance is a result of the miniature format, rather than the musical organisation itself; I will explore this further in Chapter 2. For now, I will move on to look at the three composers whose music is most associated with the miniature format.

1

ingredients of any complex grouping structure" (Lerdahl 1992: 105).

¹⁸ Nicholas Cook's sectional analysis of Stockhausen's piece presents the composition through a series of experiential processes (David Lewin describes these as "phenomenological presences"). From this he argues that the piece functions primarily on a narrative level. David Lewin attempts to come to grips with the structure of the piece through a complicated framework of network analyses. He concludes that it can be interpreted both in a "formal (abstract spatial)" dimension as well as through "figural (narrative blow-by-blow temporal)" events (Lewin 1993: 67). While the piece may be somewhat ambiguous, I experienced the composition as having an *implied* rather than an *intuitive form*.

¹⁹ Fred Lerdahl states that "Projection of groups, especially at larger levels, depends on symmetry". He argues that while "Much contemporary music avoids symmetry and parallelism... [they are] basic

1.5 Structure and Refinement: Skempton, Webern and Kurtág

Looking at my classification of form in Table 1 it may be interesting to note that of the three composers who are known for their inclinations towards brevity, I have placed one in each category; Kurtág in the first, Skempton in the second and Webern in the third.²⁰ As we can see from the quotation from Skempton on page 13, he is concerned with communicating the essence of the 'form' in his pieces. Peter Hill states that "Skempton's approach to composition – the opposite to most composers' – is to develop thorough 'the labour of the file' paring his ideas down to a point of maximum refinement" (Hill 1984: 9). This desire for refinement is to an extent also echoed by the other two composers.

Let us first look at Webern's music in terms of serialism, to which his name is inextricably linked, in the light of the following two quotations from Adorno:

In his late works Webern shies away from the formulation of new musical forms, it is appreciated that such forms would be external to the pure essence of the row. (Adorno 1987: 110)

Through the subdivision of the row all relationships are forced into such a narrow framework that the possibilities of development are immediately exhausted. (Adorno 1987: 110)

Before Webern began employing serial techniques in his pieces he had already developed a very individual style of composition, distinguished by its brevity, an aversion towards protracted development and favouring certain intervals (7^{ths} and 9^{ths}) (Bailey, Oxford Music Online). In fact even before serialism was 'invented', he wrote about his Sechs Bagatellen that "When all the twelve notes have gone by, the piece is over" (Perle 1990: 178-179). Adorno stated that dodecaphonic procedures caused music to become "the result of a process that determines the music without revealing itself" (Mertens 1983: 97). In Webern's case and in particular his

²⁰ Although Webern has not left us with any works which can really be considered large-scale, both Kurtág and Skempton have written a number of longer works, for example the former composer's 15minute Opus 27 Double Concerto for cello (1989-90) and the latter's Lento (1990) which lasts for approximately 13-14 minutes (Potter 1991: 126).

Variations, the organising principles may be imperceptible but the characteristics which determine them are defining features of the music. His unique processes and preference for *tectonic balance* mean that whereas the form is defined by the row, the row itself is defined by the limitations Webern places upon it (F.S. 1949).

Of Webern, George Perle states, "The brevity of his compositions is... inseparably correlative to every other feature of his compositional language" (Perle 1990: 45-46). In a similar way to Skempton's pieces, this language consists of processes that are intuitively adapted and framed within a narrow scope to bring out the 'purity' of the underlying idea. When dealing with a compositional technique that distances itself from explicit form, Webern's music is "Small for the sake of comprehensibility as opposed to bewilderment" (F.S. 1949: Preface). This statement might equally apply to a lot of Kurtág's music.

With his four sets of 'microludes', Kurtág attempts to establish a large-scale structure based on 12 individual fragments; each of the movements is based on a different note of the chromatic scale. Margaret McLay states that "The very minuteness of this basic idea naturally means that the movements tend to brevity" (McLay, 1984: 17). It could be argued that the 'microlude' format provides the composer with a vehicle for binding together a selection of shorter movements, or expressive *iterations*, in a coherent way: coherent, that is, for Kurtág himself. As every movement deals with its assigned note in a different way, it is hardly likely that the overarching structure will be perceptible to the listener.

Discussing *Hommage à Mihály András*, 12 Microludes for string quartet, McLay goes on to state that "by providing links between the shorter movements, by including some more extended pieces, and by recalling the mood of previous movements as the work progresses" Kurtág manages to achieve stability (McLay 1984: 19). While this may be true, each movement still very much functions independently; they are not reliant on their companions to impart their musical content. Their sequence merely

²¹ Heinz-Klaus Metzger writes; "That a piece employs a twelve-tone row tells us nothing of its musical nature as conceived by the composer – this may in fact be found to be related to the twelve-tone row, but is in no respect determined by it" (Metzger 1959: 42).

²² Three of the sets are found in *Játékok* volumes II and III, the fourth is the framework for the composer's String Quartet *Hommage à Mihály András*.

emphasises the character of each movement by placing them in relief to complementary, or juxtaposing them with contrasting, material. The focus is, as before, on the expressive content of the miniature itself. Like Webern and Skempton, I would suggest that it is Kurtág's fixation on clarity that often deters him from writing longer movements. His preference for refinement is simply better suited to the miniature. Margaret McLay argues that "Although he is a miniaturist, it is in the Webernian sense of exploiting a minute idea to its full, thus creating a sense of completeness" (McLay 1984: 19).

In his approach to a phenomenology of music, Thomas Clifton argues that "A phenomenological description concentrates... upon essences, and attempts to uncover what there is about an object and its experience which is essential (or necessary)" (Clifton 1983: 9). This Sentiment is mirrored by Skempton's comment that a "concentration of attention" is crucial when it comes to expressing the *idea*. Indeed Skempton goes as far as saying "without economy there is no power; and without self-control there is nothing" (Nyman 1999: 167). It is as if the miniature composer strives to unveil the 'essence' by paring their material down to its barest incarnation. For Kurtág, this *idea* might typically take the shape of pure expression or 'speech'; for Webern it is an intervallic essence later embodied by the row and in Skempton's music it is the quintessence of the 'form' itself.

1.6 Concluding Remarks

The idea that each piece is concerned with a single process or concept is perhaps the most striking similarity of all the miniatures that I have explored in this chapter, regardless of how I have chosen to classify them. Of his *Epigrams*, Brian Ferneyhough asserts that "each brief movement enunciates and elaborates on a single premise" (Ferneyhough 1967, Preface). This sentiment also rings true for much, if not all, of Webern's music. Discussing the composer's *Sechs Bagatellen Für Streichquartett* (1909) Allen Forte states that "they are so individualized: each one seems to present its own musical idea, which is composed out in the most meticulous way" (Forte 1994: 174).

It is undeniable that some of the pieces I listened to appeared to have much clearer forms than others. Nonetheless, they all did correspond with one of my categories of form to a detectable extent. However, Skempton's pieces, which are based on intuitive organisation and aleatorical processes, were among those that seemed the least arbitrarily organised, while Stockhausen's *Klavierstücke III*, which he claims is the result of a number of strict serial processes, appeared to have the most loosely defined form. One explanation for this might be that Skempton's desire to communicate form means that in his music form will be paramount. Stockhausen, on the other hand, expresses no desire to communicate form, although some of his writings may indicate that he wants to express a single "personality" (Coenen 1994: 213). This might point towards the notion that the formal experience lies not only in the expression of the idea; it is an intrinsic property of the miniature itself. I will explore this further in Chapter 2.

In defence of his former pupil's music, Schönberg wrote that "Though the brevity of these pieces is a persuasive advocate for them, on the other hand that very brevity itself requires an advocate" (Schönberg 1959: 8). He passionately argues that the small scale of the music, or rather the moderation that is required to create it, is something that can only be understood by those who choose to embrace it. One is led to believe that Webern, through his refinement of material, condenses complex emotion into concise musical gestures. Schönberg even goes so far as to state that the music has the potential to "express a novel in a single gesture, a joy in a breath" (Schönberg 1959: 8). One can deduce that he considers brevity itself to be one of the foremost virtues of the composer's music. This sentiment resonates with Kurtág's compositional ethos; "It is a measure of his skill that he can create a composition of considerable attraction from such simple means" (McLay 1984: 23). Paul Griffiths states that Kurtág's "miniature forms virtually preclude syntax, and in that the disintegrated state of musical language extends the freedom of the gesture, as with Webern" (Griffiths 1995: 284). This freedom of the gesture could be seen as a freedom to express form across the boundaries of style and structural restrictions. If, as Skempton states, the form is "the single idea motivating the piece", I believe that this freedom is crucial (Nyman 1999: 167).

2.1 Introduction

Listening is 'making sense', trying to come up with the simplest and most plausible percept. (Handel 1989: 185)

I think the music of the future will emerge less from twentieth-century progressivist aesthetics than from newly acquired knowledge of the structure of musical perception and cognition. (Lerdahl 1992: 120)

It is a natural process for human beings to seek structure.²³ In fact the study of music is so preoccupied with this concept that it is indubitably the most common subject matter of musicology and its related disciplines.²⁴ The search takes place from the level of individual soundwaves, through the grammar of cells and sectional structures, to the macro-structure of the piece itself. My concern, however, is not with the 'physical' components of the score or indeed with the discernible architecture of the musical fabric as such. My aim is to confront the perception, or aural experience, of a piece of music according to the three basic categories of *form* which I laid out in Chapter 1 (on page 12): the *intuitive*, the *explicit* and the *implied*.

To begin, I will consider why form is important to the musical experience. Thereafter, I will argue that a narrowly restricted framework facilitates formal perception. I will then explore to what extent the limitations of memory define the temporal scope for formal perception. Next, I will investigate three separate theoretical models for musical coherence, and see how these might tackle formal cognition in the face of comparative structural complexity. I will conclude by explaining why I believe that a focus on form is important, if not essential, to contemporary art music.

Chapter 2 – Form: Memory and Perception

²³ Fred Lerdahl states that "Most of human cognition relies on hierarchical structuring" (Lerdahl 1992: 104).

²⁴ "One of the cornerstones of music theory—as well as theories of music cognition—is that music contains structure: that which distinguishes music from a merely random collection of sounds is that musical elements occur in specific order" (Levitin, Menon 2005: 563).

2.2 The importance of formal perception

Isolated sounds (surrounded by silence) can most easily be heard as objects... the beginning of the sound should be clearly defined so that it does not allow the listener to break it apart into two or more components. The end of the sound must disappear smoothly; otherwise, a listener will perceive a break and therefore another object. The law of common fate is involved here. Things that begin and end together have a good chance of being perceived as belonging together. If there are perceptible interruptions, the sound may break apart into two or more objects. If the sound lasts very long, musicians are likely to listen to component frequencies, noise components, beats, and other elements; and the object will lose its holistic identity. (Erickson 1982: 533)

Our comprehension of music and the pleasure we derive from it depends on our ability to perceive patterns. (West et al. 1985: 21)²⁵

It is widely held that "Perceptual systems assign elements to construct visual and auditory events out of the aggregate of elements in order to generate the most coherent perceptual events" (Handel 1989: 186). The notion of coherent perceptual events resonates with Erickson's holistic identity, which he alludes to in the quotation at the top of this section. However, while Erickson argues for the necessity of a traditionally shaped musical envelope in order to allow for the perception of coherence, Siu-Lan Tan et al.'s study (2006) questions whether or not this is actually the case. In fact their experiments demonstrate that after repeated exposure, patchwork compositions (a fusion of three separate musical extracts) are often rated to have a higher measure of "unity" than complete compositions. Tan et al. attribute their results to a number of factors, including a "contrast effect" (single compositions sound less complex when juxtaposed with patchwork compositions), and the notion that, with increased exposure the participants were "less accurate at detecting *lack...* of overall coherence" (Tan et al. 2006: 417). I would, however, argue that the reasons for this surprising result are more likely to lie in Handel's contention, cited above, that "Perceptual systems... generate the most coherent perceptual events" (Handel 1989: 186).

²⁵ While West et al.'s study focuses primarily on internal organisation I believe the sentiment of the statement might equally apply on a larger scale in terms of formal coherence.

The musical examples which were used in Tan et al.'s experiment consisted of short but complete classical piano solos "of about 1 minute in length" and patchworks linking three different extracts of "about 20 seconds in length" (Tan et al. 2006: 411). Seen in light of my framework for *formal* classification in Chapter 1, it is likely that upon a first hearing, each incomplete 20-second fragment would, just like each complete piece, be experienced as having an *intuitive form*. In terms of musical organisation, they are based on 'voice-leading' and the 'laws of harmony' and there are no clear signs of external structural architecture. I would, however, suggest that repeated exposure to the pieces will shift the listener's attention away from the musical surface, to the overall formal dimension of the extract. If we take it as a given that "perceptual systems assign elements... in order to generate the most coherent perceptual events" (Handel 1989: 186), a sequence of three different sections might be seen as just that. It is a coherent contrasting of unlike materials of equal proportions. Rather than relying upon an 'irrational' learned concept of voice-leading to determine the form, we are relying upon the basic cognitive principle of "hierarchical structuring" (Lerdahl 1992: 104). In other words, the *formal* experience changes upon further exposure; the experience becomes that of an *explicit*, rather than an *intuitive*, form.

Fred Lerdahl writes that "Comprehension takes place when the perceiver is able to assign a precise mental representation to what is perceived" (Lerdahl 1992: 98). This is further supported by his remarks on Boulez' *Le Marteau sans Maître* (1954). He claims that the intricate serial procedures of this piece lead to "a situation in which the listener cannot form a detailed mental representation of the music. The result is a piece that sounds partly patterned and partly stochastic" (Lerdahl 1992: 98). In fact he goes as far as to say that that such a schism between "compositional grammar" and "listening grammar" is "a fundamental problem of contemporary music. It divorces method from intuition" (Lerdahl 1992: 100). Perhaps equally important then, to the experience of 'unity' in Tan et al's study, is the fact that the appreciation (they employ the term "like") of the patchwork compositions increased linearly with the participants' exposure to them (Tan et al. 2006: 407). A natural implication of this is

that the piece was 'liked' more, in proportion to the enhancement of the clarity of the *formal* experience.²⁶

2.3 Memory and Experiential Time

While clarity may be essential for the appreciation of form it does not necessarily follow that the clearer a form is, the more it will be 'liked'.²⁷ However, it could be argued that a certain measure of clarity is required to allow for formal awareness to take place at all. In the following section I will postulate that the limited scope of the miniature facilitates such an awareness. First I will look at one of Stockhausen's theoretical concepts, that of *experiential time*. Consider the following quotation:

When we hear a piece of music, processes of alteration follow each other at varying speeds; we have now more time to grasp the alterations, now less. Accordingly, anything that is immediately repeated, or that we can recollect, is grasped more rapidly than others. We experience the passage of time in the intervals between the alterations: when nothing alters at all, we lose our orientation in time. Thus even the repetition of an event is an alteration: something happens – then nothing happens – then something happens again. Even within a single process we experience alterations; it begins, it ends. (Stockhausen 1959: 64)

Stockhausen argues that a segment of music, which is comprised of individual cells, can be described according to its *experiential time*. This approach requires that each event, or *process of alteration* within any musical parameter, is assessed according to its *degree* and the *density of alteration*; to what extent an event differs from previous events and the rate of change at which the alterations occur. The consequence of this is that if a segment of music produces short *experiential time* (high *degree* and *density of alteration*) we have little scope to digest each change and vice versa. Let us couple this concept with the following statement made by Christine Skarada:

_

²⁶ It may seem that Tan et al. fall into a trap of their own devising, set up by the following statement; "it is not known whether the devices that provide unity in a compositional sense also provide unity in a perceptual sense" (Tan et al. 2006: 408). By their process of 're-composing' the pieces, they provide a sense of 'unity' they had not anticipated.

²⁷ Various methods have been devised to measure the degree of such a notion, the 'U-shaped hypothesis' being perhaps the most obvious example (Orr and Ohlsson 2005). I have chosen not to assess this sphere of musical appreciation, as such a discussion cannot be accommodated within the scope of this commentary.

The future is the ever-present element of expectation that accompanies all of our present experience... That which we expect, is dependent upon the "types" of relevant occurrences from our past and upon the assumption that such types will continue to prevail in the future. (Skarada 1989: 66-67)

With this in mind, *memory* and *expectation* are significant in determining how we perceive music. If the density of alteration is high, we have little scope to digest the past and therefore little scope to *expect* the future. Following this rationale one might argue that if all of our attention is focused on experiencing the present, our notion of past events becomes increasingly vague. Consequently, our ability to perceive *form* is gradually impaired. Therefore, the higher the density of alteration, the smaller the scale needs to be for form to be perceptible. ²⁸ In the following section I will assess this claim with reference to the psychological model of *working memory*.

2.4 The Limitations of Working Memory.

Creators in the temporal arts – music, cinema, dance – often devote a great deal of energy and imagination to the formal aspects of their works. Given that such forms can extend over several minutes, several tens of minutes, and in rare cases several hours, one wonders at times what the subjective reality of such forms might be, if one takes into account human memory limitations. (McAdams et al. 2004: 297-298)

Working memory has a limited capacity. (Levitin 1999: 211)

A key concept in defining the limitations of our capacity for processing information in real time is that of *working memory*. Cowan et al. define this as "the set of mental processes holding limited information in a temporary accessible state in service of cognition" (Cowan et al. 2005: 42). This idea is closely related to the "simple, traditional concept... the scope of attention" (Cowan et al. 2005: 90). I will employ the notion of *working memory* to illustrate why "the listener does not initially remember exactly what was heard, but remembers certain global features of the overall pattern" (Dowling et al. 2002: 272).

21

²⁸ The notion of decreased *experiential time* bred by familiarity might account for the change in the formal experience among the participants in Tan et al.'s study, which I outlined on pages 19 to 20.

Using a linguistic model, Morton Ann Gernsbacher performed a series of experiments with a view to ascertaining "why surface information [the specific order of events, disregarding context] is lost" (Gernsbacher 1985: 324). ²⁹ By exposing her subjects to a series of picture stories she ascertains that it is lost "According to the processing shift hypothesis... because information represented in a particular substructure is most available during the active processing of that substructure. Once a processing shift has occurred, information represented in the previous substructure becomes less available" (Gernsbacher 1985: 351). However, "Because thematic content [the 'gist' of story] is less rapidly changing than word order [surface structure], thematic information probably receives more enhancement than surface information" (Gernsbacher 1985: 351). However, "with unrelated sentences, surface information is no longer more rapidly changing than thematic information; therefore it will be less suppressed and more likely to be enhanced" (Gernsbacher 1985: 525).

Other research indicates that the *processing shift hypothesis* might also apply on a more fundamental level. Frey et al. stipulate that if one arranges music into "Temporal Semantic Units" (TSU), "an automatic shift of attention" occurs where each of these changes take place (Frey et al. 2009: 247). With this information in mind, it could be argued that "temporarily accessible" *working memory* is lost every time a processing shift occurs, be it on a cellular or a thematic level. In other words, regardless of the scope of the extract, our perception of the unfolding of events will force our attention to a higher level of structural organisation every time a *processing shift* occurs within that structural hierarchy. It follows that for each 'structural expansion' our ability to perceive *form* will be impaired.

_

²⁹ While the use of a linguistic model may be frowned upon by some, it can be defended by referring to the neurological processes related to cognition. Levitin and Menon speculate that the "particular region of inferior frontal cortex [which is associated with the processing of linguistic structure] may be more generally responsible for processing fine-structured stimuli that evolve over time, not merely those that are linguistic" (Levitin, Menon 2005: 563). In fact they continue: "Musical and linguistic processing share common neural substrates" (Levitin, Menon 2005: 570).

³⁰ This theory is supported by Fred Lerdahl's comment on Boulez' *Le Marteau sans Maître*. He states that "there is little repetition in *Le Marteau*. The lack of redundancy perhaps overwhelms the listener's processing capacities" (Lerdahl 1992: 97). However he goes on to say that "Vast numbers of non-redundant events fly by, but the effect is of a smooth sheen of pretty sounds. The listener's processing capacities, in short, are not overwhelmed" (Lerdahl 1992: 98). Following the *processing shift hypothesis*, one could argue that this is because we have transcended the perception of surface information to a dimension of formal cognition.

If we apply this idea to music, the listener is more likely to recall the surface information of a musical segment if it is perceived as a short coherent 'unit'. This rings true with Erickson's statement on page 19, that "If there are perceptible interruptions, the sound may break apart into two or more objects" (Erickson 1982: 533). However, if several separate 'units' are heard, the listener is more likely to recall the 'gist' of these units, or perhaps even the overall 'gist' of their combined structure. As we can only retain a limited amount of information, the greater the dimensions, the more our capacity for the cognition of formal clarity diminishes. Equally, if the experience is too *complex* we will not be able to perceive a clear form.

In terms of experience, it could be argued that a performer has a better structural memory than one who is not used to having to remember large chunks of musical information. In fact Jakobsen et al. argue that "musical training strengthens auditory temporal-order processing" (Jakobsen et al. 2003: 307). While this may be true, Dowling et al. state that "In the present studies, musically untrained listeners showed the same implicit sensitivity to aspects of musical structure displayed by moderately trained musicians" (Dowling et al. 2001: 274). In other words, one's capacity for internalising surface information does not necessarily impact on one's ability to perceive *form*. In any case, memory is not a constant, rather it is "always changing; sometimes it improves; sometimes it gets worse; rarely does it stay the same" (Dowling et al. 2001: 249).

2.5 Cognitive Psychology and Simple vs. Complex Structures

There is a growing consensus that memory serves a dual function: it abstracts general rules from specific experiences, and it preserves to a great degree some of the details of those specific experiences. (Levitin 1999: 225)

Regular patterns are, as a rule, more readily comprehended and remembered than irregular ones. (Meyer 1987: 35)

A number of commentators have applied the Gestalt principles of grouping, as well as other psychological models, to cognitive analyses of music, particularly as a tool for understanding our perception of a given musical environment.³¹ Furthermore, it can be argued that our perception of *form* is quite different to the perception of specific sonic components. Indeed it is "An established fact in neuroscience… that form perception and location perception follow different pathways" (Levitin 1999: 219). With this in mind, I will briefly attempt to relate certain principles of Gestalt psychology to the *formal* experience.

The notion of grouping according to *proximity* implies that "Things that are located close together are likely to be grouped as being part of the same object" (Shepard 1999: 32). This could explain how a short segment of music may be comprehended as a coherent unit, whilst a larger one might not, even if the musical surface is comparable. One might even take this method one step further and apply a specific Gestalt principle to each of my formal categories (see Table 2). Grouping according to *good continuation*, or the idea that "elements that follow each other in a given direction are perceived together", might serve as a description for *intuitive form* (Deutsch 1982: 100-101). Similarly, *similarity*, or "configurations [that] are formed out of like elements", might account for the perception of *explicit form* (Deutsch 1982: 100). The Gestalt principle of *symmetry and closure*, the idea that "symmetrical and enclosed objects tend to be grouped together", can be linked to my own concept of *implied form*, as such *forms* are characteristically typified by a sense of *tectonic balance* (Handel 1989: 187).

Table 2: Form-types and Gestalt Grouping Principles

Form-	Intuitive Form Iteration	Explicit Form	Implied Form
Type		Coherence	Tectonic Balance
Gestalt Grouping Principle	Good Continuation	Similarity	Symmetry and Closure

Moving from the conceptual plane to the syntagmatic perspective; the *contour*, or "pattern of 'up' and 'down' motion", in music is often considered to be more important when it comes to describing the 'gist' of a musical segment than the

_

³¹ Diana Deutsch states that "It seems reasonable to suppose...that grouping in conformity with such principles enables us to interpret our environment most effectively" (Deutsch 1982: 101).

specifics of its 'physical' structure (Levitin 1999: 214-215). In fact, as Daniel J. Levitin states, "there is a large body of research showing that our memory for details is actually pretty poor... people tend not to have a very good memory for the exact words of a conversation, but instead remember the 'gist' of the conversation" (Levitin 1999: 212). The idea that a segment of music is remembered by its conceptual 'shape' rather than a specific succession of intervals further helps corroborate my theory that music is experienced through abstract *formal* principles. In the light of the limitations of *working memory*, it follows that the 'shape' of a piece can only be perceived and recalled as a coherent unit if its scope is restricted to a limited degree of *complicatedness* (by which I mean the rate of *processes of alteration* per temporal unit) and *complexity* (density of structural interconnectedness, measured in *experiential time*). 33

Let us consider the notion of musical complexity in the light of yet another psychological concept, that of a horizontal organisation of linear *streams*. Bergman and Campbell describe a *stream* as "a sequence of auditory events whose elements are related perceptually to one another, the stream being segregated perceptually from other co-occurring events" (Erickson 1982: 524). In contrast to *contour*, it has been proven that the shorter the exposure to a multi-layered sound, the less likely it is that all the *streams* will be identified. Consequently, a certain length of exposure is required for every perceptible layer of a composite sound to be audible. However, referring again to the limitations of *working memory*, it follows that the more *complex* a single *stream* is, the shorter it must be for it to be perceived as a coherent unit. If there is more than one layer, additional limitations are imposed upon the temporal scope for *formal* cognition. This further helps to corroborate my theory that the degree of musical *complexity* (or ratio of *experiential time*) defines the temporal threshold for the perception of *form*.

-

³² *Contour* is perhaps even more relevant in post-tonal music. Judy Edworthy argues that the more difficulty there is in establishing a key the more "contour appears to be important" (Edworthy 1985: 184).

³³ Although Lerdahl does not refer to Stockhausen's theories, my distinction owes a lot to his differentiation between the two terms (Lerdahl 1992: 118).

 $^{^{34}}$ Following the account of an experiment where musicians only managed to identify 3-4 layers of 6 and 7 layered sounds from 2-3 seconds of exposure, Robert Erickson states that "we fuse sounds when times are short; if more time is available, we follow streams of sound" (Erickson 1982: 522).

³⁵ Stockhausen states that a maximum of 6 layers can be identified at any one time (Stockhausen 1989: 105).

2.6 Concluding Remarks

From my investigations in this chapter, I would argue that the experience of form is essential to musical appreciation. This can be facilitated by the composer through the use of a single idea and an awareness of the fact that our cognition of musical detail and structure is restricted by the limitations of *working memory*. It follows that if a piece, movement, or individual musical segment is to be comprehended as a 'unit' or 'whole', its duration must be determined by its degree of complexity. Lerdahl writes that there is a problem with recent music in that it does not relate "compositional grammar" to "listening grammar" (Lerdahl 1992: 100). ³⁶ I believe that this problem is symptomatic of a lot of contemporary art music, where extended serial processes, 'new complexity' and 'spectralism' as well as methods of organisation deriving from magic squares, number sequences or indeed any other type of in-depth organisation of musical parameters, typically produces results where the immediate *formal* experience is considered to be of subsidiary concern. ³⁷ As Michael Nyman states, modernist composers are "less interested in how a piece sounds than how it is made" (Potter 1991: 128).

As a rule, it is my goal that the *form* of my pieces be revealed, rather than hidden by the compositional process. While this is certainly possible in all musical formats, I believe that a small scale often facilitates it. Whereas our musical styles are certainly very different, I can relate to the notion that "Webern's circumscription of his musical material was designed to achieve coherence and homogeneity, to obtain the greatest possible unity" (Brindle 1987: 9).

-

³⁶ There is a body of research that suggests that this is not necessarily a recent phenomenon. After performing an experiment with whole and hybrid (patchworks of two) Mozart piano sonatas (K. 280 and K. 332) Eitan and Granot suggest that "inner form and its supposed organic unity, presumed tenets of musical genius, may not affect listeners' evaluation" (Eitan and Granot 2008: 397) of a composition. Their results even point towards a general "inability to perceive (or a disregard for) large-scale structure" (Eitan 2008: 416). This is supported by McAdams et al.'s findings based on the "response to a contemporary piece in a live concert setting" (McAdams et al. 2004: 297).

³⁷ This is not only a recent concern. Felix Salzer stated in 1952 that: "Today's musical crisis centres on the problem of tonality. Tonality, new tonality, atonality, polytonality, twelve-tone music, new classicism, impressionism–all these terms may symbolize various and often conflicting currents, but they vitally concern the substance of musical language... Our period, however, is completely at odds about basic conceptions of musical utterance and coherence" (Salzer 1982: 5).

In phenomenological terms, "Gadamer argues that an essential ingredient in having a genuine experience (*Erfahrung*) is the element of surprise: it is precisely when we do not expect something that it affects us the most" (Benson 2003: 118). The 'element of surprise' will always be acutely present in a format that is anchored in presenting a single *idea* with careful moderation. In some cases, an entire *miniature* might itself be seen as a 'surprise' providing the *density of change* is constructed in such a way that a short *experiential time* is sustained throughout.

I would like to conclude by returning to my assumption that formal coherence is more likely to be experienced in pieces that are based on a single *idea* (see page 16). An experiment performed by Stacey Davis found that when examples of Bach's music were "recomposed to diminish the sense of counterpoint", the listeners' "judgment of engagingness were significantly [negatively] affected" (Davis 2006: 423). This speaks for the idea that when formal expression becomes vague, the level of appreciation decreases. Fred Lerdahl writes that "Comprehension takes place when the perceiver is able to assign a precise mental representation to what is perceived" (Lerdahl 1992: 98). If we assume that the "listener's cognition... [of large scale structure is] based on deep (perhaps admirable) faith only" (Eitan 2008: 416), it follows that formal cognition must take place on a smaller scale. Such a scale is epitomised by the miniature.

3.1 Introduction

The two previous chapters were written to give an insight into a number of the theories that influence the way I conceptualise music. I have not yet, however, described how these ideas actually relate to my own compositional process. Neither have I considered the issue of musical style, although I have mentioned (on page 11) that I believe this notion is not necessarily confined to particular 'forms' in contemporary art music. In a musical world that might be portrayed as an intricate tapestry of 'styles' it seems pertinent to assess how my own compositions fit into this fabric. In line with these concerns, I will begin this chapter by exploring how the theoretical concepts I have looked at so far can be applied to the compositional process. Next, I will explore how I approach the notions of intuition and style.

3.2 Theory

Let us presume, as I argued in Chapter 2 (see pages 27 and 28), that the cognition of form, combined with the notion of expectation and consequently surprise, is seminal to a musical experience. The importance of expectation is certainly well documented, indeed Leonard Meyer proposed that "expectations play the central psychological role in musical emotions" (Krumhansl 2002: 45). However, while such principles may be clearly identifiable in 'tonal' music, their place in 'non-tonal' music is a lot more ambiguous; how can a composer address musical expectation if he or she cannot rely upon "the formation of structural representations" within a strict hierarchical system (Dibben 1994: 25)? One approach might be to attempt to control or manipulate a potential formal experience in the light of a specific psychological or theoretical model. Alternatively, one can acknowledge the formal dimension and its constraints and adapt one's approach to composition accordingly. For the latter approach, the miniature is certainly an accommodating format. However, the composer is not

³⁸ Nicola Dibben states that "whereas the tonal system allows events within a tonal work to be heard within a strict hierarchy, no such hierarchy exists for atonal music" (Dibben 1994: 1). While she does specifically refer to 'atonal music' her experiments differentiate between tonal harmonic sequences and randomised successions of tonal chords. I surmise that her use of the term 'atonal music' refers to non-tonal music rather than the specific musical style/period.

necessarily confined to this medium. In fact a number of composers have devised methods for subdividing large-scale structures into smaller units, to which the notion of *formal* cohesion might still apply.

Stockhausen's *moment form* implies that a piece of any length can be separated into "form units, characterised by a specific 'personality'" (Coenen 1994: 213). He further stipulates that:

In recent years musical forms have been composed to which one cannot from the present predict with certainty the direction of development... forms in which each now is not regarded untiringly as a mere result of the immediately preceding one or as the prelude to the one that is approaching... but rather as something personal, autonomous, centered, independent, absolute. (Stockhausen cited by Hasty 1986: 60)

As well as the notion of *experiential* time, this *moment theory* has a significant impact on my approach to composition. However, when Stockhausen speaks of "Forms... [where] vertical slices... cut across horizontal time experience into the timelessness which I call eternity: an eternity... that is attainable in every moment" (Hasty 1986: 60-61) he is in my opinion circumventing the actuality of musical perception. On this point I would concur with Christopher Hasty when he states that "The assertion that in new music events are necessarily disconnected and that this discontinuity is so absolute as to negate temporal succession is... unfounded" (Hasty 1986: 72).

In his first lecture at the 46th *Internationale Ferienkurse für Neue Musik* in Darmstadt (11th July 2008), Brian Ferneyhough specifically stated that his compositional approach "is very different" to Stockhausen's. Nonetheless, he has written a number of pieces with a similar segmentational arrangement to that of 'moment form'. The composer's *Sonatas for String Quartet* (1967) is divided into 24 separate sections which are, according to Michael Finnissy, characterised by "economy" and "formal clarity" (Finnissy 1977: 35-36). Ferneyhough has returned to small-scale units in a recent piece for string quartet, *Exordium* (2008). In his introduction to the piece, which lasts for approximately seven minutes, he states that it elevates "the non-sequitur to a formal principle" (Ferneyhough 2008: Preface). The piece is divided into 43 separate sections, each of which is as short and consistent in character as all but the

very briefest of Kurtág's compositions. Nevertheless, it must be said that I myself do not experience formal clarity in either of these pieces. Due to the temporal nature of musical performance, even the *non-sequiturs* of *Exordium* are to me reduced to a syntagmatic succession of musical material where the prolificacy of non-redundant events rarely loses momentum; the result is that my processing faculties are overwhelmed.

From the two brief examples above, it would appear that the idea of subdividing a piece into smaller units does not, on its own, allow for the experience of formal cohesion on a large scale. In fact, based on my investigations in Chapter 2, I would argue that there are only two possible approaches for a composer who wishes to write protracted musical structures whilst retaining clear formal features. Either one can shape the surface material so that it generates a short experiential time (low ratio of change and non-redundant events) such as might be perceived in extended minimalist works and pieces with a small compass of material, or one can insert pauses or silence in the music to allow for the material to be processed. The latter clearly relates to the miniature format, as employed by Kurtág in his sets of microludes.

It could be argued that our *listening grammar* is anchored in "associational properties" (Dibben 1994: 25). Accordingly, I believe that a composer must be crucially aware of his or her own subjective experience of the music throughout the compositional process. This means not merely taking our *listening grammar* into account when we draw out our structural process; it means basing the latter decisively on our 'heard structure' (Lerdahl 1992: 99).

3.3 Intuition and Style

The dialectic of whole and part, of similarity and difference, create a vast field for the play of form. (Hasty 1986: 72)

The majority of my music is primarily based on intuitive decisions. While this indubitably plays an important part in every composer's process, some follow structural procedures more rigorously than others. Nonetheless, even a strict employment of chance procedures or computational algorithms is intrinsically subject

to a number of conscious choices, such as framing or instrumentation. In other words there is always compositional intent; the difference between composers is at what stage they allow intuitive decisions to impart upon the compositional process.

Although I approach form in a fairly methodical manner, my musical material is often intuitively devised. Similarly, my attitude towards style is quite free and instinctive. In fact, I often work with different, even disparate, musical techniques without showing preference for a particular stylistic aesthetic. In fact, I would argue that in order to bring the consanguinity of expectation and surprise to its fullest potential, it might even be necessary to contrast or juxtapose, not only different musical characters but also what some might call different 'styles', within a single composition.

The fact that I often play different characters, or even styles, against one another might naturally lead to the assumption that I follow a dialectical model for composition, such as proposed by Christopher Hasty (Hasty 1986: 72). While this concept has certainly occurred to me, it is not something that I follow rigorously. Nonetheless I am crucially aware of musical context. A juxtaposition of two different, perhaps diametrically opposing, musical segments can have a significant impact on how the character of the second is experienced and how the first is recalled. Referring back to the previous section, this is where my principles diverge from Stockhausen's model of *moment form*. I believe the order in which the *moments* are heard has a significant impact on how they are experienced.

If I were to try to describe a theoretical model for my stylistic approach, it might be related to the notion of "tension and release". There is a body of research which suggests that "the concept of musical tension... [links] the cognition of musical structures with musical emotions" (Krumhansl 2002: 45). Moreover, Carol Krumhansl stipulates that "the interplay between expectations and the sounded events is hypothesized to play a central role in creating musical tension and relaxation" (Krumhansl 2002: 45). In this sense, the concept might be said to be intrinsically linked to the notion of *listening grammar*. While, in the compositional process itself, I pay no more heed to such an analytical model than I do to a dialectical approach, both principles are important to how I conceptualise music. To make another physical analogy, just as the iciness of frozen water might emphasise the experience of the heat

in a sauna, where a particularly complex passage gives way to an explicitly 'simple' one, the experience of the latter will be emphasised in light of the former.

3.4 Concluding Remarks

When I write music, I am always conscious of form, the notions of expectation and surprise, and the fact that our musical appreciation is dependant on our faculties for processing material in real time. I often employ different musical styles in conjunction with one another in order to emphasise their individual characters and although I have no definitive stylistic preferences as such, the relative complexity of the music does define my temporal boundaries for it. It is important to note that I employ the attributes of a style for its musical characteristics rather than its structural merit.

As a rule, each movement I write is based on one idea; or at least they are intended to 'do one thing' and most likely this, in addition to their relative brevity, facilitates formal cognition. While my pieces are not all strictly speaking miniatures, I am always concerned with formal clarity. Whether I decide to compose miniatures or not, it is essential that the framework facilitates the appreciation of the underlying idea. Stockhausen has stated that a "given material determines its own best form according to its inner nature" (Stockhausen 1989: 111). While for some this may be the case, for me it is the inner 'nature of the composer that determines the structure of a given material.

4.1 Introduction – Context

I will begin the commentary on my own music by examining the earliest composition in my portfolio, *Symphony No. 104*. The piece was originally written for the Durham University Orchestral Society in late 2006 and revised in 2009. It was premiered by DOUS in The Sage Gateshead on February 14th 2007, with Matthew Taylor conducting.

The fact that the piece was written for a student orchestra, most of whom were unfamiliar with contemporary art music, had a significant impact on how it was conceived. Through conversations with a number of the students, I became aware that they expected me to produce a relatively 'tonal' composition. I had also heard, through Martyn Harry, that Matthew Taylor was a great advocate of Haydn's music. A combination of these factors significantly influenced my structural and conceptual considerations for the music.

4.2 The Idea and the Haydn' Quotations

The idea to have an 'inner' structure based on Haydn's 104th symphony, my own favourite among his symphonies, emerged early on in the compositional process. The intention was to use it as an underlying pedestal for my own work; it lies beneath, as a symbol of the 'conventional' conception of the symphony, and occasionally breaks through to the surface in the form of direct quotations. Haydn's piece also provided me with the musical fabric for two of the movements; the pitch-sequence for VI and the material for VIII.

Phenomenologically speaking, I would argue that the experience of the Haydn quotations is informed by the music that surrounds them, and vice versa. Clifton writes that "A Beethoven symphony sounds the way it does because we have heard *Pierrot Lunaire*; and it is not altogether facetious to say that Webern influenced the texture of Brahms's Intermezzo in E Minor op. 116 no. 5" (Clifton 1983: 237). One

might surmise that this sort of relationship is amplified, when the contrasting styles are in close proximity. Referring back to my arguments on stylistic juxtaposition on page 32, it could be said that extreme contrast puts even more emphasis on the character of the material. This is certainly my experience, as can be illustrated by the entry of the *Pavanna Lachrymae* enters in George Crumb's *Black Angels* (Crumb 1971).

At the time of composition I was particularly preoccupied with the notion of a 'Webernesque' concentration of material and Stockhausen's *moment theory*. As a result I decided to write 11 miniatures, rather than three movements as I had originally planned (see Table 3).

4.3 Structure and Process

The structure of *Symphony No. 104* is akin to that of Kurtág's microludes, which I referred to in Chapter 1 (on page 15). There are a number of overarching structural processes in place; however, the immediate structural dimension is confined to each individual movement. As in the microludes, the macro-structure is, most likely, only significant to the composer. Nevertheless, I will attempt a brief account of it, as well as an outline of the compositional process, below (see Table 3).

Originally I decided to limit the number of notes in each movement, ranging from three to twelve in order to give each movement a specific harmonic identity. Movement V (originally VI), functioned as a pivot around which the others were arranged. The whole piece opens with a single [A\mathbf{1}] in the oboe, mimicking the sound of the orchestra tuning up, followed directly by the opening chord of the first movement. This is a clear example of eliciting surprise through the subversion of expectation, which I referred to in Chapter 3 (page 29). Similarly, the final movement ends with two sustained notes [C and C\mathbf{1}] in the cor anglais and oboe. This completes the two-way development, from one note at the beginning to twelve in the final movement.

Table 3: The Macro-Structure of Symphony No. 104

c10-5t1t	icture	п Зунгрі	Tuble of the inacto of actual of symphony 10. 101									
etches	5:											
ent I			Mov	ement	II		Mo	oveme	nt III			
B'			'Io	lea C'				'Idea	A'			
HONY	•		Sī	TASIS			РО	LYPE	IONY			
		Potent	ial Mu	sical (Charact	ters:						
Gradual 'speeding up' of music and development of material. Homophonic events. Static texture, built up gradually through a structural crescendo. Soloistic gestures. A thickening of the texture from a single line to a complex body of movement.												
in th	e Fina	al Mo	veme	nts:								
VIII			II	, V, X			II, I	V, VII	, IX, X	I		
lowing p	ore-	Intuitively framed; melodies and chords are based on the same					Intuitively phrased melodic lines constructed from the number of notes given.					
Strictly speaking movement VII might be seen as a combination of ideas A and C, and IX as a mixture of A and B.												
d B.	Macro	-Struc	ture of	the Fi	nal Mo	ovem	ents:					
d B.	Macro II	-Struct	ture of	the Fi	nal Mo	ovem VII	ents:	IX	X	XI		
d B.								IX 10	X 4	XI 12		
d B.	II	III	IV 5	V	VI 7	VII	VIII					
	etches ent I B' HONY g up' of at of mat ac events in the VIII a-musicalowing pructures	etches: ent I B' HONY g up' of music at of material. c events. in the Final VIII a-musically' lowing pre-ructures.	etches: ent I B' HONY Potent g up' of music to of material. throuse events. in the Final Mo VIII a-musically' lowing pre- ructures.	etches: ent I Move B' 'Ic HONY ST Potential Mu g up' of music at of material. c events. Soloist in the Final Moveme VIII III a-musically' lowing pre-ructures. tor	etches: ent I Movement B' 'Idea C' HONY STASIS Potential Musical C g up' of music at of material. c events. Soloistic gesture in the Final Movements: VIII III, V, X a-musically' lowing pre-ructures. Intuitively framed; me chords are based on tone-row.	ent I Movement II B' 'Idea C' HONY STASIS Potential Musical Charact g up' of music at of material. c events. Static texture, built up gradua through a structural crescend Soloistic gestures. In the Final Movements: VIII III, V, X a-musically' lowing pre- ructures. Intuitively framed; melodies a chords are based on the sam tone-row.	etches: ent I	etches: ent I Movement II Mo B' 'Idea C' HONY STASIS PO Potential Musical Characters: g up' of music at of material. c events. Soloistic gestures. in the Final Movements: VIII III, V, X II, III, V, X III, III, V, X III, IIII, V, X III, IIIIIIIIII	etches: ent I Movement II 'Idea C' 'Idea C' HONY STASIS POLYPHONY STASIS POLYPHONY STASIS POLYPHONY Potential Musical Characters: g up' of music at of material. Static texture, built up gradually through a structural crescendo. Soloistic gestures. A thickening of the a single line to a confine of movements: In the Final Movements: WIII III, V, X II, IV, VII armusically' Intuitively framed; melodies and lowing prechords are based on the same lines constructed tone-row. In umber of not growement VII might be seen as a combination of ideas A and Compared to the same lines constructed tone-row.	ent I Movement II Movement III B' 'Idea C' 'Idea A' HONY STASIS POLYPHONY Potential Musical Characters: g up' of music at of material. c events. Static texture, built up gradually through a structural crescendo. Soloistic gestures. In the Final Movements: VIII III, V, X II, IV, VII, IX, X II,		

The second of my structural 'restraints' was that the piece develop from a homophonic texture to one consisting of polyphonic passages on a chordal basis in movements I - III - V - VIII and X. This interlocks with the development from a simple melody in movement II, through movements IV - VII and IX, to an octuple 'fugue' in movement XI. This process is unlikely to be audible to the listener; however it did give me a 'tidy' structural framework to refer to.

The final structural dimension that I employed consists of three 12-tone rows (see Figure 1). The intention was that these were to provide all of the melodic and harmonic material for the piece. This concept became gradually less dominant throughout the compositional process. Nonetheless, a lot of the material is still based on them. The 'themes' in IV and VII are directly derived from a combination of rows 1 and 2. These, as well as their inversions and retrogrades, also provided the solo material for movement VI; the opening chord of the movement is derived from row 3.

All of the rows, together with their inversions and retrogrades provide the subjects and counterpoint for the fugue in the final movement.

Figure 1: 12-Tone Rows in Symphony No. 104



4.4 Intuition and Form

The procedures outlined in the section above certainly dominated the construction of *Symphony No. 104*. However, their structural bonds were loosened, or broken, in several places, where I judged this to be necessary in order to bring out the compositional idea of each movement. A clear example of this can be seen at the end of II, where harmonic scope is expanded to six notes. On a macro-level, I decided to swap around movements V and VI, as well as VII and VIII, in order to make for what I conceived to be a better sequence of events. In principle, I let my *listening grammar* take precedence over the *compositional grammar* (Lerdahl 1992: 100). While this does somewhat undermine the overarching structure, I would argue that it is of no relevance to the listener.

While I had not yet formulated my theory of *form* at the time of composition, I have found that the musical 'characters' of *Symphony No. 104*, essentially overlap with my *formal* categories (see Table 4). This might be accounted for by the fact that, in principle, each movement was based on a single musical *idea*. I say 'in principle', as in some of the movements this is a lot clearer than in others. While movement I is to me a clear example of *explicit form*, III consists of nine differently presented ninenote chords. Consequently the formal experience is not as easily categorised as in the first movement. In my experience II, VII, IX and XI also have forms which I find difficult to confine to one category. Nonetheless, they give the impression of being complete and coherent units.

Table 4: Suggested Form-Type for Each Movement of Symphony No. 104

A = Intuitive	A = Intuitive B = Explicit C = Implied: potential secondary experience in brackets										
Movement I II III IV V VI VII VIII IX X X						XI					
Form-type	В	B(A)	A?	A	С	В	A(B)	В	A(B)	С	C(A)
'Idea'	В	A	С	A	С	В	A(C)	В	A(B)	С	С

4.5 Concluding Remarks

Symphony No. 104 is indubitably the most thoroughly pre-composed of the pieces in my portfolio. Nevertheless, each movement was conceived of as an individual musical moment, with one idea in mind. Some of the movements, such as I, II and VI, have clearer forms than others. However, they all have a formal potential at least equal to the vaguest of the pieces that I explored in Chapter 1. Although the macro-structure is quite restrictive, I have allowed my listening grammar to improve on the compositional grammar where I found the latter deficient.

5.1 From The Eumenides

From The Eumenides, for mezzo-soprano and cello was originally written as a set of three short miniatures (I, II and VII) in early 2007. It was later expanded to seven movements, two of which were used in a workshop with Kat Leigh and Louisa Tuck in February 2008, under the direction of HK Gruber. It was revised for a performance in Hamar, Norway, in June 2009.

5.1.1 Idea

The text for my piece consists of seven separate extracts from a translation of Aeschylus' play *The Eumenides* (Aeschylus 1974) (see Appendix A). My compositional intention was that the musical character of each movement would derive from my interpretation of the extracts. Accordingly, the surface narrative and aesthetic quality of the words were important to the conception of each movement. Although the narrative of the play did have an impact on me, it is not a defining feature of the composition.

5.1.2 Structure and Process

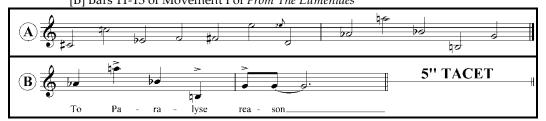
Each movement of *From The Eumenides* was conceived of independently. However, I decided to arrange them so that the macro-structure would impart a sense of overall cohesion. As a result, movement I has a similar character to IV, and movements II and III are based on similar structural processes to IV and V (see Table 5).

Table 5: Original Idea and Basic Structure of Each Movement in From The Eumenides

I	II	III	IV	V	VI	VII
Melody	Free melody	Melodic	Free	Free melody	Melodic	Transposing
based on a	over an	lines	melody	over a	lines	melodic line
tone-row	'authentic	without a	framed	slightly	without a	over a
and framed	cadence'	stable tonal	by	varied	stable tonal	restricted
by silence.	ostinato.	centre.	silence.	ostinato.	centre.	musical axis.
Quasi-serial	Quasi-tonal	Free tonal	Intuitive	Quasi-tonal	Free tonal	Tonal centre
structure.	organisation.	centres.	design.	organisation.	centres.	over 'flux'.

My intention for movement I was to bring out the underlying 'pathos' of the text. Accordingly, the pace of the song is slow and the melody is filled with silence; its reiterative nature matches the regularity of the verse. The intervallic repetition stems from the fact that the pitches were crafted from a 12-tone row (see Figure 2) which was devised so that the predominance of major 7^{ths} and minor 9^{ths} is contrasted by two 6^{ths} and a minor 3rd. What is more, the second section of the row was only used when I wanted to give particular emphasis to the text. The phrase "to paralyse reason" end on a minor sixth, which gives the final word the trace of a G major harmony (see Figure 2). The first movement ends in a cello passage, which is intended to complement the regularity of the vocal part and separate sections I and II.

Figure 2: [A] 12-Tone Row From Movement I of *From The Eumenides*[B] Bars 11-13 of Movement I of *From The Eumenides*



Movement IV briefly returns to the character of the first. Although the melody of the song is not serially structured, the intention is that listener will nonetheless experience a sense of familiarity or 'return' and through this, a sense of coherence on the macrolevel of the piece.

In contrast with the exposed solo-passages of I and IV, movements II and V employ a repeated ostinato in the cello while the vocal part follows a 'melodic train of thought'. The small variations in the cello part were intended to prevent a 'stagnation' of the musical material. Nevertheless, the regularity should furnishe both movements with a clear sense of unity. This approach could be argued to be related to Skempton's octave displacements in *A Humming Song* (see page 9). The relatively explicit structures of movements II and V are counterbalanced by III and VI, where the musical counterpoint flows freely, according to my intuitive framing of the text.

Like *Symphony No. 104* the macro-architecture of *From The Eumenides* is based on contrast and complementation of different musical characters. While the vocal line

gives way to a complementary cello passage in movement I, the pace and complicatedness of V stands in stark contrast to calmness of IV. As a final subversion of musical expectation, movement VII might be seen as a response to the previous six. Where, since movement II, the vocal line has been devoted to development and the cello to accompaniment, the final movement turns this on its head. For the first 19 bars, the cello line is in constant transposition, incessantly reaching for a new tonal centre, while the vocal line is confined to the notes G and D at the bottom of the mezzo-soprano register. After a brief section where the two change roles, the movement ends the way it began, with a static vocal line and free melody in the cello.

5.1.3 Form

As the extracts from Aeschylus' text are themselves iterations, their narrative nature indubitably imparts upon the formal experience of each movement. Nonetheless, movements I, II, V and to an extent VII lie, at least partly, within the realm of *explicit form*, due to their structural regularity. In a sense, the constancy of the process in one part frames the intuitive counterpoint in the other (see Table 6).

Table 6: Suggested Forms for Each Movement of From The Eumenides

A = Intuitive B = Explicit C = Implied: potential secondary experience in brackets									
I II III IV V VI VII									
A (B)	A (B)	A	A	A (B)	A	A (B)			

5.1.4 Concluding Remarks

Each movement of *From The Eumenides* is provided with a formal dimension due to the nature and brevity of the text. On a macro-level, however, the 'gist' of the texts is unlikely to be recalled as they do not fit into a large-scale narrative. Nevertheless, it was my intention that each movement can be perceived as a coherent unit, and therefore the entire piece as a coherent whole; that of a presentation of seven individual, yet related, musical worlds.

5.2 Lost Words

Lost Words is a cycle of 12 separate songs for a variety of instrumentations; from an alto solo (IX) to a movement for five singers and ensemble (XI). It was written for the students who took the Opera and Music Theatre course at Durham University in 2008-2009. The songs were composed from October to December 2008 for performances in January and March of 2009.

Although it was originally written for a music-theatre production, the piece is not restricted to this medium of performance. In fact, I consider the songs to be equally suited for recital, either individually or as a cycle. Moreover, should anybody choose to put on a staged production of the work, they are entirely free to devise the theatre.

5.2.1 Context and Idea

As all final year music students were eligible to sign up to the module, the number and combination of singers and instrumentalists was unknown before the course started in October 2008. Ultimately I was provided with 18 performers; 10 singers and 8 instrumentalists. Five of the singers could also play a second instrument. The full instrumentation is listed below, in Table 7.

Table 7: Instrumentation for Lost Words

Singers:	Instrumentalists:	Singers doubling on an instrument:
Soprano	Alto Saxophone	Flute
Soprano	Alto Saxophone	Clarinet
Soprano	Baritone Saxophone	Clarinet
Mezzo-soprano	Guitar	Bass Clarinet
Mezzo-soprano	Percussion	Violin
Alto	Percussion	
Alto	Violin	
Alto	Viola	
Baritone		_
Baritone		

The creative effort leading up to the musical composition was a collaborative process. From a series of discussions in October 2008, the students and I devised an artistic framework for the production, governing theatre, dance, music, and staging.

Influenced by Antonin Artaud's *The Theatre of Cruelty* (Artaud 1985: 68-79) and Peter Brook's *The Holy Theatre* (Brook 1972: 47-72), we arrived at a minimal approach, centred on sparse, yet distinctive worlds of theatre and sound. There was a consensus that we should focus on purely expressive rather than narrative devices. This aesthetic framework seemed ideal as the work was also intended to be performed for an audience of children, whom, it was thought, would find it difficult to follow a complex narrative.³⁹

At our first meeting, the singers, in consultation with myself, chose the sequence of poems from James Joyce's *Chamber Music* which became the 'libretto' for the work (see Appendix B). Next followed a series of workshops from which we developed a number of aesthetic concepts and parameters for the production. Most significantly, we devised an abstract character-world for each song, embodied by the singer, which became the foundation upon which I wrote the music.⁴⁰

It was decided that each character-world, and consequently every song, would be entirely unrelated to the next. As a consequence, the only overarching frameworks for the music are those provided by the idiosyncrasies of the compositional and poetic language, the instrumentation and the aesthetic framework. Furthermore, we decided that the visual as well as the aural dimensions of the production were to be capable of imparting 'meaning' on their own. Obviously the text can be appreciated without my music. Our approach was intended to lend the other dimensions of the production the same theoretical level of autonomy. In line with this, I will now move on to discuss the music alone, divorced from the production for which it was conceived.

5.2.2 Compositional Process

Like *From The Eumenides*, the use of coherent text lends each song a patent narrative dimension. In addition, it might be said that all of the poems in *Lost* Words are, more

³⁹ In order to tailor the production for an audience of children, much of the theatre was ultimately devised by the students under the guidance of Paul Harman of CTC theatre. In the end, however, the schools-performances never transpired, due to a lack of convenient dates.

⁴⁰ It is important to note that although each 'character-world' was based on one of the poems, they are not necessarily rooted in the most obvious interpretation of it. For example, the menacing character of *In the Dark Pinewood* (IV) is not immediately evident in the text. Similarly, the anguished quality of *Bid Adieu* (VI) is not something which immediately springs out of the poem.

or less explicitly, concerned with the notion of love (Spoo 1989: 495). Furthermore, it could be argued that they each approach this notion from a different perspective. Accordingly, every 'character-world', as we envisaged them, embodied a different emotional state, listed in Table 8.

Table 8: Emotional States and Instrumentation for Each Character-World of Lost Words

I	II	III	IV	V	VI
Ethereal -	Cautious -	High Spirits -	Enraptured -	Calm -	In Pain -
Distant but	Inquisitive	Emotional yet	Slightly	Loving but	Strenuous and
Clear.	and	Persuasive.	Rushed	Distant	Anguished.
	Youthful.		(Menacing).		
4 Female	Soprano,	Baritone,	Mezzo,	Alto,	Soprano,
Singers.	Percussion.	Flute.	3 Saxophones.	Guitar.	3 Strings.
VII	VIII	IX	X	XI	XII
Joyful -	Determined -	Completely	Hurt -	Angry -	Comfortable -
Enamoured	Annoyed but	Still - Quiet	Controlled but	Chaotic yet	with Accepted
and Excited.	Contained.	and Ghostly.	Reproachful.	Unwavering.	Regret.
Soprano,	Mezzo,	Alto.	2 Baritones,	5 Singers,	Alto,
Glockenspiel,	Bass Clarinet.		3 Strings.	3 Saxophones,	3 Saxophones.
2 Clarinets.				Bass Clarinet,	
	-			2 Percussion,	
				3 Strings.	

In contrast with *From the Eumenides* or *Symphony No. 104*, there are very few extramusical processes at work in *Lost Words*. In order to musically frame the 'states' in Table 8, I constructed each song entirely on the basis of the musical associations each poem gave me. As a result, the songs are, in essence, intuitively framed iterations. All of the music was conceived of instinctively and no restrictions were placed on the musical material other than those imposed by the text and the skill of the performers. In other words, the songs are anchored entirely in what Lerdahl would describe as my *listening grammar* (Lerdahl 1992: 99).

It might not immediately be clear what I mean when I say that the music was conceived of instinctively. Essentially, what I am saying is that the musical material was initially sketched out in my mind before I put pen to paper. If I were to describe this abstract process I would say that it takes place in three stages. However, as I often move backwards and forward between these stages as I compose, this explanation can only denote the hierarchy, not the path, of the process.

To begin, I explore the associations each poem gives me. In *Lost Words* this process was originally collaborative and resulted in the series of different 'character-worlds' and emotional 'states', listed in Table 8. The second stage consists of assigning the poem a specific musical 'structure', sketching out an abstract contour (see page 25) for the melody, and deciding whether the piece should be throughcomposed or divided into sections.⁴¹

The third stage of the compositional process consists of combining the character with the structure. I sit at the piano and write out the music based on the contour I have envisaged. This is where the actual *listening grammar* (intuition), takes over from the imagined *listening grammar* (instinct). If I am not satisfied with the music I formulate on paper, I change it to fit my aesthetic demands.

5.2.3 Structure and Form

The songs of *Lost Words* are all relatively short and none of them are particularly complex in structure. As they were intuitively conceived and contain coherent texts, it might be natural to presume that they convey *intuitive forms*. In most cases such a presumption would be correct, as we can see from Table 9.

Table 9: Basic Structure and Suggested Form-Type for Each Movement of Lost Words

A = Intuitive B					
I	II	III	IV	V	VI
Sectional shifts between homophony and polyphony.	Through- composed with a return at the end.	Three sections irregularly separated by solo passages.	Four clearly separated sections.	Two sections separated by an explicit solo passage.	Through- composed in five different parts.
A (B)	A	A	B (A)	A (B)	A
VII	VIII	IX	Х	XI	XII
VII Through- composed with consistent dyads in the wind.	VIII Six sections irregularly separated by solo passages.	IX Six different phrases separated by silence.	X Two sections and deferred canonical text.	XI 12 text-phrases over gradually transposed stasis.	XII Through- composed - instrumental conclusion.

⁴¹ As the composition is still on an abstract level, the term structure is, in this instance, near to the notion of a musical gist, which I explored in chapter 3 (page 24). Just as the *idea* might be seen as a *proto-form* (see page 4), this gist might be described as a *proto-structure*.

_

Although it is irregular, the shift between the horizontal plane and the harmonic cluster of the opening chorus lends it a semblance of explicit structure. In comparison, *From Dewy Dreams* (II) is throughcomposed. However, the return to the opening phrase at the end of the song might be argued to bring the movement to a structurally coherent conclusion. In any case, the sound-world of the percussion is relatively consistent throughout.

The solo flute in bars 38-40 of *Gentle Lady* (III) contains the same rhythms as the opening passage. However, reiteration is not a prevailing feature of the movement. It is merely intended to give the piece a sense of return, similar to that of the first two songs. Furthermore, the consistently bird-like flute part is intended to complement the austerity of the baritone throughout. The constant use of grace notes and trills lend the piece an additional sense of cohesion. Nevertheless, like the first two songs, a clear *intuitive form* is proposed.

Although they were constructed differently, it was my intention that each of the first three movements would return to previously stated material. Similar reiterations can be found in movements IV, V, and VIII. The idea was that this would lend each song a sense of cohesion. This rationale can be supported by the notion that such a return gives each song a natural musical envelope. It may also be said to relate to the Gestalt principle of *symmetry and closure* (see page 25).

Because the instrumental characters are consistent throughout, it could be argued that movements VI, VII, IX, X and XI have a similar sense of cohesion to the songs mentioned above. Robert Erickson states that "things that begin and end together have a good chance of being perceived as belonging together" (Erickson 1982: 533). If we follow Gestalt theory, the structure of these songs might be related to the grouping-principle of *similarity*. Overall however, the constancy of the instinctive melodic writing ensures that the most dominant grouping-principle at work in *Lost Words* is that of *good continuation*, which leads to the experience of *intuitive forms*. In line with my explorations in Chapter 2, this might be argued to substantiate the formal models in Table 9.

Unlike the other songs, *I Hear an Army Charging* (XI) was intended to affect the experience of the cycle as a whole. The large ensemble and lack of melody stands in stark contrast to the preceding music. As a result, it breaks up the previously imposed musical pattern. My intention was that this would amplify the relative tranquillity of the final movement, *O that so sweet Imprisonment*.

The vocal part of the final song is very different in character to those of movements II-X, where consecutive pitches are a rarity. In fact, the movement might be seen to return to the homophonic phrases of the opening chorus. On a macro-level, this could be argued to place the work within the gestalt category of *symmetry and closure* (see page 25). However, as in *From The Eumenides*, the vocal part of final movement marks a departure from a previously established pattern. On an abstract level, the repeated pitches could indicate a return, but they can also be perceived as prolonged musical suspensions. Furthermore, the movement opens with a melodic saxophone solo and culminates in an unremitting harmonic flux. The 'tension' is only released with the very last chord of the work.

5.2.4 Concluding Remarks

The songs of *Lost Words* were shaped by the students they were composed for. They were written with specific voices in mind, according to collectively conceived character-worlds. Each song was intuitively composed but they all nonetheless contain elements of regular structure. Moreover, the musical material was instinctively constructed, from an aesthetic approach that could be considered analogous to the notion of "tension and release" (see page 32). The form of each song is different; however the whole work might be perceived as a coherent unit, bound together by the idiosyncrasies of the compositional and poetic language.

6.1 String Quartet No. 2

My second string quartet was written in the first half of 2008, for a workshop with the Momenta Quartet. Like *Symphony No. 104*, it is a set of relatively short movements. In contrast with the orchestral piece however, these movements are not restricted by an underlying structural framework. With the exception of the final movement, each one was conceived of independently and intuitively composed; although there are a few common threads that run through the piece, these are a result of free association, rather than structural concerns.

6.1.1 Idea

First and foremost, my intention was to compose a series of highly 'expressive' movements, the sequence of which would maximize their individual effect. As models, I looked at George Crumb's *Black Angels* (1970) and Kurtág's *12 Microludes* (1995a) and *Officium Breve* (1995b). Like these pieces, it was not my intention to write a piece where each movement stood in extreme contrast to its companions. In fact, listening to such a piece might soon become a very polarised and predictable experience. However, some *moments* flow 'logically' into others (such as I-II), while elsewhere (such as the transition between XI and XII) the contrast is much more explicit. The idea and basic structure of each movement is given in Table 10.

6.1.2 Structure and Process

In Table 10, we can see that each movement of *String Quartet No. 2* is based on a single structural process. Movements I, III, V, VI and XI were designed to present a specific musical idea in a straightforward way, while IV, VIII, IX and X exhibit four

⁴² Fred Lerdahl states that "constant change will not give rise to salient distinctive transitions" (Lerdahl 1992: 104-105).

⁴³ Similar transitions can be found in Crumb's and Kurtág's quartets. The transition between my first and second movement is comparable to that between movements I and II of *Officium Breve*, while the transition between my eleventh and twelfth movements is akin to that between VI and VII of *Black Angels*.

different types of musical development or expansion: an increasingly complex linear development (IV), a development through three separate characters (VIII), a straightforward acceleration of attack (IX) and a vertical, or harmonic, expansion (X). Movements II and VII each contain two different characters in juxtaposition; i.e. without a logical development linking the two.⁴⁴

Table 10: Idea and Basic Structure of Each Movement in String Quartet No. 2

I	II	III	IV	V	VI
1 Idea	2 Ideas	1 Idea	1 Idea	1 Idea	1 Idea
Regular	Contrast	Contrast with-	Horizontal	Minimal	Pizzicatos
harmonic	between	in a ternary	'thickening' of	gestures over	with different
'statement'.	related ideas.	structure.	a single line.	'fine' texture.	attacks.
VII	VIII	IX	X	ΧI	XII
2 Ideas	3 Ideas	1 Idea	1 Idea	1 (or 2) Ideas	1 (or x) ideas
Contrast	Development	Acceleration	Gradual	Loud and fast	Solo – many
between two	from first to	and a slight	thickening of	rhythmic	ideas over
ideas.	third idea.	detuning.	harmony.	'statement.'	harmonies.

The final movement of *String Quartet No. 2* might be seen as a culmination of the macro-structure of the work. The solo violin moves through the textures and characters of the previous movements while the 'accompanying' parts present what are essentially, though probably not detectably, two protracted chordal progressions. Nevertheless, if we disregard the microtonal distortions, the transitions between the harmonies are more or less teleological; an authentic cadence in sections 1 to 4 and a sequence of variously inverted jazz-chords in 5 to 8 (see Figure 3). The final harmony is a variant of the opening chord; however, the solo violin drags the piece back into the microtonal realm.

Figure 3: Reduction of Accompanying Harmonies in Movement XII of String Quartet No. 2



The authentic cadence is perhaps the most apparent musical 'motif' of the piece and is manifested both melodically and harmonically. Yet it is not a strict structural paradigm; rather, it was a musical idea that occupied me at the time of composition.

⁴⁴ A more extreme example of this is found between the two sections of the 4th movement of Kurtág's *Officium Breve* (1995).

Consequently, I chose to employ it as a common thread, running through many of the movements. Its basic melodic outline, clearly defined in bars 3-4 of the final movement (see Example 1), is alluded to in movements II (Violin I, 6-7), IV (4-6), VII (3), and X (5-6). The harmonic progression appears elsewhere, most clearly at the end of II and VIII. Often, however it is only partially discernible; presented as a single interval or a fragmented cadence.

Figure 4: Authentic Cadence Motif in Violin 1, Movement XII (bb. 3-4) of String Quartet No. 2



6.1.3 Intuition and Form

As I have already stated, the individual movements of *String Quartet No.* 2 were all intuitively composed, and as in *Symphony No. 104*, the secondary developments do not take precedence over the original *ideas* of each movement. Consequently, I would argue that each movement has the potential to elicit a strong formal experience. Still, some might feel that the great brevity of the first 11 movements needs to be balanced by a more protracted medium of expression. Such a 'resolution' is reached in the final movement.

As movement XII is approximately four minutes long, I suspect the listener will not be able to recall the precise shape of its surface material. Nevertheless, I expect that the movement will be recalled for its architectural 'gist'; that of a violin solo on top of a protracted harmonic texture. While the violin solo is relatively comprehensive and varied, the melodic I-IV-V-I gesture (see Figure 4), binds it together. My intention was that this 'motif' would help to fuse the movement into a coherent unit. Conversely, one might say that the structure of the 'accompanying' harmony will not be recalled because it is augmented beyond the listener's capacity to recognize the sequential progression. As Erickson states, "if the sound lasts very long... the object will lose its holistic identity" (Erickson 1982: 533). Returning to the notion of musical streams, introduced on page 26, the solo is too complicated to be recollected clearly, while the progressions are too protracted. Therefore, I imagine that if it were to be

classified, movement XII would, like many of the others, fit the criteria for *intuitive* form (see Table 11).

Table 11: Suggested Form-Type for Each Movement of String Quartet No. 2

A = Int	A = Intuitive B = Explicit C = Implied: potential secondary experience in brackets										
I	I II III IV V VI VII VIII IX X XI XII										
B (A)	B (A)	В	B (A)	B (A)	A	A (B)	A	В	A	B (A)	A

As in *Symphony No.* 104, a number of the formal experiences in *String Quartet No.* 2 fall between categories. However, I do not consider this to be of great concern. While they may be difficult to classify, this does not mean that the formal experiences are unclear. *Form* is, after all, an entirely abstract concept, and consequently it is difficult to define. As I am mindful of each movement's overall structure, this often results in intuitively composed *explicit forms*. The fact that the piece is intuitively written, reveals itself on a more immediate experience of the structural fabric.

6.1.4 Concluding Remarks

Each movement of *String Quartet No.* 2 was composed 'instinctively', with one structural purpose in mind. Nonetheless, there are a few common threads that bind the movements together. The sparse use of microtones and a certain motivic homogeny, might be said to point towards the characteristics of an individual compositional 'style' that is relatively consistent throughout the piece.

6.2 String Quartet No. 3

While my second string quartet is a set of miniatures, *String Quartet No. 3* is a single throughcomposed piece, consisting of 5 interwoven sections. The first four minutes (bars 1-49), were written for a workshop with the Kreutzer Quartet in the autumn of 2008. The piece was completed in September 2009.

6.2.1 Idea

In further contrast with *String Quartet No. 2*, which I find to be relatively consistent in style, my third quartet places a number of disparate stylistic worlds in contrast with one another. An outline of these can be seen in Table 12. My *idea* for the piece was that each section would develop a single musical character, the effect of which would be emphasised by its context. In order to maximise this effect, I decided to employ what some might consider to be radically different worlds of sound, from the relatively simple to the more complex.

Table 12: Character, Style and Process of String Quartet No.3

Section	Ι	II	III	IV	V
Bars	1 – 19	20 - 34	35 – 63	64 – 92	93 – 140
Character	Slow-moving harmonies with no base.	nies complicated gestu		Solistic and harmonic indulgence.	Harmonies with no base and fast pizzicato.
Style	'Serial Stasis'	'Complex'	'Minimal'	'Expressive'	'Semi-Complex'
Process	Three expositions of a single 12-tone row.	Increasingly complicated musical counterpoint.	A repeated chord with gestural development.	A violin solo over a gradual harmonic expansion.	Expansion and the reduction of pizz. and chordal texture.

According to my theory of *form*, the complexity of a musical material defines the temporal boundaries for formal perception (see page 33). The implication of this is that complex structures must be confined to a limited scope in order for formal cognition to take place. In *String Quartet No. 3*, however, I consciously wanted to extend each section beyond what I considered to be the threshold for clear formal cognition. This does not mean that there is no formal perception at all. Rather, it is intended to be less explicit.

My aim for *String Quartet No. 3* was that the listener's capacity to process the 'gist' of the music would, at some point in each section, be overwhelmed. However, I wanted this to occur without allowing his or her perception to shift to a new level of structural cognition. ⁴⁵ One might say that my intention was to reduce *experiential time*

-

⁴⁵ Speaking of Boulez' *Le Marteau Sans Maître*, Fred Lerdahl states: "there is little repetition in *Le Marteau*. The lack of redundancy perhaps overwhelms the listener's processing capacities" (Lerdahl 1992: 97). However, if such a section is extended for long enough, "vast numbers of non-redundant

and therefore impair our faculty for musical expectation, in order to emphasize the contrast between each section, and consequently the element of surprise. This is further amplified by the lack of space, or silence, between each section.

6.2.2 Structure and Process

Although they are fundamentally different, the execution of my third quartet did have a number of things in common with the composition of *String Quartet No. 2*. As with my second quartet, I originally imagined a distinctly polarised structure. Soon, however, I found that this would not, on its own, provide me with an adequate musical framework. In fact, early on, I decided that my piece would hinge on one main structural crux; the transition between sections II and III.

Section I has a fairly straightforward structure. It consists of two complete, if somewhat augmented, expositions of the same 12-tone row (see Figure 5), followed by an incomplete transposition. The final version is curtailed as the piece moves from the vertical plane of section I, to the horizontal counterpoint of II.



Figure 5: 12-Tone Row in Sections I and II of String Quartet No.3

While the rhythms of II were intuitively devised, the pitches are, in the early stages, derived from the tone-row of section I (see Figure 5). However, this structure gradually disintegrates as the piece moves on, through an intuitively devised fragmentation of the material. At the same time, the complicatedness of the passage

events fly by, but the effect is of a smooth sheen of pretty sounds. The listener's processing capacities are, in short, not overwhelmed" (Lerdahl 1992: 98).

gradually increases.⁴⁶ The section culminates with the abrupt transition into III (it even runs slightly over). One might further argue that, upon recollection, the character of section II is exaggerated by the succeeding music. Similarly, it could be said that the sparseness of section III is exaggerated by our recollection of the music that precedes it.

Fundamentally, section III is a statement of what I consider to be beautiful harmony. Structurally, however, it was intended to gradually subvert the musical expectation of the listener. While the chords persist (at least in principle) throughout, the 'motivic' material between each gesture, which is intended to indicate further development, is continuously called to a halt and ultimately desists.

To counterbalance the 'failed' expansion of III, section IV might be described as an unalleviated development. While there is an indomitable sense of harmonic expansion, the 'solo' material never firmly settles; there are no definite rests or resolved 'cadential' gestures. In addition, while the preceding section is characterized by a reiterative structure, IV contains next to no repetition. One might say that while III is rooted in an explicit structure but fails to develop, the structure of section IV is specifically that of a foundationless development.

While section IV can be seen as a reversal of III, section V was intended to function as a reversed counterweight for II and I. Following the initial chord, the pizzicato material is expanded in conjunction with a tremolo texture. As in section III, however, this is not allowed to reach its full potential. After the (premature) climax in bars 104-105 it abates, to leave us with a gradually disintegrating texture. The limitations of the pizzicato technique restrict the section from achieving the same momentum as was reached at the end of section II. Because the ultimate climax of the piecehas already transpired, a similar gesture would in any case be ineffective, as it has already been assimilated into the framework of musical expectation. In the end, the piece returns, at least in principle, to the sentiment of the crux of the piece.

mean that the music will not be perceived as complex.

⁴⁶ I use the word complicatedness rather than complexity, following Fred Lerdahl's differentiation between the two terms (see page 26). 'Complicatedness' denotes a high *ratio of change* while 'complexity' implies a "richness of structure" (Lerdahl 1992: 118). As my piece is intuitively composed, there are no consciously conceived in-depth structures in place. However, this does not

6.2.3 Intuition and Form

The final structure of *String Quartet No.* 3 was arrived at as a result of the compositional process. Originally, the transitions (with the obvious exception of II – III) were intended to be more distinct, and each process more explicit. However, I decided to sacrifice this clarity for a less predictable succession of events. While each section is based on its own *idea*; in effect, sections I and II prepare for section III, while IV and V attempt to counterbalance the preceding music. However, this does not mean that each section is formally incoherent. In fact, I would suggest that there is a clear sense of sectional arrangement in the piece. The difference in musical characters and styles will, at least, be evident.

Whereas the listener is unlikely to detect the serial organisation in the piece, it could be argued to have an impact upon the way he or she experiences the music. I have previously referred to Adorno's statement that, with serialism music "becomes the result of a process that determines the music without revealing itself" (Mertens 1983: 97) (see page 14). While this certainly applies to the first section, it might also to an extent ring true for the music that follows. As the piece is predominantly intuitively composed, however, only the result of this abstract process will be available to the listener. In fact, as section II is constructed from fragments of a 12-tone row, the intervallic configuration might lead the listener to experience an *implied form*. Conversely, the comparative lack of common threads in the pizzicato gestures of section V might lead to the experience of an *intuitive form*. I have assigned each of the sections, as well as the macro-structure of the piece, a proposed form-type (see Table 13).

Table 13: Suggested Form-Type for Each Section of String Quartet No.3

A = Intuitive B = Explicit C = Implied: potential secondary experience in brackets								
Section I II III IV V I-V								
Form-type	A (C)	C	B (A)	A	A	B (A)		

As I have previously argued, each section of the piece, and by extension the overall experience, lacks explicit clarity. I would argue that as a result of this, and in

furtherance of their structural process, each section might be described as a 'failure' (see Table 14).

Table 14: The 'Failure' of Each Section in String Quartet No.3

Section	I	II	III	IV	V
	Three	Increasingly	A repeated	Violin solo	Expansion and
Process	expositions of a	complicated	chord and	over a gradual	reduction of
	single 12-tone	musical	gestural	harmonic	pizz. and
	row.	counterpoint.	development.	expansion.	chordal
					texture.
	The expositions	The expansion	The	The solo has no	The material
'Failure'	are not	can go no	development is	fundament or	cannot reach a
	completed.	further.	stunted.	framework.	climax.

Sections I and II pave the way for III and consequently, in addition to the lack of space in which to digest the experience, their forms gradually become more obscured. IV and V ultimately 'fail' to achieve their structural purpose as they cannot live up to the foregoing material, embodied by the transition between II and III. Nonetheless I believe that they are required in order to balance the material preceding it. In a sense, the intuitively conceived *implied* form requires a counterweight in order to achieve a sense of *tectonic balance* on the macro-scale of the work.

6.2.4 Concluding Remarks

String Quartet No. 3 employs simple as well as quite complicated surface material in the guise of different musical 'styles'. The underlying principle is that the material is brought to its fullest potential when it is contrasted, either gradually or in juxtaposition, with a different (some would say dialectically competing) musical character. The piece exploits the way in which this, combined with the limitations of working memory, can affect the musical experience. Although each section 'fails' to achieve its proposed 'purpose' (or process), the limited scale of each section still allows for formal cognition.

7.1 12 Miniatures for Guitar

12 Miniatures was written after I attended Solmund Nystabakk's guitar recital at the Ultima festival in Oslo, on the 18th September 2009. The piece is a response to the program that was presented, which included Sciarrino's L'Addio a Tranchis II (arranged by Maurizio Pisati) and Berio's Sequenza XI. Although I very much enjoyed the recital, I felt that the pieces presented lacked a clear formal dimension.

7.1.1 Idea

The world of solo and chamber music is invariably one of sparse musical textures. In my opinion, such pieces should be composed with the same textural focus as they are heard. Accordingly, my 12 Miniatures for guitar (like all of my chamber music) were written specifically with the idiosyncratic nature of the instrument in mind.

My main objective for the piece was to explore the contrasting musical worlds which the guitar can produce. Accordingly, the movements span from fragile and brittle soundscapes, to unpolished, even 'grating' musical statements; a few (I, VI and XI) even combine the two. As in my previous pieces, I intended to contrast these disparate musical characters with one another.

Like *String Quartet No.* 2, my *12 Miniatures* were individually composed and the movements were intended to present short *iterations* of a single musical *idea*. My intention was to draw each musical character to a close before the material had been run to exhaustion. However, it is important to note that the musical development would be saved from suffocation so to speak, rather than being precipitately strangled.

7.1.2 Structure

In a sense, 12 Miniatures might be seen as a result of my investigations into form and the miniature. Indeed two of my movements are based on pieces which I have explored in this commentary.

The melody and harmonic language of movement IX was taken directly from the fifth of Kurtág's 12 Microludes for String Quartet (Kurtág 1995a) (see Appendix C). In fact, my movement is to an extent an arrangement of Kurtág's piece, in homage to the composer. However, my own chords are thinner and more isolated than Kurtág's. Furthermore, there are a number of departures from Kurtág's microlude; the harmony is different in places and the melody is often displaced by one or more octaves.

For movement VI of my miniatures, I have borrowed the 12-tone row from the sixth of Boulez' 12 Notations (see Figure 6). In contrast with Boulez' piece however, mine is strictly serially organised. The first 48 notes of the movement present an exposition of the row followed by its retrograde inversion, inversion and retrograde. As the second part of Boulez' canon is inverted half way through, I decided to match this by making my own movement palindromic. I did, however, make two small deviations from this structure. The first dyad of the retrograde (bar 8), was swapped around in order to make the pivot less obvious. Furthermore, the final 2-note cell (bar 14) was not reversed as I found the original configuration to be a more suitable ending.⁴⁷ A direct result of its implied musical structure is that the movement has a clear sense of symmetry and tectonic balance.

Figure 6: [A] 12-Tone Row in Boulez' douze notations VI (bar 1) [B] 12-Tone Row in 12 Miniatures IV (bars 1-2)



While movement IV contains an obvious hidden structure, most of the other miniatures were explicitly or intuitively organised. However, as I intended the piece to be a response to my exploration of form, I wanted all three formal categories to be represented. From my investigations in Chapter 1 (see Table 2, page 12), and of Symphony No. 104 (see Table 4, page 38), it became clear that the nature of the

⁴⁷ Similarly, a small number of small deviations from an otherwise strict palindromic structure can be found in Ferneyhough's third *Epigram* which I explored on page 6.

structural process is frequently matched by the resulting form-type. Ultimately, I employed implied, as well as explicit and intuitive structural processes (see Table 15).

Table 15: Basic Structure and Structural Process for Each Movement of 12 Miniatures

I	II	III	IV	\mathbf{V}	VI
'Melodies' of	Repeated open	An explicit	Palindromic	A regular	Regular
harmonics	low E-string –	percussive	statement of	percussive	structure of
separated by	filled with	pattern –	all 4 variants	pattern and 2	harmonics
silences and	sustained	3 'chords' at	of a single 12-	brushing	from 'slapped'
sharp attacks.	dyads/triads.	centre.	tone row.	gestures.	notes.
Intuitive	Totalitan	Explicit	Complex –	Explicit	Explicit
(yet explicit)	Intuitive		Implied		(yet intuitive)
VII	VIII	IX	X	XI	XII
VII Two-part	VIII Gradual	IX Melodic and	X Regular	XI Six-part	XII Harmonics
			, ,		7
Two-part	Gradual	Melodic and	Regular	Six-part	Harmonics
Two-part structure of	Gradual scraping of	Melodic and harmonic	Regular structure of	Six-part structure of	Harmonics and a chordal
Two-part structure of tapped notes	Gradual scraping of low E-string	Melodic and harmonic statement	Regular structure of similarly	Six-part structure of loud	Harmonics and a chordal gesture
Two-part structure of tapped notes on the four	Gradual scraping of low E-string from neck to	Melodic and harmonic statement taken from	Regular structure of similarly organised	Six-part structure of loud percussive	Harmonics and a chordal gesture separated by

Like my other pieces, some of the structures (and consequently forms) in 12 *Miniatures* are much clearer than others. Significantly, however, this is the result of a series of conscious decisions.

For me, the most important experiential dimension of the piece is the *form* of each miniature. Moreover, I choose to combine the aspiration for formal clarity with the notion that "an essential ingredient in having a genuine experience... is the element of surprise" (Benson 2003: 118). It follows that if each movement were similarly structured, the element of surprise would be absent. My own approach often resulted in a series of compromises. Among other things, I was willing to sacrifice the clarity of the macro-form of the piece for the benefit of each individual movement.

Like my second string quartet, 12 Miniatures for Guitar contains a variety of different musical styles and modes of organisation which were placed in a sequence that was intended to emphasise their individual effect. However, not each miniature can be a complete departure from the preceding one, as this would result in a very predictable musical experience (see page 48). Moreover, if each structure were perfectly clear, this would also result in a distinctly polarised composition. Accordingly, if I am to

allow for both surprise and formal clarity, it follows that, on occasion, one must give way to the other. One result of this approach is that a number of the movements combine explicit and intuitive modes of organisation.

The musical material for movements I and XII was intuitively conceived but, to an extent, explicitly structured. The loud percussive open E-string was intended to impart an element of surprise to the movements. However, if it were only employed once, this would result in an unbalanced form. Rather, it is embedded in the structure, which gives the movements a sense of unity. In contrast, the structures of movements VI, X and XI are regular; yet the gestures themselves were intuitively composed.

Nevertheless, as a rule, I would say that if the compositional *idea* is of an *intuitive structure*, this will translate into an *intuitive formal* experience, as I have indicated in Table 16.

Table 16: Structural Process and Suggested Form-Type for Each Movement of 12 Miniatures

A = Intuitive I	A = Intuitive B = Explicit C = Implied					
I	II	III	IV	V	VI	
Intuitive (yet explicit)	Intuitive	Explicit	Complex – Implied	Explicit	Explicit (yet intuitive)	
A	A	В	С	В	В	
VII	VIII	IX	X	XI	XII	
Implied (yet explicit)	Explicit	Implied (yet intuitive)	Explicit (yet intuitive)	Explicit (yet intuitive)	Intuitive (yet explicit)	
C/B	В	A	В	В	A	

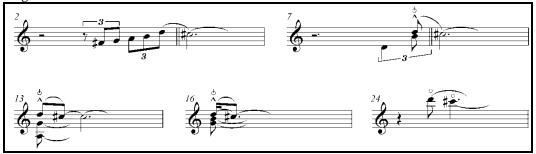
7.1.3 Form

Like most of my music, I wanted the 12 Miniatures for Guitar to express formal clarity. While I do think that this is catered for in the piece, it could be argued that such clarity is perceived at different levels of a structural hierarchy. While movement IX can be experienced as an intuitive sequence of intervals (good continuation), movements VI and X might be recognised as series of gestures with a regular rhythm (similarity) (see page 25). Furthermore, movement XI might be perceived as an explicit form due to its consistency in character and the rudiments of extra-musical organisation.

The intervallic structure of my seventh miniature is too complicated to be accessible to the listener. Rather, the movement's formal clarity relies on textural consistency within a limited scope (*tectonic balance*). This corresponds with Fred Lerdahl's statement on *Le Marteau sans Maître*, that "vast numbers of non-redundant events fly by, but the effect is of a smooth sheen of pretty sounds. The listener's processing capacities, in short, are not overwhelmed" (Lerdahl 1992: 98). The repetition and gradual deterioration in the second half of the movement (bars 11-20), might lead to the perception of a two-part structure. The first half has an *implied*, while the second has an *explicit*, *form*.

As I have already mentioned, the final movement of 12 Miniatures was to an extent explicitly organised. Firstly, the intervallic gesture which links bars 2-3 is repeated at relatively regular intervals throughout (see Figure 7). Moreover the music is interspersed with loud percussive attacks on the low E-string and for some this might be perceived as a return to the opening movement. However, despite of this structural unity, the piece was entirely instinctively conceived of.

Figure 7: Recurrent Harmonic Gesture in Movement XII of 12 Miniatures



In Chapter 2 I stated that it is a natural process for human beings to seek structure (see page 18). If this is the case, it might not be unreasonable to assume that our intuitive faculties must equally seek to create it. In a musical world where the language of tonality has been transcended, one may find that this structure must manifest itself on a more explicit level. However, from my investigations in Chapters 1 and 2, it is clear that one cannot rely upon this alone to impart *formal* clarity to large-scale formats.

7.1.4 Concluding Remarks

12 Miniatures for Guitar can be seen as a result of my study of the miniature and form. It was intended to contain all three formal categories, yet each movement was constructed independently and according to a different process. The piece is tailored specifically to the instrumental temperament of the guitar.

7.2 Non-Stable Equilibrium

The Transition from potential, only virtual, sound patterns to actual sound gestures and music is caused by changes in the agent's sensomotor and mental tonus through exchange of energy between him and his environment, from a non-stable equilibrium (rest) to active states of fluctuation. A non-stable equilibrium is a state full of creative possibilities. Silence, therefore, to be broken and transformed into sound gestures or music, is a kind of analogue to the quantic vacuum that is postulated in some modern cosmological models for the creation of the universe... it is not passive, but conceals its power in order, at a certain moment, to release all thinkable combinations of acoustic and kinetic energy into a world of music and dance. (Wallin 1991, xix)

Non-Stable Equilibrium for piano and violin was written for a workshop with Darragh Morgan and Mary Dullea in November 2009. It was inspired by the quotation from Nils Lennart Wallin, above.

7.2.1 Idea

If 12 Miniatures was a result of my investigations into the miniature and form, Non-Stable Equilibrium could be seen a response to my study of experiential time and working memory. My primary idea for the piece was to employ complicated musical material in a single throughcomposed movement, without compromising formal clarity. In Chapter 3, I stated that this could be done in two ways; by restricting oneself to a small compass of material, and by interleaving silences into the music (see page 31). As the material I wished to make use of was particularly complicated, I elected to adhere to both of these approaches.

Having come across Wallin's *Biomusicology*, I thought the notion of silence as a "non-stable equilibrium" had the potential to provide an excellent musical framework (Wallin 1991, xix). Accordingly, I chose to structure my piece as a series of short musical gestures framed by silence. In a sense, each gesture might be seen as a brief musical *iteration*. However, while this might seem analogous to my miniature works, the principle is intrinsically different, because the iterations themselves are secondary to the macro-development of the piece.

Although very different, the macro-structure of the work does resemble my miniature formats in one important way. Just as the sequence is intended to increase the combined experience of the miniatures, the silences are intended to emphasize each event (and vice versa) in *Non-Stable Equilibrium*. The underlying principle for this rationale is that when our *working memory* is 'stretched', *experiential time* will decrease (see page 22). On a large scale, this will weaken the potential for formal cognition. However, on a small scale, it will result in there being less scope to anticipate the future; consequently, the potential for surprise is increased. If I were to create a piece that was based on a limited amount of material, this notion would be important in order for the music to sustain interest throughout.

7.2.2 Structure

Just as an awareness of *form* must derive directly from one's *listening grammar*, so must the manipulation of musical expectation. However, while it might be an "essential ingredient in having a genuine experience" (Benson 2003: 118), I did not want the notion of surprise to undermine the principal intent of my piece; that of presenting complicated musical material in a *formally* appreciable framework. Rather, I wanted my *idea* to be enhanced by it. Consequently, while there were indubitably things that I could have done to make the sequence of events more surprising, I chose to follow a middle ground, where the (potential) subversion of expectation was employed to sustain musical interest, rather than produce events of genuine astonishment.

In order to give the piece an overall sense of cohesion I decided that every musical gesture would be extracted from three different materials (see Table 17). This is important, as an impression of cohesion is essential both for achieving *formal* clarity and if one is to challenge musical expectation. By employing three such different, yet related, musical characters, the piece could be texturally varied while at the same time conveying a sense of unity.

Table 17: Three Musical Materials from Non-Stable Equilibrium

Material	A	В	С	
Full Statement	1 Bar 'Cell' (1) 5 Bars (88-92)	4 Bars (82-85)	4 Bars (53-56)	
Character	Playful yet Focused	Furious and Intense	Hectic	
Structure	Relatively simple cell with an extended tail.	Complicated phrase (in rhythmical unison)	Complicated phrase (in octave displaced unison)	
Typical Tempo	J =90	- =60	J =90	
Typical Dynamic	pp → ff	fff	pp	

The opening cell in Figure 8 provides the musical 'foundation' for the piece. The cell is gradually extended from bar 8 onwards; however, frequent returns are made to the original undeveloped gesture. This makes the unfolding of events less predictable. The musical uniformity is further weakened by the fact that the each recurrent gesture is given a different dynamic to the one preceding it. Moreover, the original cell is subjected to fluctuations in tempo and two different phrasings in the violin part.

Figure 8: Opening Cell of Non-Stable Equilibrium (bars 1-2)

-90 Playful yet Focused

Violin

Piano

Piano

Piano

TACET 8''

TACET 8''

TACET 8''

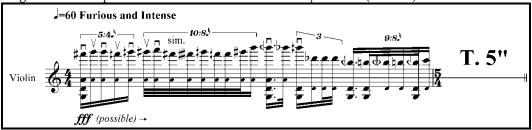
TACET 8''

TACET 8''

Piano

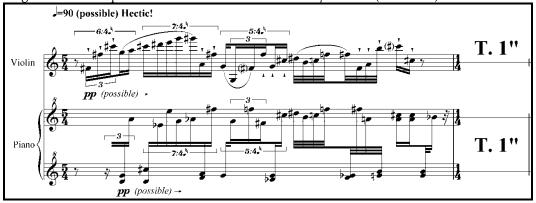
In contrast to Material A, Material B is initially introduced by one instrument at a time, something which greatly diminishes its textural complexity (see Figure 9). Furthermore, each solo piano gesture is repeated; as it is less often visited than the opening material, I felt that this was required in order to lend the material a sense of cohesion.

Figure 9: First Exposition of Material B in Non-Stable Equilibrium (bars 5-6)



Although the tempo is perhaps even more frantic, the quiet dynamic of Material C places it in stark contrast to the other music, particularly the fortisissimo gestures of Material B. Moreover, the piano part is confined to a tenth which gives the music a very thin texture in comparison with the rest of the piece (see Figure 10).

Figure 10: First Exposition of Material C in Non-Stable Equilibrium (bars 14-15)



In order to maintain a forward momentum, each musical gesture, as well as the silences which separate them, was organised according to what I perceived to be an interesting sequence of events. At the beginning of the piece, our *working memory* is allowed to keep up with the structure. However, as this goes against the previously enforced structure, the *attacca* transition between the gestures in bar 8 and 9 might provide an element of surprise.

From bar 21 onwards the silences become shorter, which means that the listener has less scope to cognize the musical architecture. However, the 14 second silence at bar 41 turns this development on its head. Again, this might be perceived as a surprising event. Furthermore, the full statement of Material C (53-56) is followed by a long silence, while the statement of B (83-86) runs directly into the original cell of A. My aim was that such irregularities would allow the musical material to be seen in a new light throughout.

Due to their duration and complicatedness, the complete statements of Materials A and B would not normally allow for the cognition of clear *forms*. However, by the time they are presented in their entirety, the listener will already be acquainted with their musical substance. In line with my analysis of Tan et al.'s study in Chapter 2 (see page 19), it could be argued that increased exposure will augment our ability to recollect the characteristics of a segment of music (Tan et al. 2006). Accordingly, one might argue that the *formal* experience of the complete statements will be enhanced by the preceding music.

7.2.3 Form

While the succession of events in *Non-Stable Equilibrium* often follows musical expectations, there are instances where the sequence of events might elicit surprise. In addition to the examples given in the section above, such a reaction might occur when the piano is repeated fortisissimo in bar 76, or when the sustained E-natural is first introduced in the violin at bar 48. In fact, each addition to the original cell of Material A might be perceived to add an additional element of *non-sequitur* to the musical structure.

As well as providing a sense of balance, the silences in the piece allow the musical material to be digested, to a greater or lesser extent. The changes in the original cell, the dynamic variation and the fact that each statement of the secondary characters is different, ensures that the music does not stagnate. Rather, it is in constant flux and thus avoids what might otherwise become a predictable musical experience.

I expect that each gesture of *Non-Stable Equilibrium* will be experienced as having an *implied* or *intuitive form*. Certainly, the gestures that are derived from Materials A and B are not obviously drawn to a close; rather they all end somewhat abruptly. Consequently, I imagine that they will be perceived as part of a hidden structure. On the other hand, the additions to the original cell of A might be experienced as just that, an intuitive tail attached to a self-sufficient *iteration*.

In contrast to the individual gestures, the macro-structure of the piece will indubitably fall into the category of *explicit form*. To me, this is crucial; I am of the opinion that if the composition were aimed at eliciting any other formal experience it would fail to be clear because of the limitations the material places on the scope for *formal* cognition (see page 24).

7.2.4 Concluding Remarks

Non-Stable Equilibrium can be seen a response to my study of experiential time and working memory. My intention for the piece was to employ complicated musical material in an extended structural framework. As a result the piece consists of relatively short musical gestures framed by silence. In order to make the sequence of the events interesting, I decided that it should regularly challenge listener's expectations by sidestepping or subverting the previously imposed musical structure.

In the introduction to this commentary I stated that the theoretical framework for my music, presented in Chapters 1 to 3, had been formulated over the past year. An inevitable result of this is that my most recent pieces (see Chapter 7) are more explicitly derived from it than those that I had composed, or begun composing, before this period of time. However, the theories that I explored in Chapters 1 to 3 were not new to me when I started writing the commentary. In fact I have been concerned with most of them for the duration of my period of study. Accordingly, the pieces which I explored in Chapters 4 to 6 are largely derived from similar principles. Indeed, I think one can find a number of common elements that ring true for all of the compositions.

If one looks at my portfolio as a whole, it is immediately evident that the compositions share a number of common features. With the exception of *String Quartet No. 3* and *Non-Stable Equilibrium*, they are all sets of miniatures. Moreover *String Quartet No. 3* and *Non-Stable Equilibrium* are also, in essence, based on the principals of miniature form. However, the former piece stretches the 'miniatures' and fuses them together, while the latter breaks them apart and presents them in fragments.

A further wide-ranging principle in my portfolio is that, with few exceptions, each miniature is based on a single, autonomous structural process. This is something which they have in common with the pieces that I explored in Chapter 1. Structurally, this is a direct consequence of the desire for *formal* clarity and the attitude that a musical *idea* should be presented concisely and on its own terms. Furthermore, it is a result of my awareness of the limitations of *working memory* and an engagement with the notion of *experiential time*.

As well as having clarity of *form*, I desire that each piece I compose has clarity of *expression*. To this end I attempt, as far as possible, to give each movement a sonic individuality, based on the specific expressive characteristics of the instrumentation. Furthermore, I try, where possible, to tailor each miniature to a specific group of performers, with their personal idiosyncrasies in mind.

The clarity of *expression* is further amplified by my attempt to provide each miniature with an individual stylistic identity. A further result of this is that it gives me the opportunity to place different musical characters and styles in contrast or complementation with one another. This architectural principle is crucial to my attempt to control the notions of musical expectation and surprise; two concepts which are again informed by *working memory* and *experiential time*.

Chapter 1 contained an apologia for the *miniature* format. The main reason that I myself choose to embrace this medium is that its limited scope and extraordinary focus facilitates clarity of both *form* and *expression*. Furthermore, the notions of conciseness and brevity themselves appeal to my musical aesthetic. Nevertheless, *Non-Stable Equilibrium* shows that I have recently started taking the miniature apart and fashioning even smaller musical units. Perhaps, as a result of my studies, the notions of *working memory*, *experiential time*, *expectation* and *surprise* have become even more significant than the format for which they were originally employed. Certainly, regardless of whether or not I choose to use the miniature format in the future, I am confident that I shall continue to adhere to these principles, informed as they are with the desire for musical clarity. Like each miniature I have explored in this commentary, I believe that every autonomous work of art should 'do one thing'. Each piece of music should above all be concerned with a single musical *idea*.

- Aeschylus. *The Oresteian Trilogy* (c. 470 B.C.), Trans. Vellacott, (Harmonsworth: Penguin Books, 1974).
- Adorno, Theodor. *Philosophy of Modern Music* (1948), Trans. Mitchell and Blomster, (London: Sheed & Ward, 1987).
- Arnold, Ben. Review of *douze notations* by Pierre Boulez, *Notes* 44/3 (March 1988), pp. 580-581.
- Artaud, Antonin. *The Theatre and its Double*, Trans. Corti, (London: John Calder: 1985).
- Bailey, Kathryn. "Webern, Anton", *Grove Music Online*, *Oxford Music Online*, http://www.oxfordmusiconline.com/subscriber/article/grove/music/29993 (accessed January 7, 2010)
- Benson, Bruce Ellis. *The Improvisation of Musical Dialogue, A Phenomenology of Music*, (Cambridge: CUP, 2003).
- Brindle, Reginald Smith. *The New Music, The Avant-Garde since 1945* (1975), (Oxford, OUP: 1987).
- Brook, Peter. The Empty Space (1968), (Harmondsworth: Penguin Books Ltd., 1972).
- Clifton, Thomas. *Music as Heard, A Study in Applied Phenomenology*, (New Haven, London: Yale University Press, 1983).
- Coenen, Alcedo. "Stockhausen's Paradigm: A Survey of His Theories", *Perspectives of New Music* 32/2 (Summer 1994), pp. 136-149.
- Cook, Nicholas. A Guide to Musical Analysis, (New York: George Braziller, 1987).
- Cowan, Nelson et al. "On the capacity of attention: Its estimation and its role in working memory and cognitive aptitudes", *Cognitive Psychology* 51/1 (August 2005), pp. 42-100.
- Davis, Stacey. "Implied Polyphony in the Solo String Works of J. S. Bach: A Case for the Perceptual Relevance of Structural Expression", *Music Perception* 23/5 (June 2006), pp 423-446.
- Deutsch, Diana. "Grouping Mechanisms in Music", *The Psychology of Music*, (New York: Academic Press, 1982), pp. 99-134.
- Dowling, W. Jay et al. "Memory and the Experience of Hearing Music" *Music Perception* 19/2 (December 2001), pp 249-276.

- Dibben, Nicola. "The Cognitive Reality of Hierarchic Structure in Tonal and Atonal Music", *Music Perception* 12/1 (Fall 1994), pp. 1-25.
- Edworthy, Judy. "Melodic Contour and Musical Structure", *Musical Structure and Cognition* (eds. Howell et al.), (London, Academic Press: 1985), pp. 169-188.
- Eitan, Zohar and Granot, Roni Y. "Growing Oranges on Mozart's Apple Tree: "Inner Form" and Aesthetic Judgment", *Music Perception* 25/5 (2008), pp. 397-418.
- Erickson, Robert. "New Music and Psychology", *The Psychology of Music*, (New York: Academic Press, 1982), pp. 517-535.
- Fanning, David. Review of *Memoriale* and *Douze notations* by Pierre Boulez, *Music & Letters* 69/1 (January 1988), pp. 135-136.
- Ferneyhough, Brian. Preface to *Epigrams* (1966), (London: Edition Peters, 1996), EP 7122.
- _____. Preface to *Exordium for String Quartet* (2008), (London: Peters Edition, 2008), EP 71045.
- Finnissy, Michael. "Ferneyhough's 'Sonatas", Tempo 121 (June 1977), pp. 34-36.
- Forte, Allen. "An Octatonic Essay by Webern: No. 1 of the 'Six Bagatelles for String Quartet' Op. 9", *Music Theory Spectrum* 16/2 (Autumn 1994), pp. 171-195.
- Frey, Aline et al. "Temporal Semiotic Units as Minimal Meaningful Units in Music? An Electrophysiological Approach", *Music Perception* 26/3 (February 2009), pp 247-256.
- Gernsbacher, Morton Ann. "Surface information loss in comprehension", *Cognitive Psychology* 17/3 (Summer 1985), pp. 324-363.
- Godwin, Joscelyn. Review of *Klavierstücke I, II, III, IV* by Karlheinz Stockhausen, *Notes* 24/2 (December 1967), pp. 349-352.
- Griffiths, Paul. Modern Music and After, Direction since 1945, (Oxford: OUP, 1995).
- Hasty, Christopher F. "On the Problem of Succession and Continuity in Twentieth-Century Music", *Music Theory Spectrum* 8 (Spring 1986), pp. 58-74.
- Hill, Peter: "Riding the Thermals: Howard Skempton's Piano Music", *Tempo* 148 (March 1984), pp. 8-11.
- Jakobsen, Lorna S. et al. "Time Tagging: A Key to Musicians' Superior Memory", Music Perception 20/3 (March 2003), pp 307-313.
- Joyce, James. *Chamber Music*, (London: J. Cape, 1907).
- Klammer, Armin. "Webern's 'Piano Variations', Op. 27, 3rd Movement', *die Reihe* 2 Anton Webern (1955), (Pennsylvania: Theodor Presser Co., 1959), pp. 81-92.

- Krumhansl, Carol L. "Music: A Link between Cognition and Emotion", *Current Directions in Psychological Science* 11/2 (April 2002), pp. 45-50.
- Lerdahl, Fred. "Cognitive Restraints on Compositional Systems", *Contemporary Music Review* 6/2 February 1992, pp. 97-121.
- Levitin, Daniel J. "Memory for Musical Attributes", *Music Cognition, and Computerised Sound, An Introduction to Psychoacoustics* (ed. Cook), (London: MIT Press 1999) pp. 21-36.
- Levitin, Daniel J. and Menon, Vinod. "The Neural Locus of Temporal Structure and Expectancies in Music: Evidence From Functional Neuroimaging At 3 Tesla", *Music Perception* 22/3 (Spring 2005), pp 563-575.
- Lewin, David. *Musical Form and Transformation: 4 Analytic Essays*, (New Haven, London: Yale University Press, 1993).
- McLay, Margaret: "György Kurtág's Microludes", *Tempo* 151 (December 1984), pp. 17-23.
- Mahnkopf, Claus-Steffen. "Analysis of my Kurtág cycle", *Facets of the Second Modernity* (eds. Mahnkopf et al.), Trans. Hoban, (Hofheim: Wolke Verlag, 2008), pp. 157-195.
- McAdams, Stephen et al. "Influences of Large-Scale Form on Continuous Ratings in Response to a Contemporary Piece in a Live Concert Setting", *Music Perception* 22/2 (Winter 2004), pp 297-350.
- Mertens, Wim. *American Minimal Music* (1980), Trans. Hautekiet, (New York: Alexander Broude Inc., 1983).
- Metzger, Heinz-Klaus. "Webern and Schönberg", *die Reihe* 2 Anton Webern (1955), (eds. Eimert, Stockhausen), (Pennsylvania: Theodor Presser Co., 1959), pp. 42-45.
- Meyer, Leonard B. "Towards a Theory of Style" (1979), *The Concept of Style* (ed. Lang), (Ithaca, NY: Cornell University Press, 1987) pp. 3-44.
- Nyman, Michael. *Experimental Music, Cage and Beyond* (1974), (Cambridge: CUP, 1999).
- Orr, Mark G. and Ohlsson Stellan. "Relationship Between Complexity and Liking as a Function of Expertise", *Music Perception* 22/4 (Summer 2005), pp 583-611.
- Parsons, Michael. "The Music of Howard Skempton", *Contact* 21 (Autumn 1980), pp. 12-16.

- Peyser, Joan. Twentieth Century Music, The Sense Behind the Sound (1970), (New York, London: Macmillan Publishers, 1980).
- Potter, Keith. "Howard Skempton: Some Clues for a Post-Experimental 'Movement'", *The Musical Times* 132/1777 (March 1991), pp. 126-130.
- Perle, George. *The Listening Composer*, (Oxford, Berkley, Los Angeles: University of California Press, 1990).
- S., F (full name unknown). Preface to *Fünf Sätze für Streichquartett* by Anton Webern, Trans. E. H., (Wien: Universal Edition, c1949), UE 5888 W.Ph.V.358.
- Salzer, Felix. *Structural Hearing: Tonal Coherence in Music* (1952), (New York: Dover, 1982).
- Schönberg, Arnold. "Foreword to Anton Webern's 'Six Bagatelles for String Quartet Op. 6'" (1924), *die Reihe* 2 Anton Webern (1955) (eds. Eimert, Stockhausen), (Pennsylvania: Theodor Presser Co., 1959), p. 8.
- Shepard, Roger. "Cognitive Psychology and Music", *Music Cognition, and Computerised Sound, An Introduction to Psychoacoustics* (ed. Cook), (London: MIT Press 1999) pp. 21-36.
- Skarada, Christine. "Alfred Schutz's Phenomenology of Music", *Understanding The Musical Experience* (ed. Smith), (New York: Gordon and Breach, 1989), pp. 43-100.
- Smith, Joseph. "Variation in Music and Thought: A Critique of Factualism", Understanding The Musical Experience (ed. Smith), (New York: Gordon and Breach, 1989), pp. 209-227.
- Spoo, Robert. "Rival Confessors in "Chamber Music": Meaning and Narrative in Joyce's Lyric Mode", James Joyce Quarterly 26/4 (Summer 1989), pp. 483-498.
- Stockhausen, Karlheinz. "Structure and Experiential Time", die Reihe 2 Anton Webern (1955) (eds. Eimert, Stockhausen), (Pennsylvania: Theodor Presser Co., 1959), pp. 64-74.
- : "Four criteria of electronic music" (1971), *Stockhausen on Music* (ed. Maconie), (London: Marion Boyars, 1989), pp. 88-111.
- _____. "Clavier Music 1992", Trans. Kohl, *Perspectives of NewMusic* 31/2 (Summer 1993), pp. 136-149.

- Tan, Sui-Lan et al. "The Effects of Repeated Exposure on Linking and Judgments of Musical Unity of Intact and Patchwork Compositions", *Music Perception* 23/5 (June 2006), pp 407-421.
- Wallin, Nils Lennart. *Biomusicology, Neurophysiological, Neuropsychological, and Evolutionary Perspectives on the Origins and Purposes of Music*, (Stuyvesant, New York: Pendragon Press, 1991).
- West, Robert et al. "Modelling Perceived Musical Structure", *Musical Structure and Cognition* (eds. Howell et al.), (London, Academic Press: 1985), pp. 21-52.
- Whittall, Arnold. "Form", *Grove Music Online*, *Oxford Music Online*, http://www.oxfordmusiconline.com/subscriber/article/grove/music/09981 (accessed September 2, 2009).
- Willson, Rachel Backles. "Kurtág's Instrumental Music, 1988-1998", *Tempo* 207 (Summer 1998), pp. 15 -23.

Boulez, Pierre. douze notations (1985), (Wien: Universal Edition, 1988), UE 18310. Brecht, George. "Solo for Violin, Viola or Contrabass" (1962), Fluxus Performance Workbook (eds. Friedman et al.), (Performance Research e-Publications 2002), http://www.thing.net/~grist/ld/fluxusworkbook.pdf (accessed September 2, 2009). Crumb, George. Black Angels (1970), (New York, London, Frankfurt: Peters Edition, 1971), EP 66304. Feldman, Morton. Last Pieces (1959), (New York: Edition Peters, 1963), EP 6941. Ferneyhough, Brian. Epigrams (1966), (London: Edition Peters, 1996), EP 7122. ____. Sonatas for String Quartet (1967), (London: Peters Edition, 1968), EP 7118. _____. Exordium for String Quartet (2008), (London: Peters Edition, 2008), EP 71045. Kurtág, György. Acht Klavierstücke (1960), (Wien: Universal Edition, 1965), UE 14140. . Játékok I (1973-79), (Budapest: Editio Musica Budapest, 1979), Z 8377. ____. Hommage à Mihály András, 12 Microludes for string quartet (1978), (Budapest: Editio Musica Budapest, 1995a), Z 8716. ____. Officium Breve, in memoriam Andreæ Szervánszky (1989), (Budapest: Editio Musica Budapest, 1995b), Z 13959. Maxwell-Davies, Peter. Five Little Pieces (1967), (London, New York: Boosey & Hawkes, 1968), BH 19737. Schönberg, Arnold. 6 kleine Klavierstücke Op. 19 (1913), (Wien: Universal Edition, 1977), UE 5069. Skempton, Howard. Collected Piano Pieces, (Oxford: OUP, c1996), P22067. Stockhausen, Karlheinz. Klavierstücke I - IV (1952), (Wien: Universal Edition, c1984), UE 12251. Webern, Anton. Fünf Sätze für Streichquartett (1909), (Wien: Universal Edition, c1949), UE 5888, W.Ph.V.358.

Sources – Scores Page 75

_____. Variations (1936), (Wien: Universal Edition, c1965), UE 10881.

Quoted from (Aeschylus: 1974)

(p.167)

(p.153)

(p.149)

Movement I A song without music,

(p. 159) A sword in the senses...

And a fire in the brain; A clamour of furies To paralyse reason, A tune full of terror, A drought in the soul!

Movement II See neither licence, where no laws compel,

(p.165) Nor slavery beneath a tyrant's rod;

Where liberty and rule are balanced well Success will follow as the gift of...

Movement III Will you still sleep? Oh, wake! What use are you asleep?

(p.150) Since you so slight me, I am abused unceasingly

Among the other dead, for him I killed, and wander Despised and shamed. I tell you truly, by them all

I am held guilty and condemned.

Movement IV Though we are many, few words will suffice.

Movement V The gleaming snake that darts winged from my golden bow,

And painfully spew forth the black foam that you suck From the flesh of murderers. What place have you

Within these walls? Some pit of punishments, where heads

Are severed, eyes torn out, throats cut, manhood unmanned, Some hell of maimings, mutilations, stonings, where Bodies impaled on stakes melt the mute air with groans –

Your place is there!

Movement VI Now for this one brief hour you see those ragers quiet,

Those hunters caught in sleep; these ancient ageless hags,

Whose presence neither man nor beast could bear.

Movement VII Come dread and friendly Powers

(p.182) Who love and guard our land;

And while devouring flame Fills all our path with light,

Gather with gladness to your rest.

And let your voice

Crown our song with a shout of joy!

Quoted from (Joyce: 1907)

Movement I

(p. 1) STRINGS in the earth and air

Make music sweet:

Strings by the river where

The willows meet.

There's music along the river

For Love wanders there,

Pale flowers on his mantle,

Dark leaves on his hair.

All softly playing,

With head to the music bent,

And fingers straying

Upon an instrument.

Movement II

(p. 15) FROM dewy dreams, my soul, arise,

From love's deep slumber and from death,

For lo! the trees are full of sighs

Whose leaves the morn admonisheth.

Eastward the gradual dawn prevails

Where softly-burning fires appear,

Making to tremble all those veils

Of grey and golden gossamer.

While sweetly, gently, secretly,

The flowery bells of morn are stirred

And the wise choirs of faery

Begin (innumerous!) to be heard.

Movement III

(p. 28) GENTLE lady, do not sing

Sad songs about the end of love;

Lay aside sadness and sing

How love that passes is enough.

Sing about the long deep sleep

Of lovers that are dead, and how

In the grave all love shall sleep:

Love is aweary now.

Movement IV

(p. 20) IN the dark pine-wood
I would we lay,
In deep cool shadow
At noon of day.

How sweet to lie there, Sweet to kiss, Where the great pine-forest Enaisled is!

Thy kiss descending
Sweeter were
With a soft tumult
Of thy hair.

O unto the pine-wood At noon of day Come with me now, Sweet love, away.

Movement V

(p. 16) O COOL is the valley now
And there, love, will we go
For many a choir is si

For many a choir is singing now

Where Love did sometime go.

And hear you not the thrushes calling,

Calling us away?

O cool and pleasant is the valley And there, love, will we stay.

Movement VI

(p. 11) BID adieu, adieu, adieu,

Bid adieu to girlish days,

Happy Love is come to woo

Thee and woo thy girlish ways-

The zone that doth become thee fair,

The snood upon thy yellow hair,

When thou hast heard his name upon

The bugles of the cherubim

Begin thou softly to unzone

Thy girlish bosom unto him

And softly to undo the snood

That is the sign of maidenhood.

Movement VII

(p. 10)

BRIGHT cap and streamers,
He sings in the hollow:
Come follow, come follow,
All you that love.
Leave dreams to the dreamers
That will not after,
That song and laughter
Do nothing move.

With ribbons streaming
He sings the bolder;
In troop at his shoulder
The wild bees hum.
And the time of dreaming
Dreams is over -- As lover to lover,
Sweetheart, I come.

Movement VIII

(p. 27) THOUGH I thy Mithridates were,
Framed to defy the poison-dart,
Yet must thou fold me unaware
To know the rapture of thy heart,
And I but render and confess
The malice of thy tenderness.

For elegant and antique phrase,
Dearest, my lips wax all too wise;
Nor have I known a love whose praise
Our piping poets solemnize,
Neither a love where may not be
Ever so little falsity.

Movement IX

(p. 32) RAIN has fallen all the day.
O come among the laden trees:
The leaves lie thick upon the way
Of memories.

Staying a little by the way
Of memories shall we depart.
Come, my beloved, where I may
Speak to your heart.

Movement X

(p. 17) BECAUSE your voice was at my side I gave him pain,
Because within my hand I held
Your hand again.

There is no word nor any sign

Can make amend—

He is a stranger to me now

Who was my friend.

Movement XI

(p. 36) I HEAR an army charging upon the land,

And the thunder of horses plunging, foam about their knees:

Arrogant, in black armour, behind them stand,

Disdaining the reins, with fluttering whips, the charioteers.

They cry unto the night their battle-name:

I moan in sleep when I hear afar their whirling laughter.

They cleave the gloom of dreams, a blinding flame,

Clanging, clanging upon the heart as upon an anvil.

They come shaking in triumph their long, green hair:

They come out of the sea and run shouting by the shore.

My heart, have you no wisdom thus to despair?

My love, my love, my love, why have you left me alone?

Movement XII

(p. 22) OF that so sweet imprisonment

My soul, dearest, is fain-

Soft arms that woo me to relent

And woo me to detain.

Ah, could they ever hold me there

Gladly were I a prisoner!

Dearest, through interwoven arms

By love made tremulous,

That night allures me where alarms

Nowise may trouble us;

But sleep to dreamier sleep be wed

Where soul with soul lies prisoned.

Quoted from (Kurtág 1995a: 6)

