# Portfolio of Compositions

## Developing a personal compositional approach based on attributes of spoken language

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**Music**

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# Abstract

This compositional portfolio comprises eight original works presented in musical scores. The works were written between October 2013 and April 2017 during the course of my PhD research. The compositions featured are for a variety of combinations of voices and solo instrument up to full orchestra. Audio recordings of performances are included for all except the final orchestral work. In these compositions, I introduce a new compositional idea, *declaiming,* which I have been developing and which is explained in this commentary. This idea is used to determine the formal structure of these pieces. Unique approaches to using this compositional idea are described in this commentary, regarding individual works.

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|---|---|---|---|
| ***Lament for Chu Capital II*** | Two voices and ensemble of seven players | April-June 2014 | 11’ |
| ***Late Autumn*** | Chamber ensemble of twelve players | November 2014-January 2015 | 12’ |
| ***The song of winter*** | Vocal trio for soprano, mezzo-soprano and alto | August-October 2015 | 6’ |
| ***The tastes of early spring*** | Alto flute solo | January-March 2016 | 13’ |
| ***Where shall I go?*** | Flute and electric guitar | March –May 2016 | 7’ |
| ***Still Night*** | Soprano, clarinet, double bass and harp | June-August 2016 | 11’ |
| ***Raising · Falling · Floating*** | Orchestra | September 2016-January 2017 | 14’ |
| ***Echoes of Mountains*** | Flute (alto), two voices and large ensemble of eleven players | February – April 2017 | 12’ |

# Contents of the accompanying CD

The scores of some pieces have been revised after the first performances, and so may differ slightly from the recorded versions.

The audio CD contains recordings of most of all pieces presented in this folio except for the orchestral piece *Raising · Falling · Floating*, which has not been performed yet.

# Audio CD

**1. Declaiming Example I** [1] **0:33**
Reciter: Chai Jia

**2. Declaiming Example II**[2] **0:44**

Reciter: Chai Jia

**3. *Lament for Chu Capital II* for vocies and chamber ensemble 11:00**

Performed by Chimera Ensemble
Sir Jack Lyons Concert Hall, University of York, UK

5th June 2015

**4. *Late Autumn* for large ensemble 12:00**

Performed by Chimera Ensemble

Sir Jack Lyons Concert Hall, University of York, UK

20th November 2015

[1] The first example of poetic declaiming in Chinese for the Chinese poem *Boudoir in Autumn* (see performance notes of piece *Late Autumn)*
[2] The second example of poetic declaiming in Chinese for the Chinese poem *Boudoir in Autumn* (see performance notes of piece *Late Autumn)*

**5. *The song of winter* for vocal trio** **6:00**

Performed by Chimera Ensemble

Sir Jack Lyons Concert Hall, University of York, UK

18th November 2016

**6. *The taste of early spring* for solo alto flute[3]** **13:00**

Recorded by Karine de Fleyt (Solo Alto Flute)

Ben Eyes (Sound Engineer)

The Trevor Jones Studio, University of York, UK

24th February 2017

**7. *Where shall I go?* for flute and electric guitar** **7:00**

Performed by Sonja Horiahcer (Flautist),

and Flavio Virzi (Electric Guitar)

Chiesa Di Santa Maria Di Canepanova,

highScore Festival, Pavia, Italy

10th August 2016

**8. *Still Night* for soprano, clarinet, harp and double bass** **11:00**

Performed by Heloise Werner (Soprano), Oliver Pashley (Clarinet),

Anne Denholm (Harp), and Marianne Schofield (Double Bass)

For New Dots of the HERMES Experiment,

The Forge, London, UK

16th November 2016

**9. *Echoes of Mountains* for solo flute (alto), two voices and large ensemble** **12:00**

Performed by Karine de Fleyt (Solo Flute doubling Alto),
James Cave (Countertenor I), and Chimera Ensemble

9th June 2017

[3] This piece is premiered in a studio recording with added reverberation, supervised by the composer.

# Acknowledgements

I would like to express my heartfelt gratitude to my supervisor Ambrose Field for his guidance, valuable advice, encouragement, and unfailing support. I must express my sincere gratitude to Dr. Martin Suckling for his helpful feedback and inspiration throughout the course of my research. I also received enormous inspiration and encouragements from Professor Roger Marsh and Professor Nicola LeFanu, who gave both of their time and knowledge throughout the course of my studies. I would also like to thank Dr Thomas Simaku for his valuable advice, Mr Terry Holmes for the award I received, Gilly Howe for her positive encouragement, Ben Eyes for his technical support, and all staff in the Music Department. Heartfelt thanks go to Professor Xunfang Huang for his continuing support and inspiring advice.

I would like to take this opportunity to thank all the individuals and ensembles who have performed or workshopped my pieces: New Dots, Ligeti Quartet, Quartuor Diotima, Kreutzer Quartet, highScore Music Festival, York Spring Festival of New Music, Chimera Ensemble, YOCOCO Ensemble, York St. Johns University, Karin de Fleyt, Peyee Chen and James Cave. Their professional performance brought my music to life and gave me unforgettable experience.

Finally, I must express endless gratitude to my parents for their enduring support and understanding for my PhD studies. I have also appreciated my husband's positive courage, help, and company during our long journeys to the UK. Many thanks also to his family for their support and patience.

# Author's Declaration

I declare that I am the author of this commentary and of all eight original compositions included in this portfolio. This commentary has not been presented or submitted previously to any other institution or for any other degree, diploma and qualifications. All sources are acknowledged as References.

I am grateful to the publisher for permission to reproduce extracts from the compositional score:

Crumb, George. *An idyll for the misbegotten*: © Copyright by C.F. Peters Corporation, New York. International copyright secured. All rights reserved. Reprinted by kind permission of Peters Edition Limited, London.

Jia Chai

# Chapter 1: Introduction and influences

## 1.1 Introduction: Declaiming

*Declaiming* (吟诵) is a special reciting technique in Chinese ancient poetry, and is a unique method of delivering words that lies between chanting and singing. The definition of this word *declaiming* in the *Oxford English Dictionary* is: " to utter or deliver words in a rhetorical or impassioned way, as if to an audience."

> Declaiming Chinese ancient poetry is one of the art forms in which the reciter allows to express the content and the spirit of the poetry emotionally through their own voice. The beauty of the level and oblique tones that only in Chinese language, the prosody and the under meaning of each poem are showed vividly in declaiming.
>
> Wang Enbao(王恩保), in Yang Feng(杨峰 2013:3)[4]

I have been fascinated by declaiming Chinese ancient poetry since my childhood, and I have found there are many aspects in common between this linguistic behaviour and music: the unique pitch trajectory implicated by the Chinese language; the different timescales of declaiming each word; the effect on breathing that comes along with declaiming. Based on these interesting linguistic characteristics of declaiming Chinese, I began my research thinking about how to translate these within my compositions. Meanwhile, *declaiming* is a principal idea that considered as the initial compositional impetus for my PhD research.

Thus, I created the term *declaiming* and tried to build up my own musical language in various ways. My main research concerned creating a relationship between the concept of *declaiming* and that of musical time. I raised some questions for myself: how can I transfer different 'intonations' of Chinese speech into the musical materials? Can the sonic behavior of *declaiming* be transformed from a Chinese poetic context into music? I have explored the idea of *declaiming* through the following aspects:

[4] Yang, Feng. *Studies on Chinese Traditional Chanting — from perspectives of prosody, phonation and respiration*, (Doctoral dissertation, Peking University, 2012), 3.

- Exploring the potential of Chinese, a tonal language, as a means of articulating music. This is done by extracting the pitch materials of Chinese intonations.

- Exploring the sonic possibilities of vocal timbre and the timbral possibilities of instruments; trying to create the sonic effect of *declaiming*. This is accomplished through exploring different extended techniques and sonorities.

- Exploring how silence is perceived in this *declaiming* musical behaviour. This includes a consideration of the speed of delivery, length of phrase, frequency of pauses, emotional character.

- Exploring ways of shaping a phrase that relates to the idea of using silence as a structural device, and building the phrase itself.

This commentary is divided into two parts: in the first part, I will discuss how the *Declaiming* concept serves my music in different ways. In order to clarify how this is an original idea that I created, I will discuss it through three chapters that I called:

1. Declaiming concepts
2. Declaiming effects
3. Declaiming techniques

In the second part, I will discuss the eight compositions individually, including a discussion of the organisation, techniques and structure of each of work.

## 1.2 Influences

Ever since I started to learn composition, I have become familiar with lots of music from the classical to contemporary repertory (from Bach to Stravinsky). When I came to York to study, I was inspired particularly by spectral music and the idea of the silence of music. Some composers that I was interested in are, for example Giacinto Scelsi, Gerard Grisey, Tristan Murail, Kaija Saariaho, and George Benjamin. I was particularly attracted to the sound and timbral colours of these composers. And, the music from

those composers such as Olivier Messiaen, Toru Takemitsu, George Crumb, Salvatore Sciarrino, John Cage and Morton Feldman have worked with silence in music in a variety of different ways, and this has inspired me.[5] The attitudes these composers had to music and their philosophies have strongly influenced my own thinking of music.

Naturally, as a Chinese composer, Chinese culture, art and traditions form a strong background to my music. I like drawing on ideas from Chinese philosophical concepts, calligraphy and brush painting. For example, one pair of concepts is "虚实(xū shí)" in Taoism. "虚实(xū shí)" in English means "being and non-being". Similarly, the painting technique留白 (liú bái) expresses the idea of silence ("leaving space or empty space" in English). Eastern aesthetics are embodied into my music naturally as a Chinese heritage. Additionally, to some extent, Chinese folk music and Operas have influenced my composing. For example, inspired by the Yue Opera(粤剧), I like using pitches F and B as the focal pitches in my music. These pitches F and B are specially used to present the 'crying sound'.[6] I am also particularly interested in the unique vocal technique used in Chinese Opera, which allows the singer to sing a very thin sound by using a nasal effect.

Music, to me, is an expressive method like a language to convey spirit, mood, or the underlying meaning behind something through sound as a medium. Some post-war avant-garde music depends on mathematical organization which operates within a highly organised system.[7] However, the music I composed uses my own approach, based on intuition. I do not fit the musical sounds into predesigned processes or mathematical systems, as I feel the imagination can be quite limited by them (see section 4.1 for example of my process for pitch design). Normally, I like to play some chords on the piano before I start to write music, rather than design a precise table of pitch materials to use in sections of the music. I agree rather with the attitude of Japanese composer Toru Takemitsu, which he described in his book *Confronting Silence*:

> In this mathematical alchemy that (Sic) composers lost the real essence

[5] For a discussion of the relative types of silence in contemporary music see Jenny, Doctor. 'The Texture of Silence'. In *Silence, Music, Silent Music*. Edited by Nicky Losseff, Jenny Doctor. (Adershot, UK: Ashgate Publishing, 2007).
[6] Research Institute of Chinese music, Editing Department. *Ku Hou, Dictionary of Chinese Music*. (Chinese National Academy of Arts, People's Muisc Publishing House.1984.10), 212. ( 中国艺术研究所音乐研究所《中国音乐词典》编辑部编.*苦喉,中国音乐词典*: 人民音乐出版社. 1984.10)212页。
[7] Paul Griffiths, 'Rational and Irrational: Western Europe1945-50', in *Modern Music And After*. (New York: Oxford University Press, 2010), 3-21.

> of music. The mathematical and geometric pursuit of sound apparent in this technique is purely an intellectual act. It carries with it the danger of hardening perceptions, and it is the perceptions that are the basic elements in creativity.[8]

Having been trained in both the Chinese culture and the Western musical traditions, I worked to develop my own musical style through a synthesis of both cultures.

[8] Takemitsu Toru, *Confronting Silence*. (*Berkeley*, California: Fallen Leaf Press, 1995), 80.

# Part I: Declaiming and my music

# Chapter 2: Declaiming concepts

In this chapter, I will introduce two concepts which I consider essential to the idea of declaiming and will show how these are embedded in my music. These two concepts relate to the perception of silence as shown below:

1. *Being* and *non-being*
2. *Yi Jing*

## 2.1 Being and non-being (虚实)

My thinking about sound relates to a pair of Chinese aesthetic concepts "being and non-being (real and absent)". This dualism of "being and non-being" derives from Taoism. In Taoism, energy is the essential element for constructing the universe (space and time). When energy gathers together, it is called *being*(实). When energy is separated, this is called *non-being* (虚). *Being* and *non-being* are coessential and have equal status. In Chinese traditional painting, *non-being* (虚) implies a concept of empty space or an un-painted area, or painting using relatively lighter ink. In contrast, *being*(实) can be thought of as a densely painted area.

Fig. 1: Zhang, Daqian (张大千): *the pigeon stays on the red leaves* (*红叶白鸽*)[9]

[9] Daqian, Zhang, ( 张大千), painting 'private collection', accessed April 20, 2017. http://blog.sina.com.cn/s/blog_a404f6dd0101gfep.html.

Fig. 2: Zhao, Fu (赵黻): *Jiang Shan miles（江山万里图)*[10]

These two pictures demonstrate two ways of perceiving *being* and *non-being*. From the first picture, there is a clear contrast between the real painting and the empty space. However, in the second picture, the obscured mountains for which the painter used light ink can be treated as *non-being*. The mountains for which the painter used heavier ink, then, is to be considered *being*.

I considered how these two methods might apply to my compositional process. *Being* is the translation[11] of *sound into nothingness*; *non-being* is the translation of *nothingness into sound*. This philosophy of *being* and *non-being* can be understood between "something" and "nothing" in sound. In the following chapters, I will describe how the sonic behaviour of *being* and *non-being* works in my music.

Furthermore, based on these two pictures, I have also used the dualism of the *being* and *non-being* philosophical concept to create contrast in relation to silence in my music. It is expressed through three aspects:

1. Contrast between music events and pauses;
2. Contrast between noise sound and pure sound;
3. Contrast among different layers of motions of sound.

[10] Fu, Zhao ( 赵黻), *江山万里图* 'Private collection', accessed April 20, 2017. http://www.woaihuahua.com/baike/guohua/shanshui/3354.html.

[11] This process of giving equal status to 'sound' and 'nothingness' is important in Chinese culture.

## 2.2 Yi Jing (stillness, tranquility)

Yi Jing (意境) is a philosophical concept in Chinese ancient poetry writing.

> [Yi Jing] refers to an ineffable and meaning-laden artistic space that the poet intently constructs through a combination of his thoughts and feelings with the objects or scene he depicts in his poem.[12]

Yi Jing can also be considered as a fusion of emotion and scene:

> The poet proceeds in such a way that enough 'gaps' and 'holes' are left in the picture so that the reader will fill them as he reads the poem and thus will reenact, re-create or, better still, co-create the poetic world that the poet has or means to put in place.[13]

I decided to simplified the concept of Yi Jing which relates to the poet's imagination of time and space for creating the scene. This concept can be understood as a form of stillness, or the structural quality of the tranquility of silence. This type of silence includes long, sustained sounds and an extremely slow tempo, an idea which is common within all of my works.

## 2.3 Conclusion

These two concepts inspired me to think about silence from an alternative perspective to my previous work. Silence, can be a response to sound that has the same status as sound. In Chinese or Japanese music, silence has the same role as sound; they are on an equal footing. In the article *Music as representation,* the musicologist Böhlman highlights the difference between Western and Eastern silence:

> In Western music silence begins only when sound ceases, silence has no real independence from sound. When we consider rests in Western

[12] Yanfang, Tang. 'Translating across Cultures', In *Yi Jing and Understanding Chinese Poetry*, Intercultural Communication Studies XXIII :1, (The College of William and Mary, USA), 188.
[13] Ibid.

> music, which simply occupy a place between the end of one set of sounds and the beginning of the next. However, the concept *Ma* (emptiness) in Japanese culture, representing silence is fundamental to the concept of music[14]. We realise that music has itself entered several new metaphysical levels: those evident in music's interaction with religion, with the human senses, and with human experience. The point is that music represents silence by representing much, much more.[15]

In my view Böhlman's opinion about 'rests in Western music simply occupy as place between the end of one set of sounds and the beginning of the next' is based on the idea that rests present nothing to hear. However, many contemporary Western composers think silence in a new perspective that from concept. For example, John Cage proposed that silence is not empty: In his most famous piece *4'33"*, listeners hear the ambient sounds in the silence. As Cage himself posited, 'it is the intention, rather than the presence or absence of sound (composed or otherwise), that marks the boundary' [16]. Japanese Zen Buddhism had strongly influenced Cage's thinking about silence[17], which caused his thinking of silence to differ from a traditional western approach.

The way of perceiving silence in Asian culture relates more to the imagination or feelings that lie beyond sound. This is a very different process to that employed in La Monte Young work, in pieces such as *The Tortoise, His Dreams and Journeys*. It is important to note that this concept of musical silence extends beyond religious implication.

[14] Böhlman, P.V. 'Music as representation', *Journal of Musicological Research*, (University of Chicago Press, 2005), 213.
[15] Ibid.
[16] Brooks, Willams. 'Pragmatics of Silence'. In *Silence, Music, Silent Muisc*. Edited by Nicky Losseff, Jenny Doctor.( Adershot, UK: Ashagte Publishing, 2007), 125.
[17] Kay, Larson. *Where the heart beats: John Cage, Zen Buddhism, and the inner life of artists*, (First published by The Penguin Press, 2012).

# Chapter 3: Declaiming effects

## 3.1 Declaiming effects*: exhaling* and *inhaling* through *sound*

The characteristics of *declaiming* are manifested through a flexible tempo of reciting, the changes of Chinese intonations, and the act of prolonging words. All these ideas are contained within the linguistic behavior of declaiming, which caused me to consider the concepts such as phrasing and silence in my music. Thus, I coined the term *declaiming effects,* used throughout this commentary to describe the interaction of musical events and silence. The *declaiming effects* in my music are divided into two stages: "exhaling" and "inhaling". "Exhaling" is manifest in sustaining a sound, which also presents an activity in stillness. "Inhaling" implies a rest that breaks the continuity of sound. I used two types of materials to present the behavior of "inhaling" in music:

1. Noise/soft sounds;
2. Short rests which are not treated as a structural device of using silence (quaver, semiquaver, and so on).

## 3.2 Phrase-based structures

The spoken behaviour of the declaiming inspired me to think about constructing the phrase-based structures. I explored two methods as follows:

1. Shaping phrases;
2. Inserting silence.

### 3.2.1 Shaping phrases

I am interested in the idea of phrase as a musical object. Specifically, phrase in my music not only represents the musical lines horizontally, but also becomes a musical

object of blocks of sound through space and time vertically. I do not delimit the duration of each phrase; it can be a flow of sound within the quality of continuity.
For constructing the phrase-based structures, I have worked on ideas of stretching time and expanding space. These are expressed in my work through experimenting with the idea of a durational ratio to achieve the idea of phrasing in the large ensemble piece *Late Autumn*; setting up several layers of evolution based on homogeneity but with conflicting materials in the orchestral piece *Raising · Falling · Floating*; and creating a fluctuation effect through the transformation of timbre and harmony. This method relates to the manipulation of different timbral layers shifting from one to another, based on the transition of pitch clusters (see pieces *Still Night* and *Echoes of Mountains* described in part II section 5.6 and 5.8). Moreover, the idea of designing an oscillating rhythm is another method for creating the fluctuation effect in the vocal trio piece *The song of winter*. I will explain more about each idea in the discussions on each piece in the second half of my commentary.

### 3.2.2 Inserting silence

The *declaiming effects* inspired me to consider the idea of inserting silence to break the continuity of music in order to achieve the construction of a phrase-based structure. In this case, silence becomes the structural device to form the phrase-based structure. Silence always occurs towards the end of each sound event and which becomes the direct outgrowth of the previous sound. In this sense, the sound event draws silence into an active element. This method is used in two pieces: the piece *Where shall I go?* for flute and guitar, and the piece *The taste of early spring* for solo alto flute.

George Crumb notably combined the use of traditional rests and time-space notation in order to break the musical continuity, and by implication, form a phrase. I find this type of structural silence appeals to me a lot. The durations of rests are notated as durations in seconds. One compositional example is his piece *An Idyll for the Misbegotten* for flute and drums, which includes four lengths of rests: 3, 5, 10, and 13 seconds. This systematic way of notating measured silence in his score encouraged me to experiment with this way of perceiving silence in *Where shall I go?* and *The taste of early spring*. I

used a similar idea of setting different rest durations (to be explored later), but did not use George Crumb's space notation.

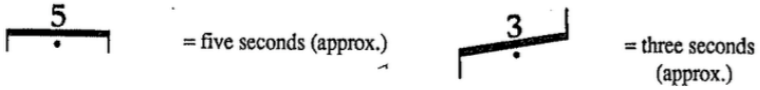



Fig. 3: Crumb, George: *An Idyll for the Misbegotten.* The types of durations[18]

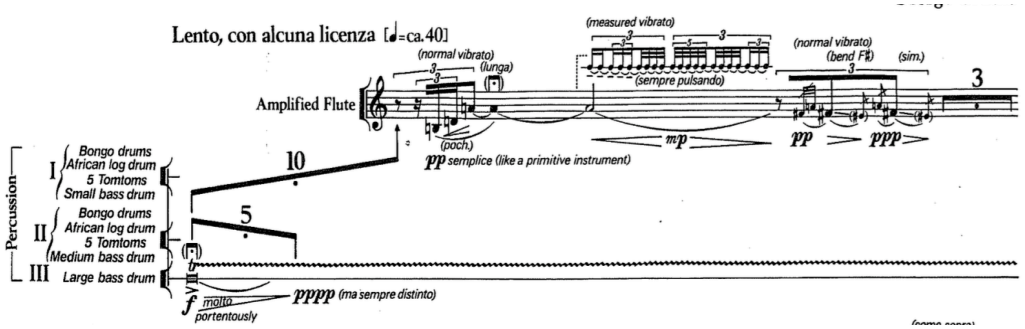



Fig. 4: Crumb, George: *An Idyll for the Misbegotten.* Beginning section.[19]

[18] Gorge, Crumb. *An idyll for the misbegotten.* Performance note, and the first page of score.
[19] Ibid.

# Chapter 4: Declaiming techniques

*Declaiming techniques* consists of three aspects, as follows:

1. *Declaiming-melody*: extracting Chinese intonations of declaiming into musical lines.
2. *Declaiming-sounds*: exploring the sonic possibilities of different types of extended techniques and textures.
3. *Varied repetition*: exploring a way of developing musical materials to serve the construction of phrase-based structures.

## 4.1 Declaiming-melody

I have created the term *declaiming-melody* to describe the technique I have used to map the pitch contours of spoken Chinese into melodic lines. This is distinct from ideas such as Janacek's *Speech melody* because Chinese has an implicit pitch trajectory, and, therefore, so do the results of my process, which is based on a personal approach described in the text below as the result of considering traditional approaches to the declaiming Chinese. In some of my works, I have chosen to extract the musical shape from Chinese spoken intonations as my initial materials. I transcribed my speech by comparing the register and trajectory of my spoken words to musical lines that I played on the piano. As I used Chinese poetry as the text, the intonation curves of declaiming a poem will reflect my personal preferences for vocal timbre and register. For example, in Figure 5, Chinese five-tone ranges 1-5 are shown to indicate the intonation change in Chinese (see Figure 6):

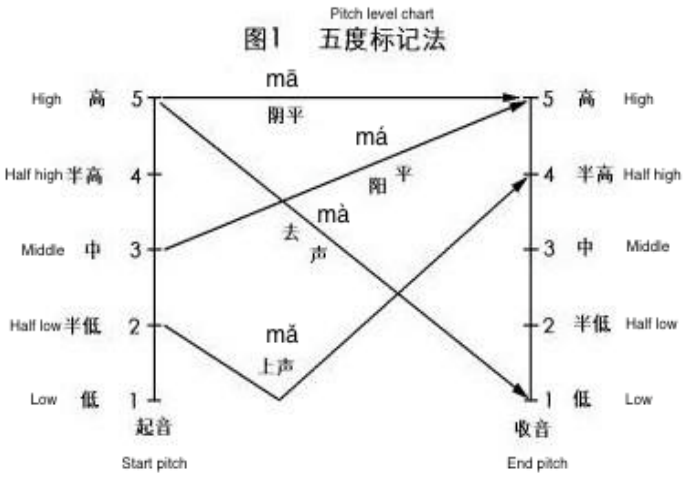



Fig.5: Chinese five tone ranges[20]

**mā-(high and level tone), meaning 'mother'**

**má-(mid-rising tone), meaning 'hemp' or 'numb'**

**mǎ-(falling and rising tone), meaning 'horse'**

**mà-(high-low falling tone), meaning 'scold' or 'swear'**

Fig.6: Chinese four intonations[21]

The speeds of the words are articulated are according to the emotional expression and the meaning of the text. I translated the four intonations into pitches with in Figure 7 shows four example melodic shapes that I have extracted from reading these four intonations in my pitch register.

My rhythmic choices for these intonations are largely based on my own spoken habits. From speaking these four tones, you may notice that the glissando is salient for constructing the melodic shape. The long arrival pitches represent a point of focus within these gestures. The glissando is one of the most clear characteristics of these intonations which inspired me to create the *declaiming sounds* (see chapter 4.2). The grace notes help present the melodic gesture without excess complication.

[20] Chinese four intonations pitch level chart: Accessed April 20, 2016. http://www.baike.com/wiki/阳平

[21] Chinese four intonations: translated by Jia Chai.

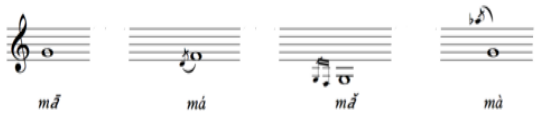



Fig.7: Pitch counters of four intonations

Microtones have an ornamental role within the intonation character of the Chinese language and influence the intonation contours of speech. Microtones act only as coloration in my music rather than playing a more significant role in pitch organization strategies. In Figure 7, one can notice that the semitone is the primary interval for pitch construction within these intonations. Intervals such as a minor third or a major/minor second (and its transposition to the seventh or ninth) have an essential role in my music, serving as the main intervallic structure of chords. Generally, the chromatic scale is used in my music to govern different dimensions of the musical scores: the vertical plane (chords) and the horizontal plane (melodic lines). However, my basic chords fall into two main groups: the main pitch interval of a second, its transposition to a seventh, and its octave replacement, a ninth, are adopted as one main group. Intervals of a third, a fourth and its inversion a fifth are another group. These two groups contribute to the construction of chord-aggregates in my music.

## 4.2 Declaiming-sounds

*Declaiming-sounds* is the term that I use for the exploration of timbre and sonority in reflection to the sonic effect of declaiming. It is based mainly on my thinking about two aspects of *declaiming*: the shapes of Chinese intonations and the effect of breathing on declaiming. Thus, the *declaiming-sounds* include three types of *sounds* that I have been exploring: fluctuation, sliding, and breathy sounds.

### 4.2.1 Fluctuation and glissando sounds

By exploring extended techniques and sonorities, the fluctuation and sliding sounds that I have been experimenting with are shown in the below (table 1):

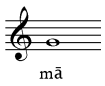
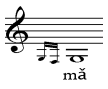
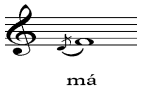
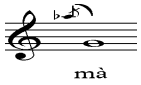
| Classification | Pitch content | Sounds | Techniques |
|---|---|---|---|
| mā |  | Fluctuation | 1. Different types of vibrato<br>2. Tremolo or trill between small intervals: major/ minor 2nd.<br>3. Pitch-bending between narrow intervals (microtones) |
| mă |  | | |
| má |  | Sliding | 1. Glissando up and down<br>2. Tremolo between large intervals like a 7th or 9th |
| mà |  | | |

Table 1: Types of *declaiming-sounds*

1. These techniques have been adopted throughout all of my pieces. A specific explanation for the vibrato and tremolo techniques that I explored is as follows:

i. Three types of vibrato constitute the fluctuation effect. The different types of vibrato are created to demonstrate different processes of gradually changing pressure, speed and timbre.

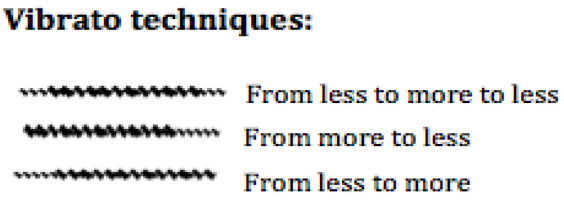



Figure.8: Three types of vibrato

ii. The tremolo technique in the strings within a process of timbral and pressure changes between *sul ponticello, sul tasto* and *normal,* is also an important character of the sound in my music. This extended technique was used in almost all of my music for presenting what I call the fluctuation effect.

2. *The fluctuation sonorities of declaiming*: Apart from the extended techniques that I mentioned before, my music also explored *tremolo action*, as I have termed them. For example in bars 65-68 of *Echoes of Mountains* (Fig.9), the tremolo sonorities at the

instead of a seventh overlap with tubular bells, vibraphone, harp and piano within a dynamic process moving from ***pp*** to ***mf*** to ***pp***, as a constantly shifting tension and space. As another idea of mimicking the fluctuation effect of declaiming, a rapid note repetition gesture mirrors the movements of a bellows, gradually squeezing space and increasing tension.

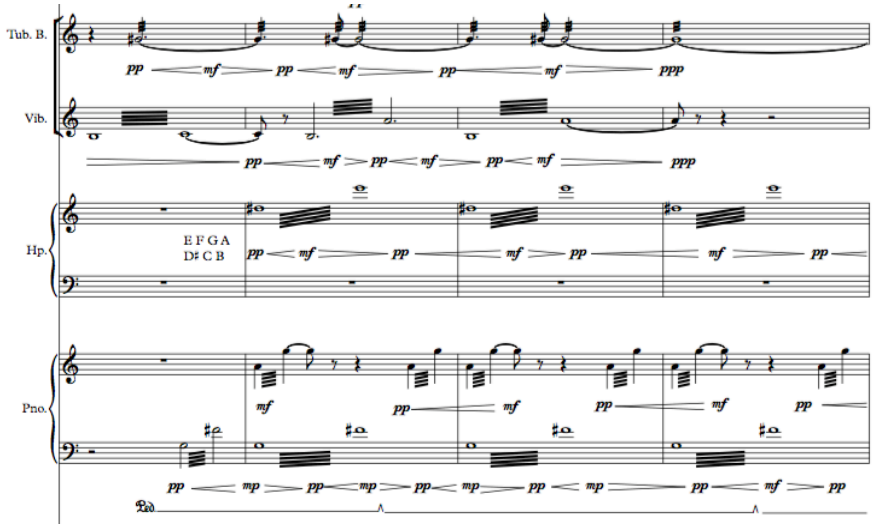



Fig. 9: *Echoes of Mountains*, bars 65-68

3. *The sliding sonority of declaiming*: The ascending and descending intonation shapes of the second and fourth intonation má and mà inspired me to create the glissando effect. This technique was explored first in the woodwind parts of the large ensemble piece *Late Autumn*. For example, in bars 113-116 (Fig.10), the imitative texture creates a sonority with an ascending shape within a chromatic harmonic field.

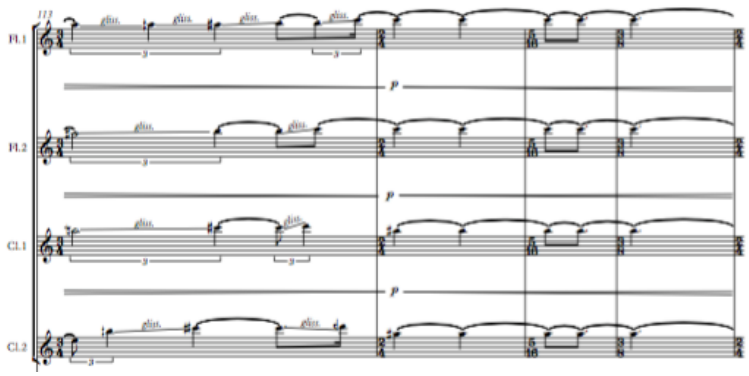



Fig. 10: *Late Autumn*, bars 113-116

Also, in bars 126-127 of *Echoes of Mountains*, in the strings parts (Figure.11). I gave pitches only at the beginning and end of each layer because the sonic nature of this

descending gesture is more important than the pitches themselves at this point in the piece. [22]

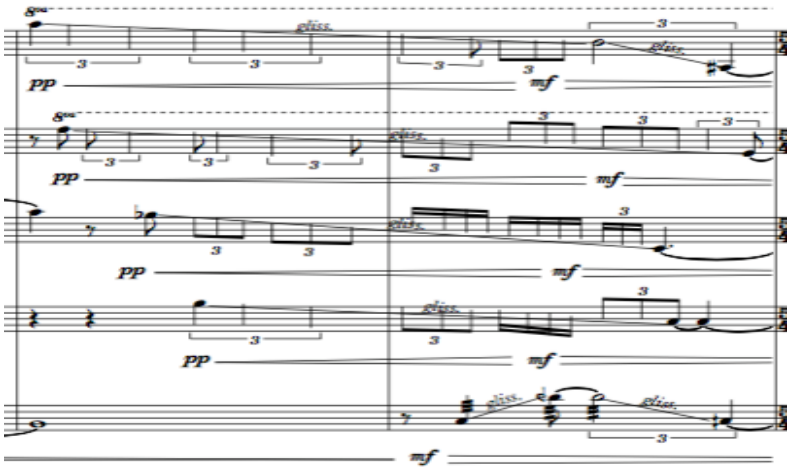



Fig.11: *Echoes of Mountains*, bars 126-127, string parts

### 4.2.2 Breathy sounds

The breathy sounds present the physical behaviour of declaiming. For me, this is comprised of two types of behaviour: exhalation and inhalation. The transition between air sound and pure sound is adopted by instruments in order to present this behaviour vividly. I tried to transform this sound into my music by exploring extended techniques of instruments and voices in my music. For example, in my last piece *Echoes of Mountains,* different types of breathy sounds were shown as follows (Fig.12): for voices, whispering with consonant sounds like "sh"; for woodwind instruments, the players pronounce "sh" using only air sound, or with a half-air sound. At the beginning of *Echoes of Mountains* (Fig.12), the countertenors are only allowed to pronounce "sh" while changing the pressure and speed of breath. The clarinets play air only with the same breath process to respond to the voice, combining to create a breathy-like sonority. For strings, a special way of using bows by playing with half hair and half wood, plus a breath-like white noise sound. In bars 33-38, the string players are also asked to pronounce "sh" and a play a breath-like sound simultaneously.

[22] It was important though to preserve the interval rhythmic details of these lines, hence I have notated them as shown in Fig. 11.

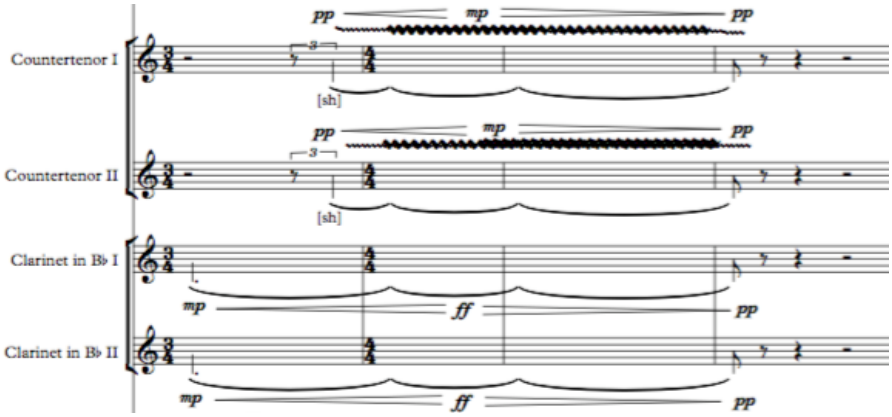



Fig.12: *Echoes of Mountains*, bars1-4

The sound transition between air and pure sounds is adopted as one of my main techniques that I emphasise for woodwind writing throughout my music. This exploration of sonic change serves to build up a type of cyclic form of the breathy effect in *declaiming* (Fig.13).

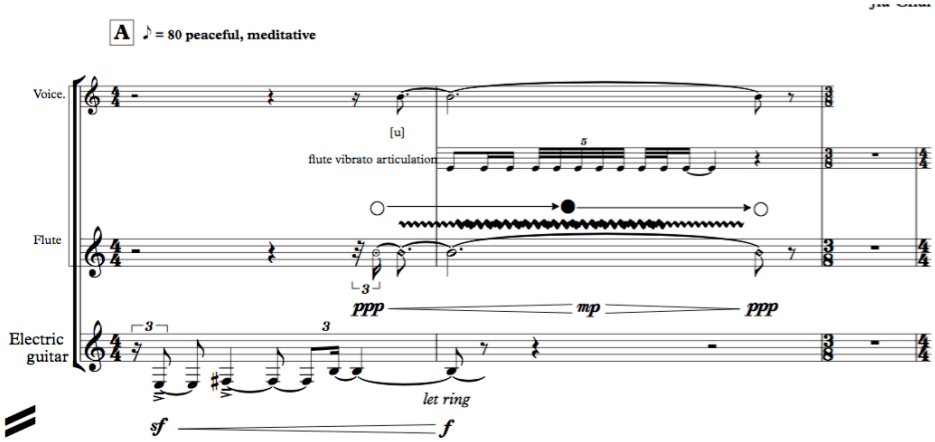



Fig.13: *Where shall I go?*, bars1-3

## 4.3 Varied repetition

I considered how to use materials economically to help me clarify my methods of musical expression. There is a concept in Chinese philosophy called Taoism: 'The Tao gives birth to one; one gives birth to two; two gives birth to three; three gives birth to the ten thousand things.'[23] (道生一，一生二，二生三，三生万物). This concept can be thought of as being similar to a genetic process of passing information down through generations. The gene grows into an object which may have an appearance quite different from the cell. Tao is the essential law of nature and as a concept embodies a continual process of change.

Based on that essential law of change in *Tao*, I adopted the idea of the varied repetition within an evolving quality. This is adopted in my music as an important technique for developing musical materials and building up a structure. Recurrent materials can be recognised by a listener but I always make sure that they are changed each time through applying a different context, instrumentation, tempo and dynamic. For my large-scale works, heterophonic textures were adopted based on the evolving quality of repetition implied by *Tao*. Thus, the four types of varied repetition that I used in my music are as follows:

1. The varied repetition of blocks at a structural level. For example (see table 2), in *Lament of Chu capital II,* the work is constructed from the repetition of two blocks of different materials. The form is: A B A' B' C C'. C is a combination use of recurrent materials from sections A and B, while C' is a coda section that behaves similarly to section C to end of the music.

| **Rehearsal Mark** | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| **Structure based on using materials** | A | B | A' | B' | C | C' |

Table 2: *Lament of Chu Capital II*, structural overview

[23] *Dao de jing* Chapter 42: Translated by Robert Eno 2010, Version 1.1

2. Different types of materials are combined to produce new identities. This method was used mainly in my solo alto flute piece *The taste of early spring*. This idea is illustrated further in part II (section 5.4).

3. The event itself splitting into smaller "cells" that are used separately or combined in different levels of music. In the orchestral piece *Raising · Falling · Floating*, the first 7 bars contain the main attack and decay gestures in the piece. These two gestures are combined, then developed, and finally varied progressively.

4. Musical event and pause. Varied repetition can be understood as a repetition between musical events and pauses, particularly as in my pieces *The taste of early spring* and *Where shall I go?* Here, the varied repetition exists in the musical event itself through establishing a change in context and harmony.

In summary, varied repetition within my compositional process involves the examination of the recombination of my primary musical materials.

# Part II: Commentary for eight works

Part II is scheduled chronologically as follows:
Ensemble of voices and seven instruments: *Lament for Chu Capital II*
Large ensemble of twelve players: *Late Autumn*
Vocal trio: *The song of winter*
Solo: *The taste of early spring*
Duo of flute and electric guitar: *Where shall I go?*
Small ensemble of soprano, clarinet, harp and double bass: *Still Night*
Double wind orchestra: *Raising · Falling · Floating*
Large ensemble of flute (alto), two voices and eleven players: *Echoes of Mountains*

In this part, I will discuss aspects of the pieces composed and how the pieces fit with my general aims of using the compositional idea of declaiming, discussed in part I.

## *5.1 Lament for Chu Capital II* for chamber ensemble

The inspiration for writing this piece came from my interpretation of the Chinese classical verses named *Chu Ci*, written by Qu Yuan, a famous poet in Warring States Period, China (339-278BC). I chose two lines of the texts from the verses for the voice part. These texts convey mainly the desperate feelings the poet had about the state of the government. This work was composed for soprano, mezzo-soprano and chamber ensemble and lasts 11 minutes.

The initial aim of composing this piece was to combine melodic lines and different types of sonorities based on the employment of limited pitch materials, to create an aural understanding of the narrative. The different "voices" shift into other levels within this structure as the piece progresses; any one of them may become the primary voice. For example, in bars 9-15 and 24-33, a similar melodic gesture is shifted from clarinet to vocal part; the pitch is changed from F, G to A, B (see Fig.14 and Fig.15).

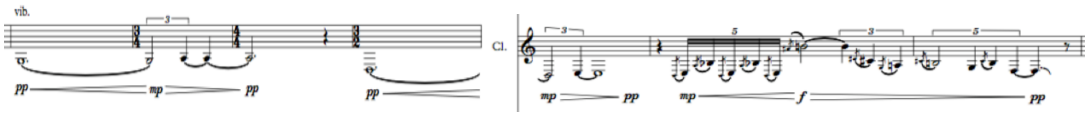



Fig.14: *Lament for Chu Capital II*. The beginning, bars 9-15

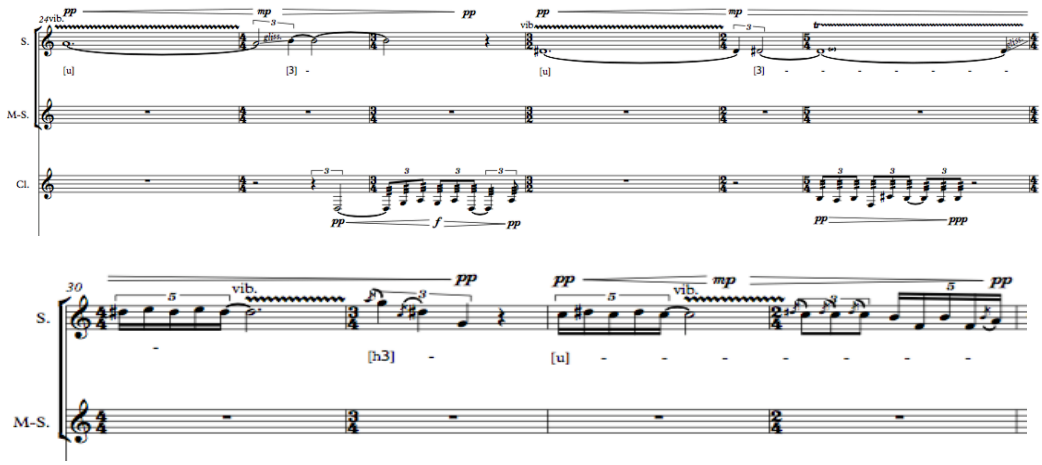



Fig.15: *Lament for Chu Capital II*, bars 24-33

This was the first work of my PhD study. In this early stage of research, I started to explore the timbre and space aspects to describe the *declaiming effects*: a method similar to an echo device, adapted to create a sense of reverberation. In the beginning of the music (Fig.16), percussion 1 plays pitch C sharp with ***pp***. At the same time, violin 1 plays glissando harmonics sounding between F and B with ***f***, then the cello joins with the same gesture. Then the mezzo-soprano sings the same glissando gesture in pitch B but across two registers at a ***pp*** dynamic. Thus, the cyclic process of the dynamics changing from soft to loud back to soft is designed to give the sense of *being* and *non-being* as discussed on page 18. The echo idea is also designed for melodic lines. From bars 32-39 (Fig.17), almost all the instruments play the similar gestures in an imitative process, to create a reverberation effect. Pauses are adopted in this piece relating to the aesthetic of silence that filled in *being* and *non-being*. The rests here function to demarcate the musical events, as well as being part of the musical texture to act the decay of sound. These pauses indicate an absence of musical sound, which is one form of silence.

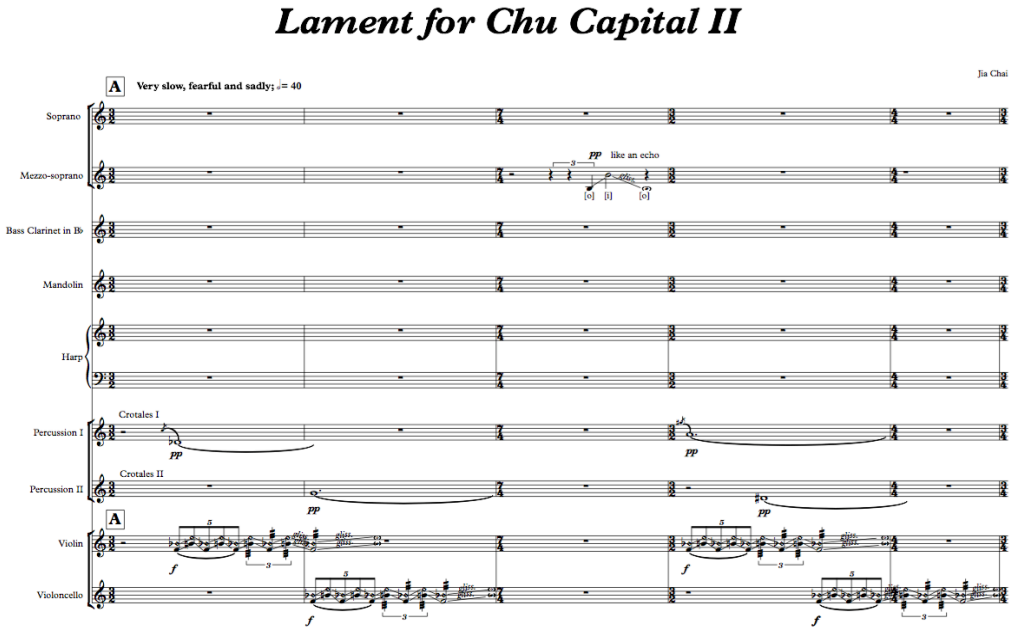



Fig.16: *Lament for Chu Capital II.* The beginning, bars 1-5

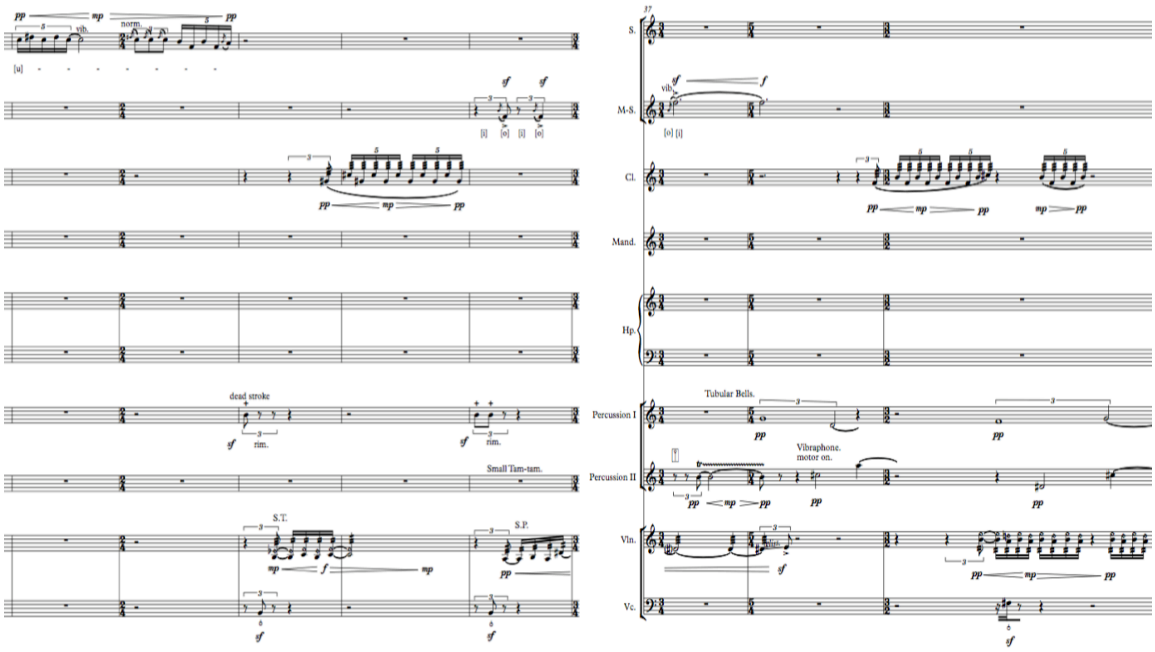



Fig.17: *Lament for Chu Capital II.* Section A, bars 32-39

The glissando sound is one of the main *declaiming sonorities* that I created with different combinations of instruments specifically for imitating the ascending and descending shapes of Chinese intonations (Fig.18). Section A is constructed mainly by juxtaposing glissando sonorities and melodic lines. The glissando gesture is deployed as an echo effect within the percussionist parts, leaving a sense of emptiness to reflect the sound. In section B, this glissando gesture continues to develop in the vocal and string

parts, becoming precisely which be a heterophonic texture of multiple layers, surrounding the harp. This helps to create a small climax in section B.

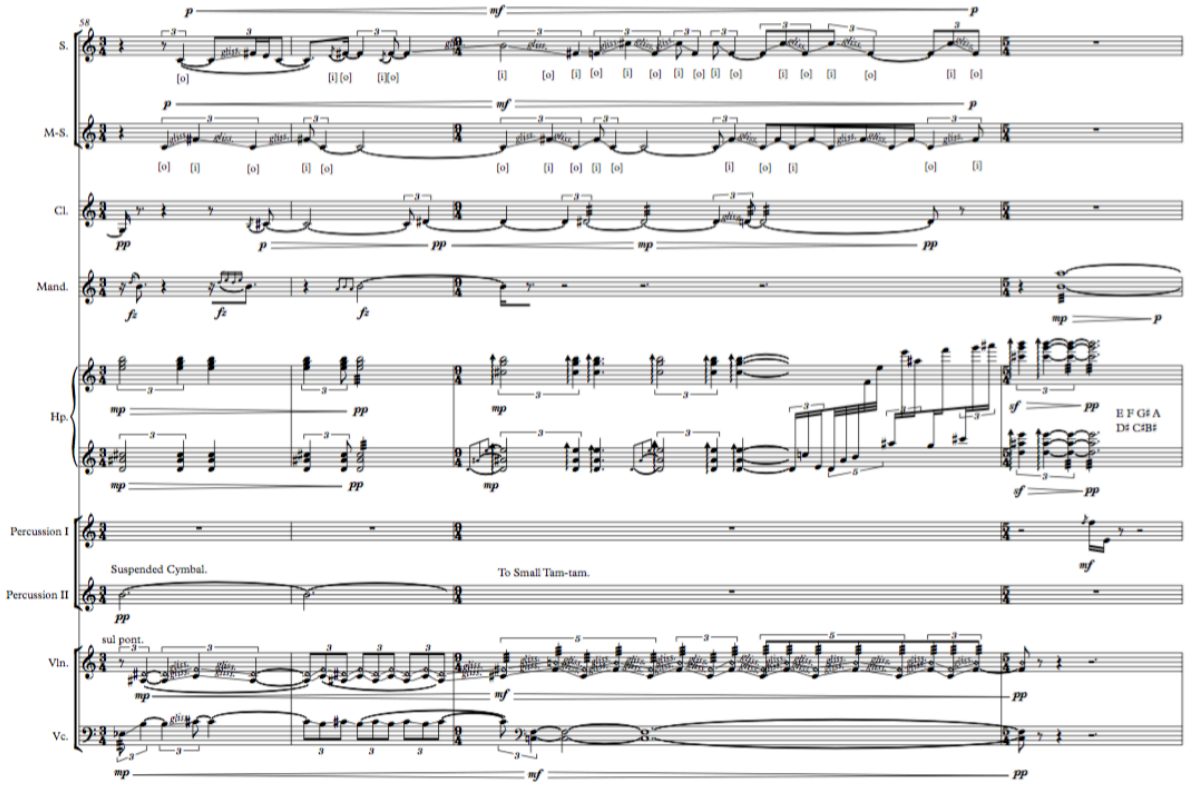



Fig.18: *Lament for Chu Capital II.* Section B, bars 58-61

The structural plan became clear in my mind before I composed. I imagined a dramatic context, creating a bleak and sad atmosphere. This work comprises six sections, with a varied repetition of four types of elements: A, the glissando gesture; B, the melodic line; C, chords; D, pauses. From the table below, we can see that sections A and C, sections B and D, and sections E and F all share similar gestures and surface in their development. However, these are varied in form on the second repetition. For example, in section C, the percussion still performs the same musical function as in section A, but only the cello retains the glissando gesture. Instead, the clarinet responds to the percussion. Meanwhile, the voice parts have mainly a voice-leading role. Section D is almost a repetition of section B apart from the altered harmonic content. (See the harmonic progressions of these two sections in Fig.19 and Fig.20). Section E builds through timbral variation, which distributes recurrent materials differently among the instruments — to the percussion and strings. This device allows listeners to have an expectation that the voice will come through eventually. In section F, a coda section

after section E, all the recurrent materials combined are combined. The music ends with a very soft sound with ***ppp*** in the soprano and percussion parts.

| **Rehearsal Mark** | **A, C** | **B, D** | **E, F** |
|---|---|---|---|
| **Tempo** | **♩=40,very slow, fearful and sadly** | **♩=60, ♪=30** | **♩=40** |
| **Feature** | Glissando sonorities juxtaposed with melodic lines | Melodic lines with vertical chords, glissando sonorities help to make the climax. | Combining materials from previous sections, also giving a musical sense of returning to section A. |

Table.3: *Lament for Chu Capital II*, formal overview

The different combination of instruments in section B makes a clear contrast to section A. The melodic line is taken over by the clarinet and mandolin parts. The chord progression in the harp is arranged to provide a vertical harmonic frame for the music. The glissando gesture transforms to the linear glissando textures and combines with the melodic line played mainly between clarinet and mandolin. Linear melodic textures in the other parts are embellishments around the harp.

I created a non symmetrical harmonic progression based on the main intervallic pitch structure by using intervals of a second (and its octave transposition seventh) and a fourth (likewise, a fifth). These primary intervals act not only as the basic melodic frame horizontally (Fig.14), but also as the basis for the vertical harmonic structure (Fig.19 and Fig.20). Meanwhile, F and B are the central pitches throughout the whole piece within melodic lines and the relative sonorities, creating a feeling of lament in the music.[24] The similar static harmonic cluster progressions are introduced in sections B and D, leading the music up gradually to a climax twice. The functions of these two contrasting sections are more like a connection between sections A and C, and sections C and E. This chord progression seems to maintain a sense of stasis, creating the effect of reverberation around the melodic textures.

[24] See section 1.2 the pitches F and B as the usage as a crying sound in Yue Opera(粤剧).

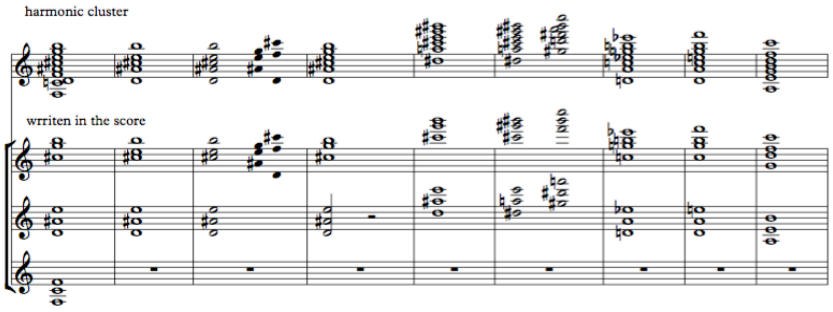



Fig.19: *Lament for Chu Capital II.* The harmonic progression of section B

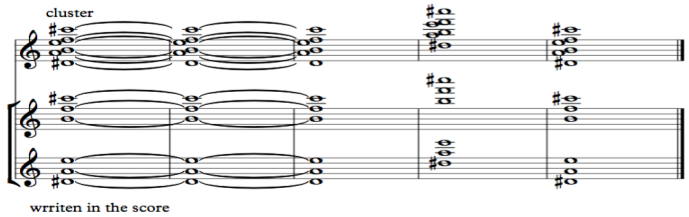



Fig.20: *Lament for Chu Capital II.* The harmonic progression of section D

This piece was performed after my first year of study. I used both English and Chinese texts in this piece, and that was a challenge for the singers. Also, I introduced some special vocal techniques such as using the nasal singing effect characteristic of Peking Opera. I gave tutorials to the singers to help them pronounce Chinese and to use the nasal effect in the way I required. Looking back on this piece, I have found it is a significant piece as it paved the way for my further research development. This piece contained many small ideas that were inspired by the *declaiming* idea. However, I later modified the vibrato technique used within this piece for creating the idea of prolonging phrases such as in *Still Night*.

## 5.2 *Late Autumn* for large ensemble

The inspiration for composing this piece came from my interpretation of the poem *Late Autumn* which is written by ancient poet Yu Li (978 AD). I was interested in exploiting the potential for musical settings to convey the subtext of the poem. The concept of " 静 (silence) , 空(emptiness) " and the onomatopoeic use of " 风（wind) " in the poem which inspired my approach to manipulating the musical material. This work consists of two movements, lasting 12 minutes.

This is the first piece in which I started to think about the relationship between my idea of *declaiming* and musical time. The technique of prolonging timescale in *declaiming* first motivated me to think about the duration of phrasing and the concept of proportion inside a phrase, rather than a specific pulse or meter in the form of a periodic reference point. However, the concept of phrasing was not very clear in my mind at that moment. Before I started writing the second movement, I experimented many times with declaiming this poem by myself.

At the start of my research, the method for the second movement of this piece was to construct a phrase-based structure based on the general durational ratio of each word that I declaimed. I documented the duration of my declamation of each word and composed proportional events based on this experiment. In the second movement, for example, the first line of the Chinese text is: 深 shēn-----院 yuàn ----静 jìng. From my personal declaiming, the general duration of declaiming each word was: 深 shēn 2 seconds, 院 yuàn 1.25seconds, 静 jìng 4 seconds. Thus, the durational ratio is 2:1.25:4. However, I did not design the ratio of each phrase; instead I kept this sense of the "long-short-longer" durational pattern to make a fairly crude rhythmic phrase pattern.

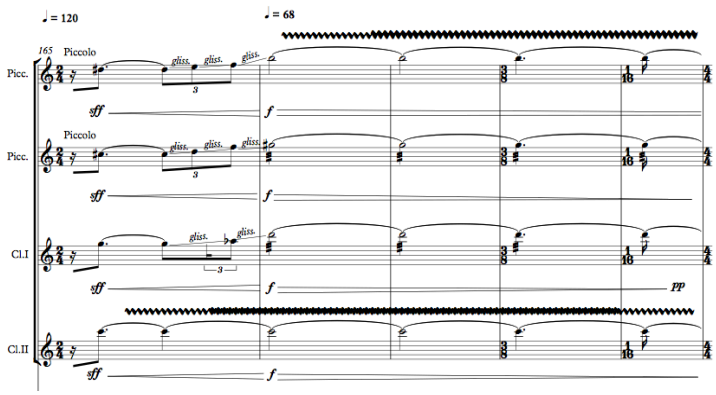



Fig.21: *Late Autumn*, bars 165-173, woodwind part

The idea of establishing the metrical freedom is, for me, derived from the concept of silence.

> Silence is not just absence of sound, or emptiness. Besides this evident physic-acoustic definition, silence can also mean a certain quality on the mind of the listener, brought about by a specific acoustic atmosphere in the music.[25]

The concept of silence for declaiming is used in this piece through the prolongation of the timescale of certain words. One of the methods for creating 'silence' in the second movement of *Late Autumn* is the spacing of chords and repeating the same phrase to emphasise rhythmic articulations within the text. Silence can be presented through the spacing of chords and gradually changing a static harmonic field. This idea of spacing chords to produce silence was inspired by Messiaen's *Le Banquet celeste* for organ. Messiaen turned to sounding material instead of relying on acoustic silence. [26]

> This piece dose not starts with a clear-cut caesura between silence and sound, but rather from a desire to continue the preceding silence. [27]

I tried to construct moments of frozen action - suggesting time 'stopped' to the dramatic stasis of the music. After the concert, I felt the second movement was not a good outcome of this experiment, in which the duration of phrases are designed strictly based on my declaiming of poem word by word. I no longer think of composition as being the arrangement of proportioned duration blocks. For me, composing music should have more to do with 'fluid phenomena'.[28]

The manipulation of timbre and space remained my interest for constructing the first movement of this work. This is not precisely composed spectralism, but draws on the timbres and colours from the spectral style that appeal to me. In particular, bell-like sonorities are in used to create a sense of space and emptiness. The opening passage appears in all instruments using chord 1(Fig.22). The sound of this chord imitates the sound of a Chinese Temple Bell. From bars 1-6, the music continues in the woodwind

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[25] Emmerig, Thomas. 'Strille in der Musik und der " leere Raum" in der Zeichnung", *Musiktheorie19/3,* 2004, 213-214.
[26] Serena, Wang, *The Aesthetics of Silence in the works of Federico Mompou, Chou wen zhon, and Gorge Crumb* (PhD dissertation, Northwestern University, 2005), 4.
[27] Jan, Christiaens. 'Sounding Silence, Moving stillness: Olivier Messiaen's *Le banquet celeste*'. In *Silence, Music, Silent Music*, 58.
[28] Finnish Music Information Centre: *Magnus Lindberg*. Originally published in French in the collection, IRCAM 1993, 21.

and strings parts as a prolongation of the resonance of this chord. In the first six bars, I aimed to describe the "silence 静 and empty 空" atmosphere, creating a sense of bleakness. Static fields sustain this specific chord for a long duration, and thereby creating a reference to the sonority of the previous passage. The first chord, based on pitches F and B are distributed between the piano, harp and percussion parts, while the motive in the woodwind and strings parts (and its variations) reiterate these two pitches several times in a high register during the course of the first 26 bars of the work. I built a texture made from multiple layers, with a narrow pitch band in the woodwind parts with melodic lines that I extracted from the spoken text. Glissando and vibrato techniques are used for creating the micro-sound fluctuations of speech, as discussed in section 4.2.1.

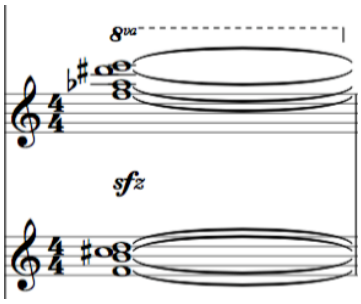


Fig.22: Chord I in *Late Autumn*

This was the second piece in my PhD study. However, the style and method of constructing sound in this work were quite different from the piece of *Lament of Chu Capital II*. In *Lament of Chu Capital II*, I was still thinking about traditional ways of using different repetitive blocks. In contrast, I now thought more about the vertical design of the music. The idea of creating a decaying sound is rather important for the other two large-scale pieces of mine and is developed further within them.

## 5.3 *The song of winter* for three voices

***清平乐·年年雪里***

年年雪里，常插梅花醉。
挼尽梅花无好意， 赢得满衣清泪。
今年海角天涯，萧萧两鬓生华。
看取晚来风势，故应难看梅花。[29]

----- 李清照（Li Qingzhao)

**Thinking of Mume Blossoms While Wandering**

—to the tune of Qing ping yue

Year after year while it snowed,
I often drank to intoxication.
And I had the fresh Mume blossoms,
Inserted in my hairpins,
I ruffed gently the Mume blossoms,
Till they turned to be withered petals,
When I felt sad, depressed,
Crystal tears dropped on my dress.
Now I wandered from place to place,
My hair turns grey on my temples.
Beware of the violent wind in the evening,
The Mume blossoms are in danger!
----- translated by Mao Yumei（矛于美 译）[30]

*The song of winter* was written for soprano, mezzo-soprano and alto and lasts about 6 minutes. The inspiration for this piece was from a Chinese Song Ci poem called *Qing ping yue· Nian nian xue li*( 清平乐·年年雪里). The story of the poem concerns the act of

[29] 古诗文网: Chinese ancient literati community, accessed June 15, 2017. http:// www. Gushiwen.org/GuShiWen_77ee1b2885.aspx.
[30]清平乐·年年雪里 English translation，accessed January 15, 2018. http://www.en84.com/dianji/ci/200912/00000853.html.

appreciating the plum flower each winter. The poem conveys different emotions following the changes in the poet's life. The first sentence of the poem conveys the poet's happy life at a younger age with her lover. Life becomes harder during her middle age especially when her husband is dead, and life becomes difficult in the end from a terrible political situation. Time and emotion are the essential elements for this poem. My interpretation of the poem is that time seems to be an acceleration and deceleration process, affected by emotional change. Happy life always goes fast, conversely, the hard life seems to go more and more slowly, like an endless nightmare. The poet used contrasts to compare the different situations of her life. However, I was more interested in the process of time changing in my piece.

There were two aspects that I intended to explore: firstly, how to extract the four intonations of Chinese into the pitch materials and secondly, how to manipulate the time structure to achieve a clear idea of phrasing.

I extracted the specific intervals of four Chinese intonations into the pitch materials as shown above (Fig.7 in Part I, Chapter 4.1). The pitch contour of the second intonation má is introduced at the beginning with pitch B and D in the minor third interval, sung by two sopranos within the homophonic gesture. The alto part functions to prolong the phrase. The sound transforms from a high to low register, shifting in space by leaving a sense of emptiness in the high register. The alto part sometimes crosses in between other parts, sometimes interweaves sounding together in the same register. The central pitches in section A are B and D. The pitches B flat, C, D flat, E and E flat move around the central pitches as an effect of inflection. The pitch contours of the three intonations mā; má and mà are introduced in section B, embedded in a homophonic chord progression (bars 39-43, shown in Fig.23). This melodic choral sonority with a ***ff*** dynamic suddenly breaks the stactic, continuous quality of the music. This type of material only appears twice. The second time (bars138-142) demonstrates the varied repetition of melodic materials. The grace note is quite important here to give a genereal sense of the ascending and decending shapes of the má and mà intonatons. In section D, I created a pitch box in which the four types of pitch materials are arranged in order, based on the intonations of reading each line of the poem. Section D is an improvisation section where I aimed to give more possibilties to the singers. The singers are allowed to sing this section with theatrical performance elements introduced, such as making eye contact with each other and pretending to be in an excited conversation. By looking at

each other, they sense the right moment to continue singing. This explicit acting allows the audience the opportunity to witness a presentation of the poem and to imagine the reality of the poem.

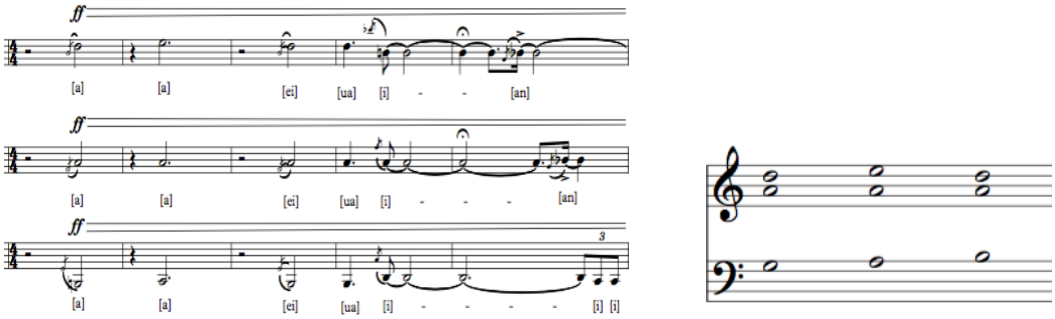

Fig.23: *The song of winter*, bars 39-43

My idea of the *fluctuation sound of declaiming* itself inspired me to think about the idea of oscillating rhythm. However, I was more interested in shifting timbre and space into different dimensions and tried to design a wave-like sound trajectory, in which sound shifts between the foreground and background of the music through time. At the beginning of the work, the two soprano voices have the same materials but stand face to face, helping to make a mirror-like sound transition. Th alto part is more like a sound axis between the interplay of the soprano and mezzo-soprano. On the stage, the alto singer is allowed to stand in the middle, between soprano and mezzo-soprano.

Changes of speed combined with acceleration and ritardando actions are the methods for controlling the pace of the music. Polymetric patterns were created for sections C and D to make an acceleration action of accumulating energy.

This piece consists of six sections (rehearsal marks A to F). I created four types of materials for this piece: the glissando gesture from pitch B to D with a sustained note D an octave lower (Fig.24); the choral melodic gesture (Fig.25); the polyrhythmic gesture (Fig.26) and the noise sound gesture (Fig.27).

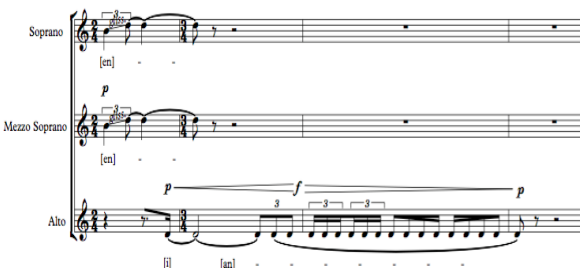


Fig.24: *The song of winter*, bars 1-3

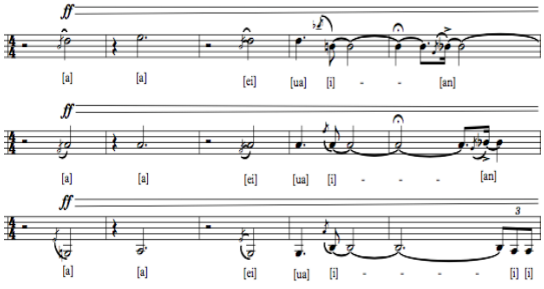

Fig.25: *The song of winter*, bars 39-43

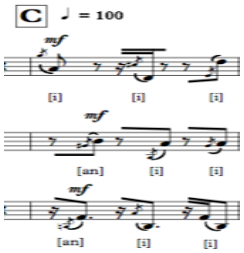

Fig.26: *The song of winter*, bar 63

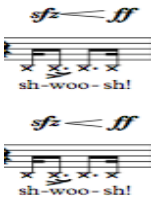


Fig.27: *The song of winter*, bar 105

Section A is constructed from varied repetitions of the first gesture. The music starts with a glissando gesture, which repeats many times under a process of rhythmic change, and sometimes, the three voices interact within the imitative texture. Section B is a transition section, in which the choral gesture is introduced to interrupt the continuity of the previous events and prepare for new events. The polyrhythmic gesture in sections C and D brings the music to a climax.

The noise sound within the text *sh-woo-sh* of wind inserted in sections E and F is an onomatopoetic device to conjure up a soundscape by wintry gestures. This noise sound is treated as a manifestation of the 'inhalation'. Introduced in bar 105, it functions as the end of a long phrase. From bars 107 to 112, the long period of 'silence' is designed to respond to the previous events as a function of *non-being* (see Fig. 28). The music ends with this noise sound in order to give the audience more opportunity to imagine the stillness of space.

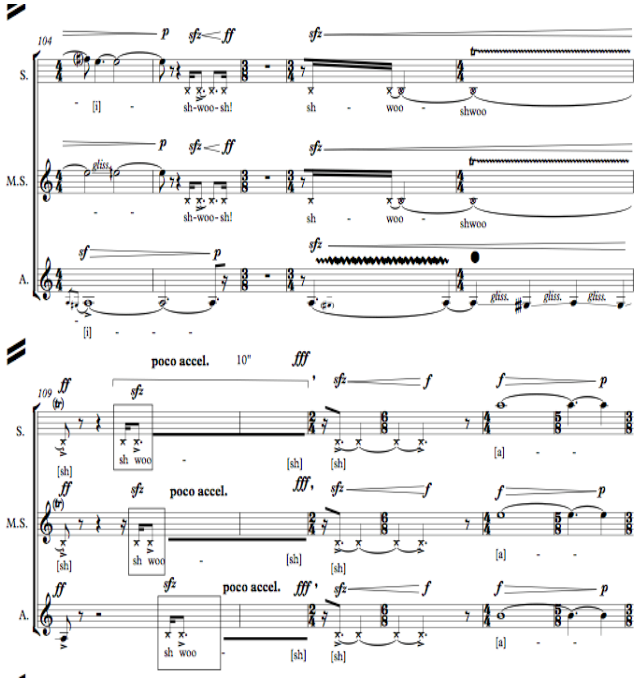


Fig.28: *The song of winter*, bars 104-114

*The song of winter* is a significant piece for my construction of pitch materials, based on my translation of Chinese intonations. This method I thought was quite successful and I will use it in more diverse ways in future works. I experimented with open form for section D of this piece. This method has used to achieve a sense of freedom in the music. However, I did not use this idea in other of my pieces, as I prefer to think of the time-structure of the whole piece when planning my work.

## 5.4 *The taste of early spring* for solo alto flute

*The taste of early spring* was composed for the solo alto flute and lasts about 13 minutes long. It was a collaborative project with the flautist Karin de Fleyt. As the title shows, the inspiration for composing this piece was from nature — the first season in the year. I was very interested in the process of life changes — of new life coming out of death. Early spring brings vivid, fresh new life and I wanted to express the contrast between this and a pale, dark, deathly feeling.

My initial idea was to keep old materials, and combine new material with them as a musical process, to respond to the idea of life changes in nature. This piece exemplifies some of my major compositional approaches. Typically, I start with a collection of musical gestures that I feel are interesting and useful to put together.
In this piece, the most essential materials (Fig.29) are two contrasting gestures: the *dormant* gesture, a long sustained harmonic pitch B flat at a ***ppp*** dynamic starting and ending with breathy sound; the *awaken* gesture, a staccato pitch F with a *sforzando* attack. The collection of gestures used in the first section also includes: a small *glissando* sliding upwards and downwards, blending musical lines (Fig.30); a harmonic tremolo sound (Fig.31); and measured pauses.

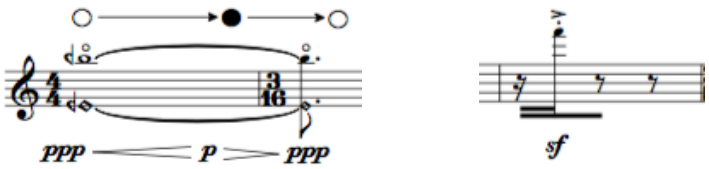


Fig. 29: *The taste of early spring*, *dormant* and *awaken* gestures

These gestures share similar and related pitch material. In the first section they exist within the same register and are often combined. The glissando gesture, upward or downward gestures, transform into musical lines, of rapid up or down trajectory, as the music gradually develops (See Fig.30 and Fig.31). To a certain extent, these gestures are constructed in ways mirroring the form of the whole music. The opening instruction "lethargic and vividly" reveals the characters of the music.

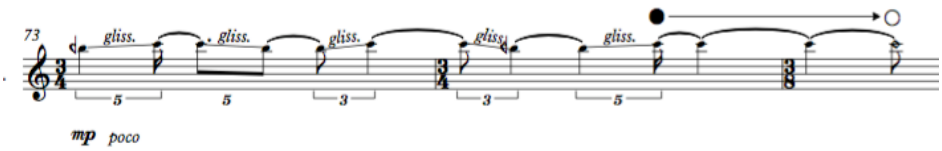


Fig. 30: *The taste of early spring,* glissando gesture

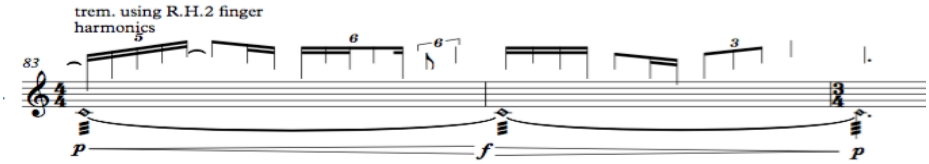


Fig. 31: *The taste of early spring*, harmonic tremolo gesture

The result of juxtaposing all these musical events (including pauses) successively is the creation of what might be termed an 'additive musical structure'. This additive quality can be seen in two aspects: the additive duration of making a phrase; and adding new musical gestures to previous ones (see two examples Fig.32 and Fig.33). In section A, the *dormant* and *awaken* gestures alternate repeatedly based on the focal pitches B and F, which repeat with timbral change.

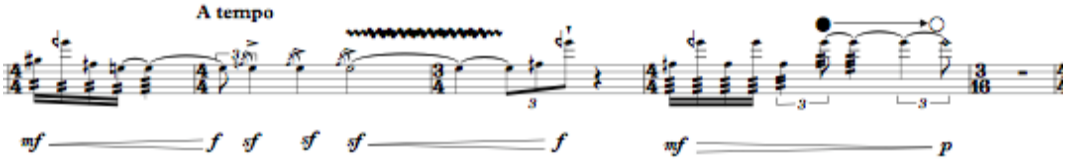


Fig.32: *The taste of early spring*, bars 126-130

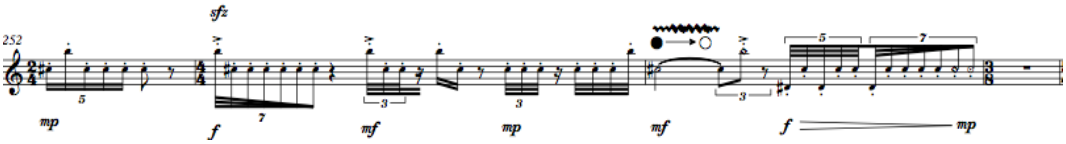


Fig.33: *The taste of early spring*, bars 252-255

This work comprises six independent movements that have the quality of continuity. I changed the form of this piece after I had finished the first draft of the work. There are two versions that differ in the order of sections. My initial idea (the version I) was to create a palindromic structure, which is implied by using recurring materials. For

version I, the six movements are generally grouped into three regions that belonging to very similar sound-worlds: movements A and F, movements B and D, and movements C and E. Movements B and D have a connective function in the work, by using breaks that concatenate to give the impression of a lack of continuity. After the first rehearsal with Karin, I have made an alternative version in which the order of movements B and C was changed (version II, the version presented in this submission). Changing the order of movements offered a new perspective on the structure. Movement B (is the movement C in version II), and D have changed their connective function, and are now linked in a larger overall form through the repetitive quality of the materials.

Compared to the flute and guitar piece *Where shall I go,* I was experimenting with notating silence by adopting the combination of conventional meters. Silence provides a sense of expectation for future events as well as being a decay of sound. Thus, here I used two types of meters: 3/8 and 3/16 are placed between two sounds events for the purpose of tasteful arrangement. In rehearsal, the different combinations of these meters, such as 3/8, 3/16 or 3/8+3/8+3/16, were not always treated accurately. I asked Karin to define certain long or short pauses systematically based on the natural quality of 3/8 and 3/16. I have designed these lengths of silence in such a way that they are enough to be attended to, and yet not too long to lose their hold on the listener's attention.

I have explored a different method of using pitch materials in this piece. In Chinese, five tone ranges 1-5 indicate the intonation changes of words (as mentioned previously in Part I Chapter 4.1: declaiming-melody). Fig.7 in chapter 4.1 shows the Chinese five tone ranges of four intonations. I considered how to develop pitch materials based on this rule. Then I modeled this with OpenMusic, dividing pitches into five sets through four registers (Fig.34) based on the intonations table. I chose to use quartertone scales because they contain the determined microtones, which can provide more possibilities for building up melodic shapes and manipulating sound. This method of using limited pitch material was inspired by the act of dividing the available pitch space. This method is only limiting which set of pitch is chosen, the order of introducing pitch material is random based upon the musical expression.

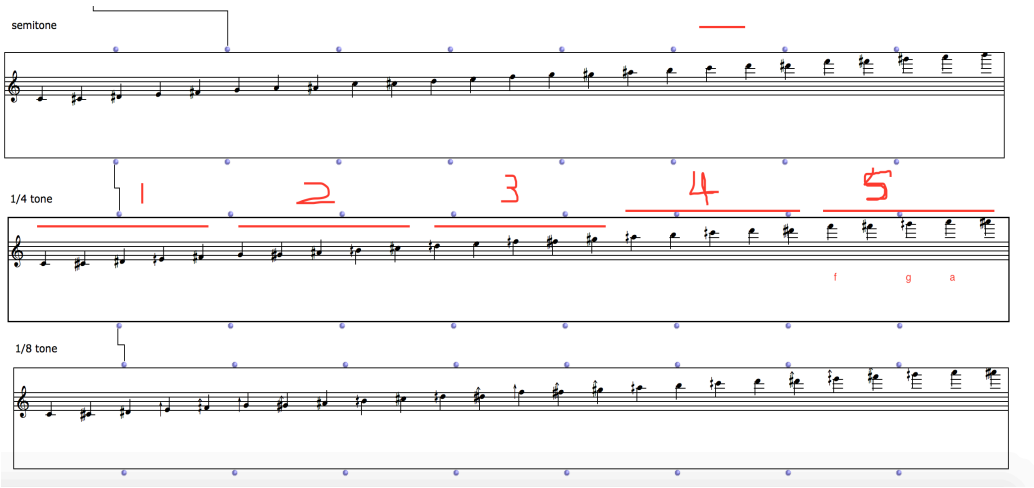


Fig.34: *The taste of early spring*, microtonal scales

In movement A, the pivot pitches B quarter flat (or A three-quarters sharp) and F in set 5 are developed by varied sonic gestures to describe the main, contrasting musical characters (*dormant* and *awaken* gestures). Set 5 implies the first intonation, mā occupying range 5. In movement B, the pitch sets 3 to 5 were chosen for responding to the second intonation *má* that occupies range 3, 4 and 5 in the intonation table. Similarly, the same pitch sets 3 to 5 were used in sections C and D. All the pitch sets 1 to 5 were used in section E, as a response to the last intonation *mà* with a descending shape. Movement F is a short coda section using the main materials (see Fig.34).

This work was constructed from a new exploration of pitch manipulation that differed from other pieces. However, for me, this method of restricting pitch partials limited musical expression. In order to solve this problem, I designed the shape of the melodic gesture based on freely adding the extra pitches that based on the intervallic frame of a seventh or ninth, to respond to the pitch trajectory of the intonation *mà*. For example (see Fig.35), in section B (bars 116-117), the pitch direction is: F sharp-E, micro sharp D-micro sharp C.

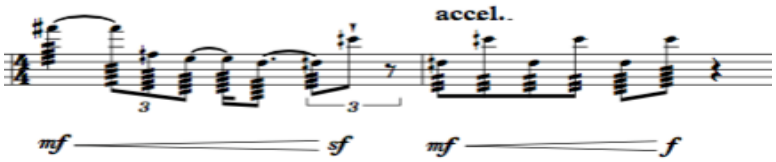


Fig.35: *The taste of early spring,* bars 116-117

## 5.5 *Where shall I go?* for flute and electric guitar

This piece was a turning point for me in exploring the idea of phrase-based structures. It was premiered in Pavia, Italy, for the highScore Contemporary Music Festival in August 2016. My starting point was the idea of creating an effect of sound decaying. Pauses are placed deliberately at the end of each phrase to contemplate the resonances. Silence here helps to raise expectations of the next phrase starting, similarly to the solo alto flute piece *The taste of early spring*.

As the title indicates, I was trying to convey a sense of loss. The thematic motive with an ascending shape, comprising pitches E, F sharp and B, was created to generate a sense of sadness and loss. This sadness motive, first played at the beginning by the electric guitar, is assigned to the beginning of each phrase. The sound appears to be always developing forward and moving repeatedly toward a motivic or harmonic goal. Through continuous varied repetitions, the sound is modified: the music creates a sense of loss, and is 'continually developing' in a liquid form[31]. I wanted musical changes to be as gradual as the declaiming behavior. The resonant effect for me is like holding breath before declaiming a word. Thus, phrasing and rhythm are deliberately loose to suggest the circulating motion of *sadness*. This *sadness* motive recurs in a free manner with phrases of different durations.

Viewed from a wider perspective, the pitches of the melodic motives emerge slowly, eventually resulting in the design of the prolonged phrases. Furthermore, the idea of creating a fluctuation is explored based on a cyclic process of changing speed from slow-fast-slow for prolonging a phrase. Fig.36 depicts the fluctuation action that made by the flute. The music starts from the melodic gesture played by the electric guitar in a low register. The flute plays a vibrato from slow to fast back to slow with a cyclic process of tempo change and dynamic change within one gesture. The melodic gestures seem to imitate improvisation.

[31] The term 'Liquid form' created by Toru Takemitsu for describing the structure of his piece *towards to sea* for flute and guitar: Leung Tai-wai David. 'Reframing the "Sea"'. In *A critical Study of Toro Takemitsu's Toward the Sea* (MA dissertation, The Chinese University of Hong Kong, April 2005), 28.

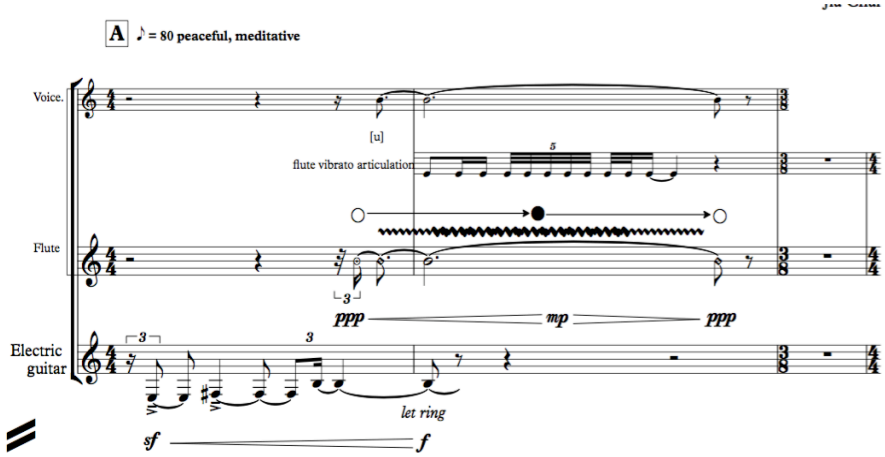


Fig.36: *Where shall I go?* bars 1-3

The initial idea was to use flute and acoustic guitar. I changed the acoustic guitar to an electric one after the rehearsal in Italy. As making resonance is the most important role of the electric guitar, the player suggested that I change the instrument. I tried to keep the natural expressive quality of these two instruments, thus the guitar has mainly as a foreground role, and while the flute part is designed to produce the resonance of the decay sound.

This work comprises four sections, lasting 6 minutes. In section A, the flute plays the vibrato technique as a decay gesture, to prolong the duration of the phrase. In section B, the electric guitar sometimes plays the fluctuation action while interacting with the flute. In contrast, the melodic line shifts to the flute part in section D, while the guitar plays a series of quintuplets and arpeggios in sextuplets that serve as a fluctuation action responding to the flute. These two timbral layers seem merged into a unity of sound, leading the music to a climax section. The music ends at a very soft dynamic on pitch B in the middle register. An open ending is created deliberately to leave the sound in a more spatial context.

| **Sections** | **A (bars1-17)** | **B (bars18-39)** | **C (bars40-72)** | **D (bars73-86)** |
|---|---|---|---|---|
| **Tempo** | ♪= 80, peaceful, meditative | ♪= 96 | | ♪= 72 |
| **Register** | Low | From low to high to middle | | From high to middle, ended at focal pitch B. |

Table 4: *Where shall I go?* formal overview

The harmonic sketch in Fig.37 reveals my use of the focal pitches E, F sharp, B, and F natural to govern the organisation and development of the music. The intervals of a second and a perfect fifth between these four notes shapes the whole piece and are permutated many times through different levels of materials. These two intervals and their transpositions (a seventh and a fourth) are not used horizontally as the basis of a melodic line, but also build a symmetric harmonic frame as in bars 8-9, where the chords comprise E, F, C and B. Sometimes, these pitches are interpolated with other pitch materials (see section 1.2).

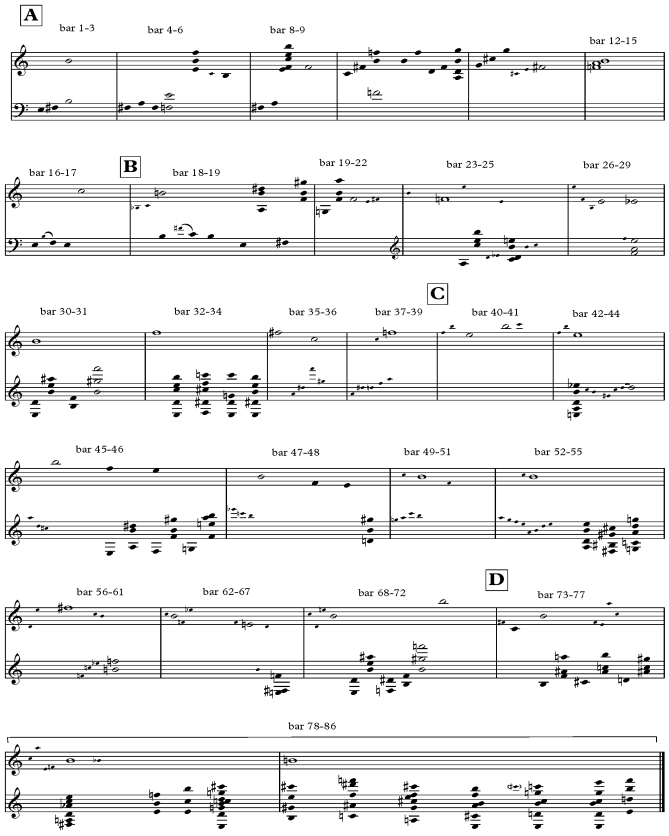


Fig.37: Harmonic sketch in *Where shall I go?*

The initial idea for this piece is to use silence as a structural devise for constructing the phrase-based structure. I experimented with the same method of notating silence as I used in *the taste of early spring*. After these two experiments of creating phrases and silences, I realized the space-time notation would be a good choice to present my compositional ideas in future. When I was composing this piece, I noticed the limits of traditional notation in conveying my composition ideas. Silences in these two pieces are part of each phrase as an echo effect, where silence has an equal status to sound events. In the rehearsal, the performer suggested giving more freedom to performers when articulating these silences.

## *5.6 Still Night* for soprano, clarinet, double bass and harp

*Sill Night* was a commission for The HERMES Experiment (harp, clarinet, soprano, and double bass), supported by the Britten-Pears Foundation, organised by New Dots in 2016, London. It was premiered at Crypt on the Green in Clerkenwell, London on 16th November 2016. The piece was inspired by a centuries-old poem, *Sorrow of the Separation*, by Li Yu (ca. 937-978), one of the best-known Chinese poets of all time. Li's poem, freely translated, reads like this:

Silent, solitary,
I step up the western tower.
The moon appears like a hook.
The lone parasol tree locks the clear autumn
in the deep courtyard.
What cannot be cut,
nor raveled,
is the sorrow of separation:
Nothing tastes like that to the heart.[32]

The theme of the poem is homesickness. Although it is set in an ancient Chinese city, the emotion contained therein transcends time and place. As a foreign student in an unfamiliar country, I have experienced inevitable bouts of homesickness. It also gave me the poetic impulse to depict these feelings in my music. This piece is not intended to echo the narrative flow of the original poem, but to capture the spirit and emotion in a contemporary context.

The initial idea for this piece was similar to the *Lament for Chu Capital II*. Both of these pieces emphasise the importance of the melody, the interaction of instruments and theirs expressive potential. However, *Still Night* became a rather different piece as I did not use texts conventionally in it. Instead, I deconstructed the Chinese texts into its phonetic components – including vowel sounds and consonant sounds - to create a palette of materials for timbral transformation. After I finished *Lament for Chu Capital II*, I was more interested in the instrumental use of the voice. This way of using voice

[32] 普特英语听力网, accessed May 18, 2016. http://www.putclub.com/html/ability/Chiliterature/20130116/64638.html.

brought more compositional possibilities since the voice can be treated as one of the timbral layers. Melody and texture have an equal status in this piece. The melodic line sometimes acts as a leading voice and sometimes is hidden within a complex texture. Compared with the *Lament of Chu Capital II,* in *Still Night* the melodic line was constructed mainly by using intervals of a third, a second and a ninth, which are based on my extraction of the pitch contours of four Chinese intonations. For example, in bars 13-17, the melodic line introduced by the clarinet uses a minor third, as an extraction of the pitch contour of the second intonations of má. (See Fig.38)

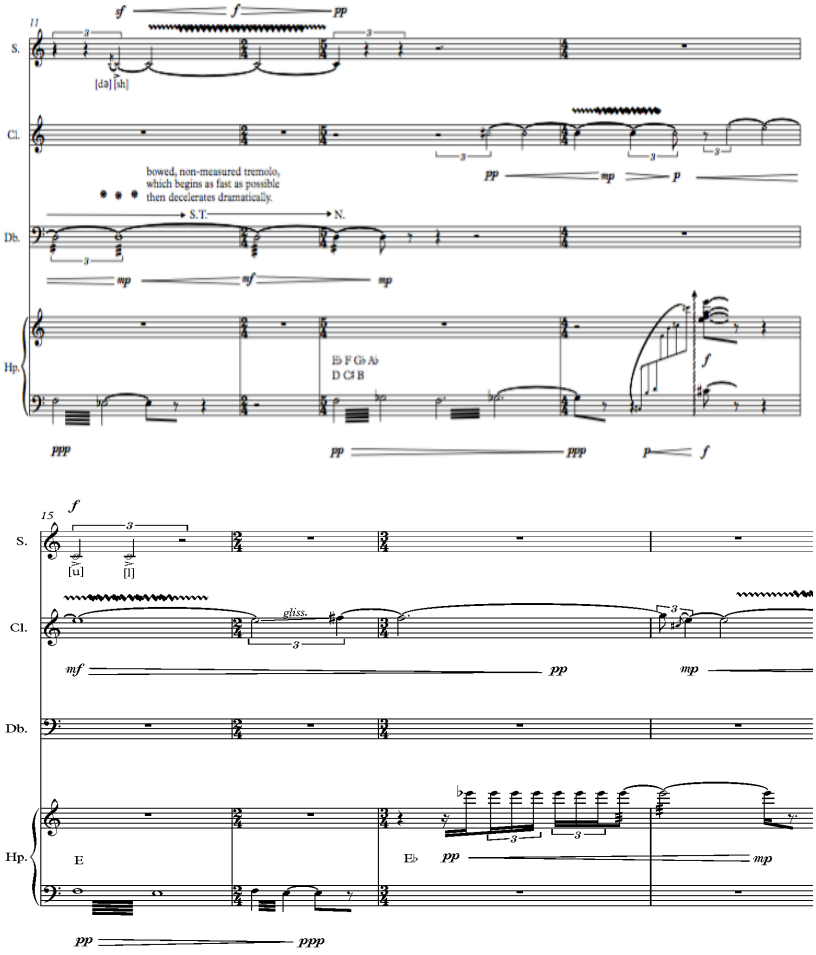


Fig 38: *Still Night*, bars 13-17

This piece consists of four sections with successive transformations of colours and floating gestures. The piece also experiments with tension for creating a continuous quality of sound. For example, in the beginning section, the double bass plays a long note D with bow changes between *normal* and *sul ponticello* also with a dynamic change between ***ppp*** and ***p***. This sustained background created by the double bass depicts the stillness of silence.

The pauses are placed relatively inside each phrase within the timbral and textural construction. However, the music still maintains continuity to pull the listeners into a long period of stillness by drawing their attention to silence. In the beginning section, for example, in Fig.39, the harp maintains absolute stasis with the timbral and tension changes. The sound moves from *sul ponticello* to *normal* to *sul ponticello* with gradually increasing then reducing bow pressures, creating a long period of stasis. The soprano pronounces the phonetics [u] and [i] with whispers, along with pauses of different durations. This contrasting sound arranged between layers is a different method for creating the concepts of *being* and *non-being*. The rests in soprano part seems in a sparse space, like sunshine penetrating through trees, while the double bass functions as a drone-like background. The acoustic silence can be perceived according to this musical content.

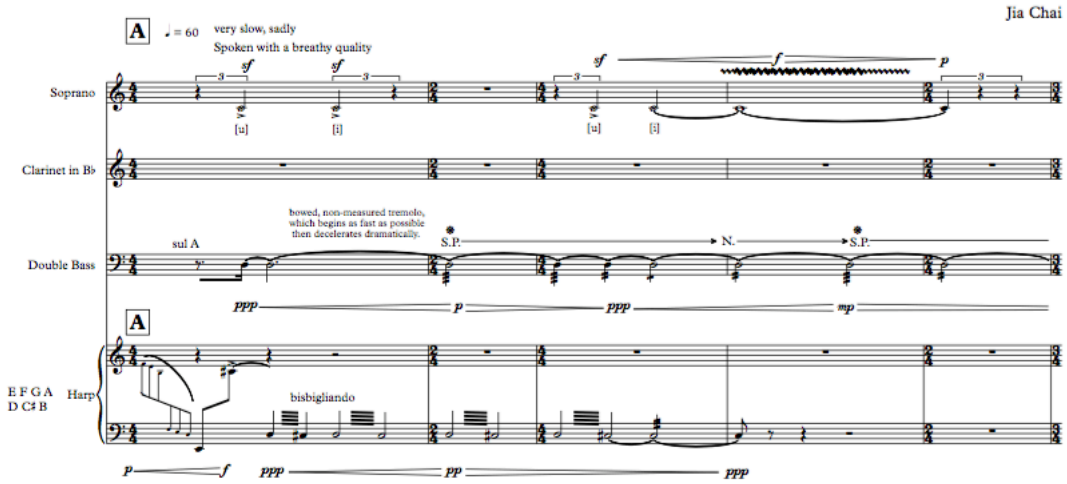


Fig.39: *Still Night*, bars1-5

The work also represents an exploration of the expressive potential of these instruments. I introduced special ways of playing these instruments (such as vibratos for clarinet; glissando techniques for soprano) and changes in articulation and register which served to create a kind of polyphonic, multi-layered sonority. The soft dynamics and subtle changes in timbre are intended to produce the effect of experiencing an event from a distance, as if recalling a memory.

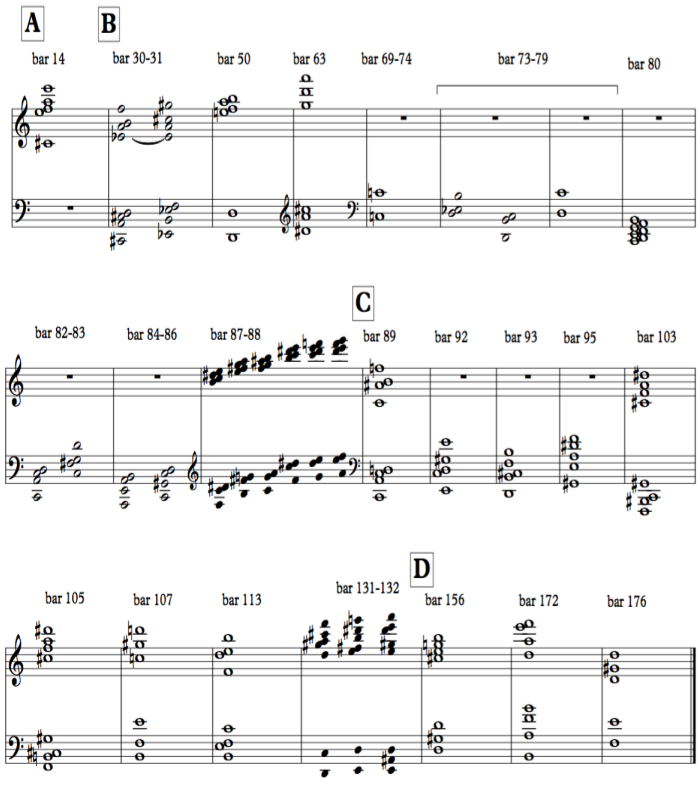


Fig.40: *Still Night*, harmonic progression

Fig.40 demonstrates how the second and ninth intervals construct the basic harmonic frame of chords, as played by the harp, by adding relative intervals. Chords are in section B and C of the harp part provides a function of attack. Meanwhile, other instruments function as an extension of the sound decay. Increasing the density of chords in these two sections helps to build to the climax. In contrast, the first movement introduces a mysterious and still spatial context based on the drone-like sonority played by double bass and harp. There are more conversations between instruments and voices in the last section, with instrumental combinations using recurrent of materials. A short coda-like section ends the piece.

*Still Night* is a small ensemble piece conducted by the singer in the concert. As a result of my designing complex textures of different layers a conductor is necessary to co-ordinate the ensemble. I thought it was an interesting experiment to give the conductor's role to the singer. This is also a quiet piece. In the course of writing this piece, I began looking into ways of perceiving silence as a sustained quality based on the concept of Yi Jing, which relates more to the concept of silence I mentioned before (see chapter 2.2 and 2.3).

| Section | A | B | C | D |
|---|---|---|---|---|
| **Tempo** | **♩=60,very slow, sadly** | **♩=48** | **♩=60** | **♩=60, very slow, sadly** |
| **General dynamic** | ***ppp, pp*** | ***pp, ff, f*** | ***f*** | ***ff, f, ppp*** |
| **Feature** | Sustaining pitch D is played in low register of double bass with fluctuating sound in harp, while soprano pronounces consonant sounds within silence, creating a mysterious and stillness musical context. The melodic line is introduced by clarinet. | Clarinet, double bass and harp interplayed to prolong phrases, melodic gesture floating among different combinations of these instruments. Soprano keeps singing consonants, giving the function of voice leading, sometimes interact with others. | Double bass and harp more like a background for the interplay between soprano and clarinet conveying melody. | A combination of all the layers of sound, bringing music to the end. |

Table 5: *Still Night*, formal overview

## 5.7 *Raising · Falling · Floating* for Orchestra

*Raising · Falling · Floating* is my first orchestral work and is based on the idea of stretching time for mirroring the behaviour of *exhaling*. The piece is scored for a double-wind orchestra with 3 percussionists. The inspiration for this piece came from a consideration of a person's whole life. Life seems like climbing mountains; you cannot always stand at the peak of the mountains. Similarly, during the hardest times of life, you can counter this sadness knowing this period is the preparation for a better life. Thus, I tried to create a wave of transformation by manipulating orchestration and harmony. This piece is marked by the highly gestural writing of different *declaiming-sounds* (as mentioned in Chapter 4.2). This large-scale 'architecture', combines the vertical contrasts of different blocks with a horizontal continuity of temporal transitions. Gaps (silences) are made between these movements of sound, according to the concept of *being* and *non-being* in declaiming (as described in Chapter 2.1).

In this piece, a "phrase" can generally treated as the musical object resulting from the idea of sonic decay. As Figure.41 shows (bars 1-7), sonic decay was my starting point for constructing the first phrase from two elements: an attack gesture and a decay gesture. I was interested in building up the whole structure of music by using these two contrasting materials within the varied repetitive use of recurrent materials. I worked with a combination of polyphonies and a heterophonic process, setting up layers of evolution based on heterogeneity. For example, in section B (bars 36-56), a pointillist texture that derived from the attack gesture is introduced from bar 36. It lasts 5 bars, then a long linear texture is joined by the brass and piano in dialogue. The string parts change the texture gradually from pointillist to linear. The whole texture of the music undergoes a process of sound transition from energetic to static movement. For example in section E (bars 112-129), the sound is constructed by using recurrent materials within a repetitive quality. At this point, the pointillist texture is taken over by the woodwind, percussion, harp, and piano parts. Meanwhile, the horn and strings parts are assigned to keep the linear texture.

The *varied repetition with an evolving quality* became a structural device in this piece through manipulating a constrained set of musical materials in different ways. As table 6 shows, this piece comprises nine sections (A-I) and lasts 14 minutes. The first section is an introduction section to reveal the main character of the music, organised into attack and decay gestures. The attack gesture is developed as the main character at the beginning

of the section B. This gesture evolves gradually transforming into long continuous blocks of sound. In turn, this leads into the very calm, meditative character of section D. The harp and percussion are grouped as if they are a solo part to present this different character. Then the music keeps growing, using materials repeated from before. This block of sound is constructed by manipulating different crude rhythmic layers. The glissando gesture is introduced from section E in the horn section to avoid continuity quality of the music. The attack gesture returns again, interplayed mainly between the woodwind and percussion, and the harp and piano parts. The same technique of transforming musical materials from the attack gesture to the decay gesture is used in sections B to D. This varied repetition of material recurs in this section, bringing the music to its main climax of the whole piece. From section G, the glissando gesture returns as the main feature of the brass parts. The music ends in a very soft, dreamy sound-world with a valedictory melodic gesture in the harp part.

*Raising · Falling · Floating*

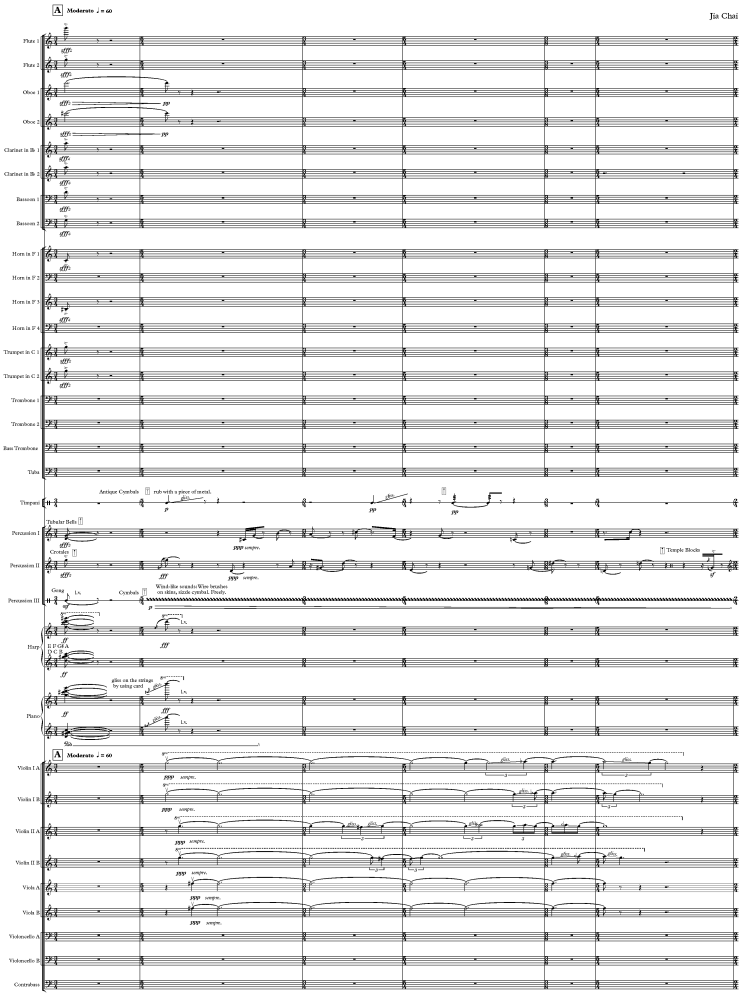


Fig.41: *Raising · Falling · Floating*, bars1-7

| **Formal Phrase** | **A** | **B** | **C** | **D** | **E** | **F** | **G** | **H** | **I** |
|---|---|---|---|---|---|---|---|---|---|
| **Bar** | **1-35** | **36-56** | **57-76** | **77-111** | **112-140** | **141-166** | **167-195** | **196-225** | **226-248** |
| **Tempo** | **♩=60** | **♩=80,♩=90** | **♩=60** | | **♩=80** | | **♩=60,♩=78** | **♩=60** | **♩=48** |
| **Character/Expression Marks** | Moderato | | Meno mosso | Calm, meditative | Più Mosso | | | | Calm, mysterious, dreamy |
| **Dynamic** | ***sfffz,ppp*** | ***ff, f, pp*** | ***f, ff,pp*** | ***p, ff, p*** | ***f,ff,fff,ppp,fff*** | ***ff,f,p,f,ff,p*** | ***pp,ff,pp*** | ***sf,pp,*** | ***ppp*** |
| **Summary of Main Events** | Introducing the material in first 7 bars; it varies repeating for three times | The attack gesture and decay gesture are combined and developed | The attack gesture gradually transforms to the continuity decay gesture. Harp and piano as a solo group | Harp as a soloist at the beginning, music gradually built up. | The attack gesture returns with a new sustaining glissando gesture in horn. | Climax section | A kind of release again. The glissando gesture back in Horn parts, trumpet, percussion and strings parts are joined together. | A combination use of the glissando, attack and decay gestures | Functions as a coda. Woodwind and string parts play very soft sounds with the melodic gesture in the harp and piano parts, to end the music in silence. |

Table 6: *Raising · Falling · Floating*, formal overview

I used a combinatorial approach to harmony in this piece: using intervals based on my own design of chords as shown in Fig. 42 (see section 4.1); and an approach influenced by spectral experiments in sound, whereby a chord is constructed from a focal pitch and occupies a wide pitch range.

In doing so, I have created a harmonic progression spread out over the widest possible range, almost covering every pitch of the chords (from the lowest B and the highest G sharp). The first chord is based on focal pitch G, and is constructed from six-note aggregates: C, C sharp, D, G, G sharp and A. This is the main harmonic reservoir for the work, and comprises intervals of a second, a fourth, and a ninth. It recurs many times throughout this piece, with a number of increasingly distorted variations that serve to contrast its unique character. My compositional concern was to control the sound transition and the tension of music through linear structures. This method also used in my last piece *Echoes of Mountains*.

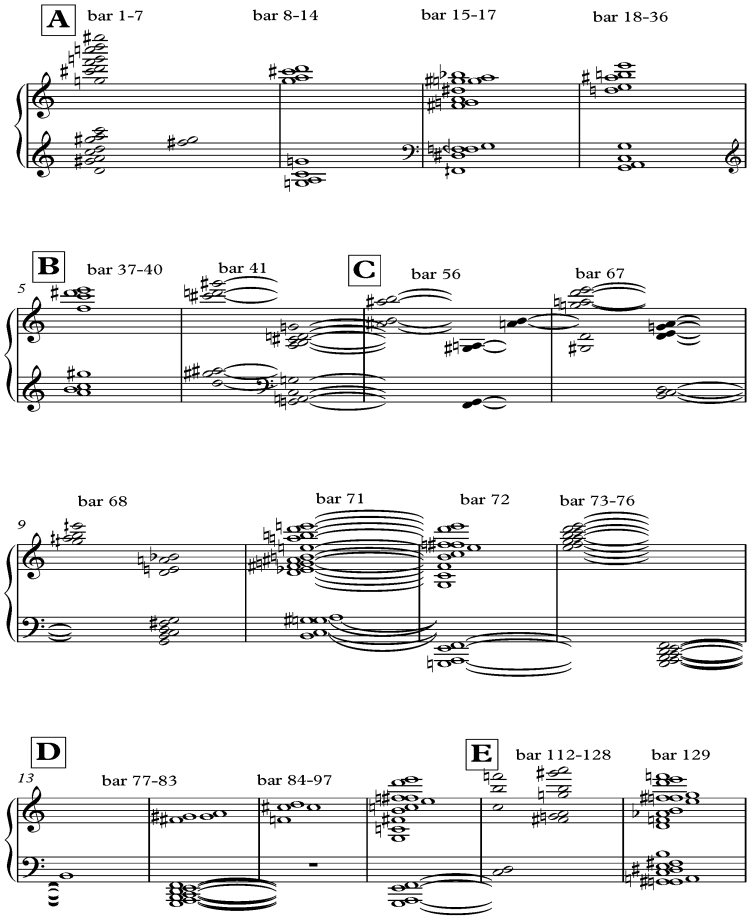


Fig.42: Harmonic sketch in *Raising · Falling · Floating*

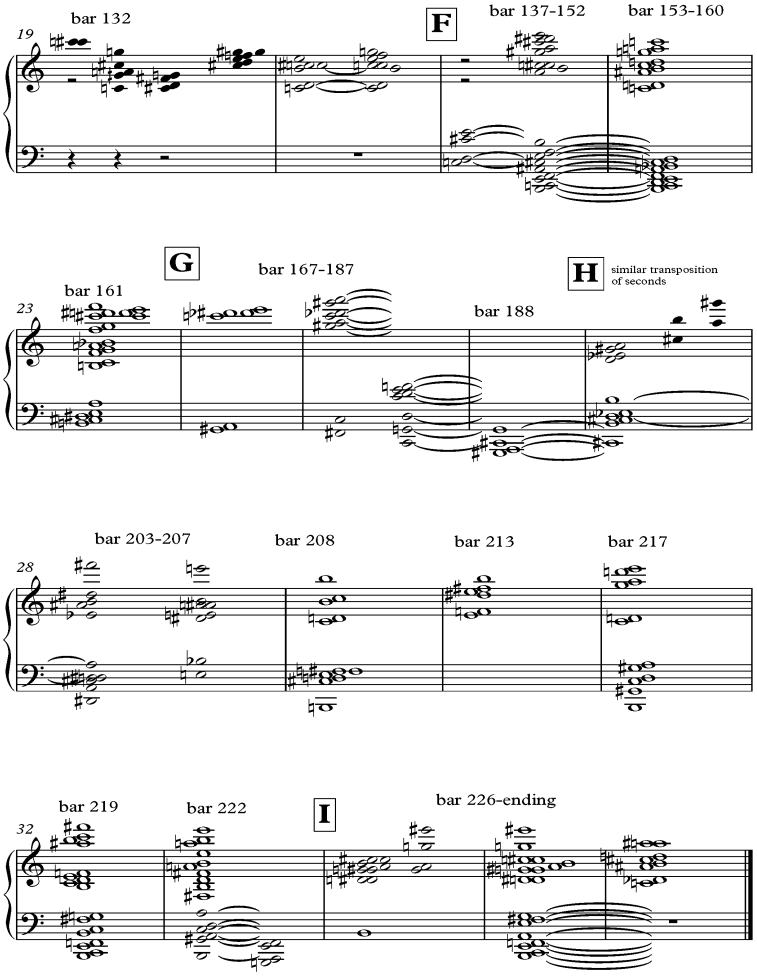


Fig.42: Harmonic sketch in *Raising · Falling · Floating*

This is the largest piece I have written during my PhD study. For this piece, the orchestra is treated as a large sound object in order to articulate several types of decay shape. The orchestration technique I have used is non-conventional, creating a sense of a densely layered texture across different families of instruments.

*Sound shifting* is an important technique for constructing a quality of continuity through complex multi-layered textures. There are two methods that I used to achieve this idea: one is combining timbres from un-related groups of instruments; another is by making extreme dynamic contrasts such as from ***ppp*** to ***p***, or ***ppp*** to ***fff***. I have used the similar methods of creating sound shifting in my last piece *Echoes of Mountains*.

## *5.8 Echoes of Mountains* for solo flute (alto), two voices and large ensemble

*Echoes of Mountains,* commissioned for the Terry Holmes award. It was premiered on 9th of June 2017 by Karin de Fleyt and The Chimera Ensemble. The piece aimed to create a beautiful, enveloping sound-world exploring the relationship between space, narration, and silences. Lasting about 12 minutes and a half, the work is composed for solo flute doubling alto flute, two countertenors and large ensemble.

This was the final composition for my PhD study. In my music before this piece, I aimed to explore the different way of constructing a phrase-based large-scale piece in relation to the different levels of using the *declaiming effects*. Here, phrases are constructed not only at a structural level, but also exist inside the melodic part of the solo flute, like a phrase within a phrase. This work has a concerto-like large ensemble instrumentation, and unusually, the two countertenors are given a secondary role. Creating this relationship led me to consider how to manipulate the solo flute and two voices so that they could be fully integrated with the other instruments. The flute and voices are treated sometimes as a trio group for conveying melody. The voice parts are treated mainly as a single timbral layer, often in dialogue with other instruments. For the most part, other instruments take over and sustain the sound at the end of each phrase of the flute part. The different combinations of sound layers respond to one another.

The idea of presenting the *declaiming effects* relates to two main explorations of processes: constructing additive durational phrases; and expanding the vertical sonority for presenting the *exhaling* idea at a structural level. This idea was based on the use of varied repetition. Another focus relates to building up arch-shaped sound transition processes between noise and 'pure' sound.

This work has a cyclic form in which sections of tension and release follow one another. It comprises four large parts based on 11 phrases (A-L), in which all the parameters make a slow sonic evolution through the changing groups of timbre. All the main parameters are shown clearly in the table 7 below. The melodic lines in this work undergo thematic varied repetition by using focal pitch B and C with other referential pitches in different registers. These four large sections can also be treated as four large phrases at a structural level. The *declaiming effects* are arranged not only arranged

inside each small phrase, but also in the large structural design. Double bar lines are adopted in the score to indicate sectional boundaries and highlight the function of the phrasing.

The whole structure is designed as a loosely symmetrical structure. An additive phrase duration process controls the time and pace of the music. A previous phrase is always preparing for the new phrase, driving the music to its biggest climax (section K). The last section functions as a process of releasing energy. In this way, the whole structure was designed to exhibit the behavior of the declaiming effects.

Part II (sections E, F, and G) and Part III (sections H, I, J, and K) act as the *exhaling* stage. At the climax of section K, all the players play a sustaining sound with *tutti* at ***fff*** (bars 174-181). The solo flute plays pitch G with a minor second trill in its highest register, while the countertenors sing the glissando gesture. The wave-like glissando gesture allows the singers to sing between their highest and lowest pitches. Here, the singers should sing a very thin sound using the back of the mouth, which is a singing technique for Chinese opera. This sound is made quite differently to Western singing technique and lends a different dramatic effect to an Eastern sonority. The percussion plays a tremolo sound at a very soft ***ppp*** dynamic, providing the low resonance sound layers.

Let me turn to the discussion of the arch shaped sound transition process for this work. The contrast of the stages *exhaling* and *inhaling* or the pair of concept of *being* and *non-being* in the *declaiming effects* behavior, based on this arch-like sound transitional process, are demonstrated fully through four aspects as shown in the Figures below:

A: Superimposition and juxtaposition of the dynamics: a process designed horizontally from ***ppp*** to ***ff*** to ***ppp***. Moreover, this dynamic change process is adopted into different layers of sound (see Fig.43).

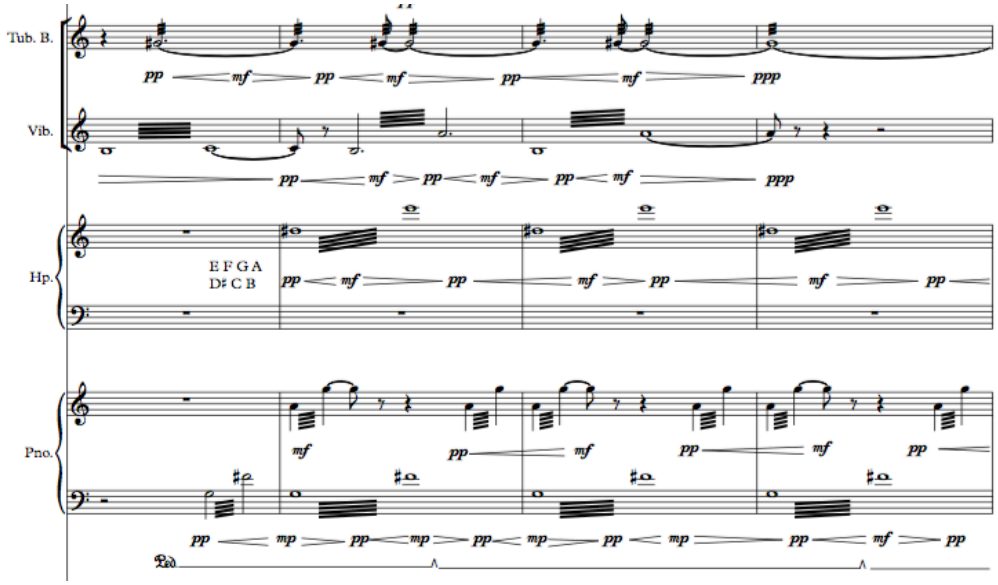


Fig.43: *Echoes of Mountains*, bars 65-68

B: The *accelerando* and *ritardando* actions at the opening and close of phrases are used to manipulate the change of speed for controlling the tension of phrases. For example (see Fig.44), in bar 11 can be treated as an acceleration action in which the dynamic suddenly shifts from ***sf*** to ***ff*** then back to ***sf***. Meanwhile, all the instruments play *tutti* with tremolo and trill techniques, helping to make a sense of contrast in the music. Noise-based sounds are made softly by the countertenors and clarinets to bring a relatively silent mood after moving away from the previous atmosphere.

C: Successions of contrast between noise and pure sound. I aimed to create an arch-like shape of sound transitioning between noise and pure sound in order to present the *declaiming effects*. The preparation stage of declaiming is a kind of inhalation, since lots of breath and noise sounds are part of the creation of pure sound. In order to achieve this idea, noise sounds are placed within the opening and close of each phrase. This sound transition arrangement enables listeners to negotiate their own imagination of the *declaiming effects*. For example, in section A, a quite section ends at a 'surprise' bar, in which all the instruments play *tutti* with ***ff*** then suddenly drop back to ***pp*** in bars 11-13 (Fig.44), before smoothly moving into the next phrase (section B) and back to the quiet atmosphere.

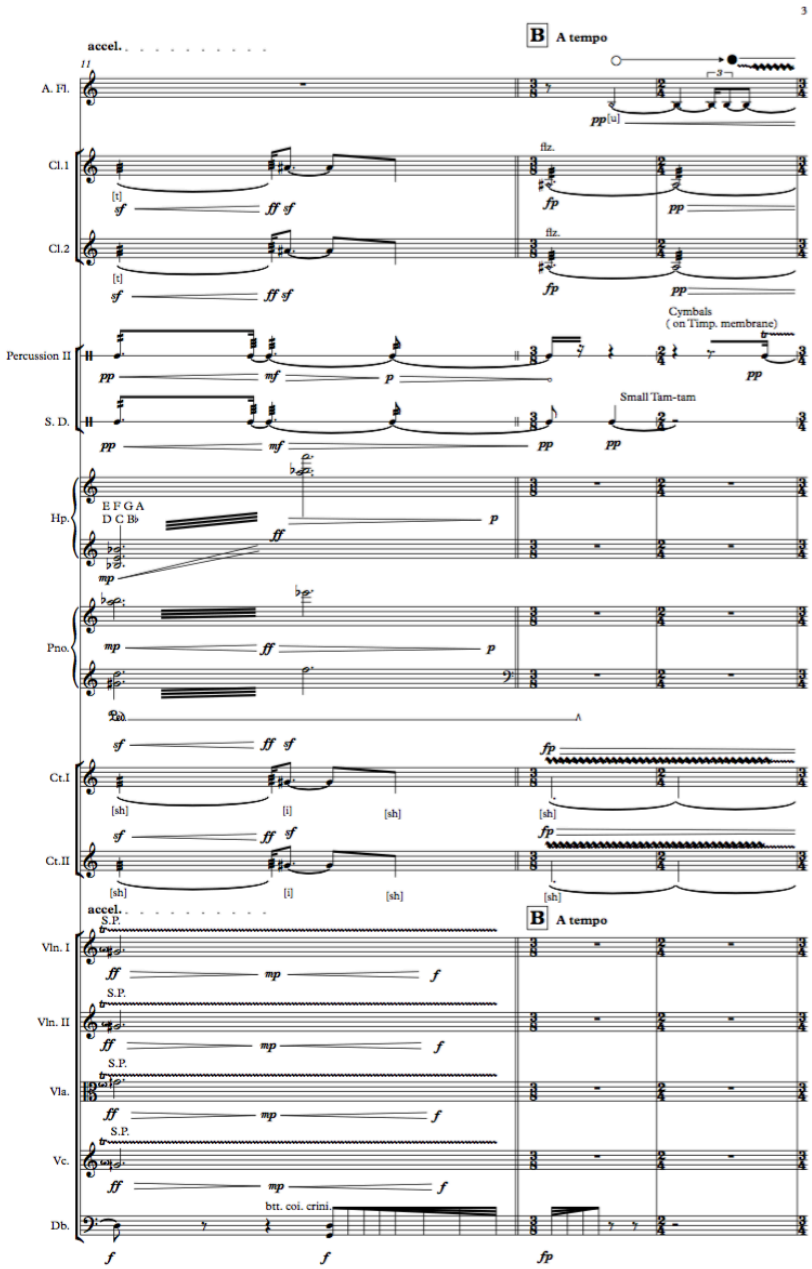


Fig.44: *Echoes of Mountains,* bars 11-13

D: Contrasts in tension by adding to or reducing the harmonic density of chords. Here, I was concerned with changing the sustained focal pitch for constructing each phrase. In the first two sections, shown in Fig.45, the music moves around the focal pitch B, which changes to pitch E in section C. The focal pitch changes back to B in section D. However, chords are added to make a richer sound in this section through the manipulation of texture. Chords are changed based on some fundamental pitch, or the melodic lines are move around the focal pitch based on the harmonic frames of intervals of a second. For the most part these chords represent the end points of the evolution quality of the music, and I used them as catalysts and markers at the end of each phrase. In the first three

sections, the music reveals a phenomenon derived from the combination of the noise sound sonority and melodic gestures in the solo flute part. In these three sections, chords are used near the end of each phrase to emphasise the structural function of phrases.

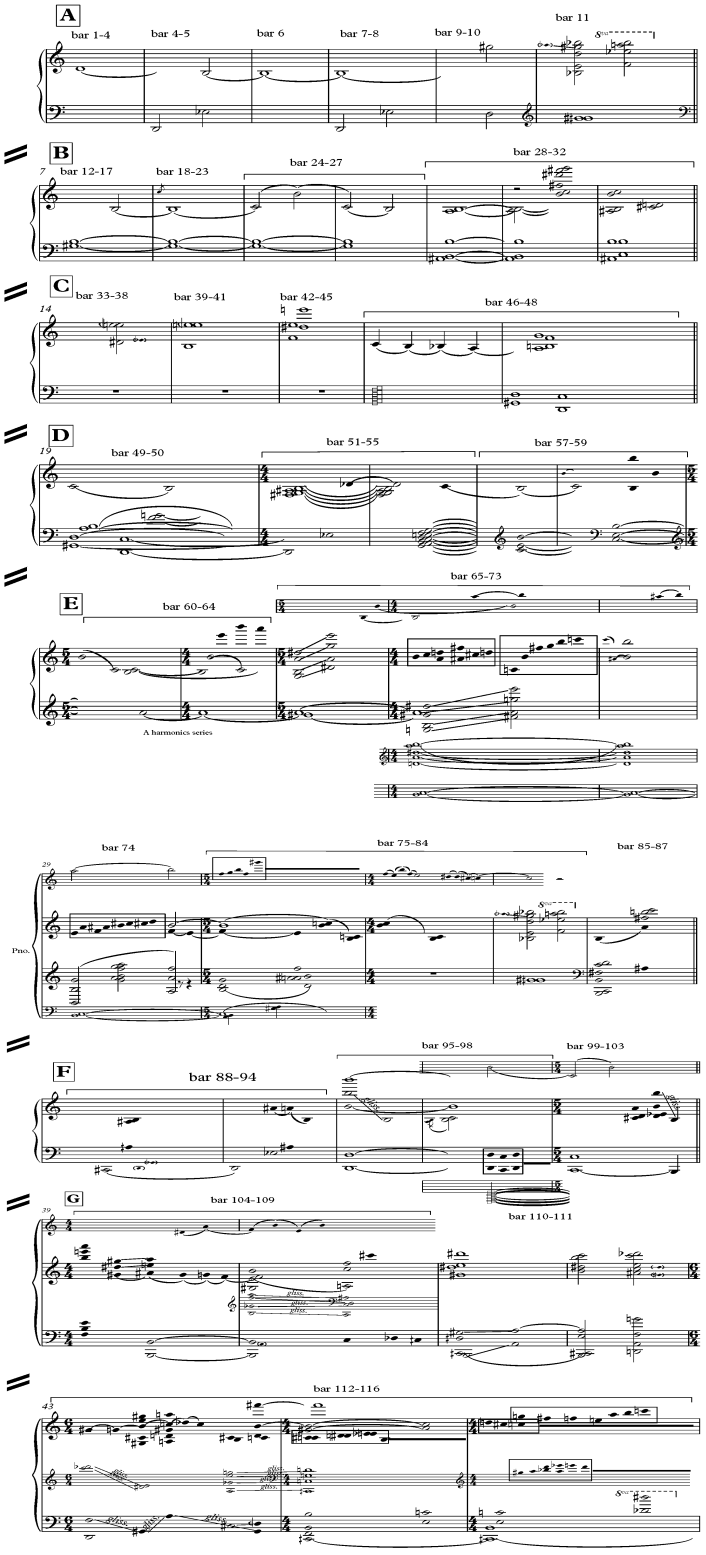


Fig.45: Harmonic sketch in *Echoes of Mountains*

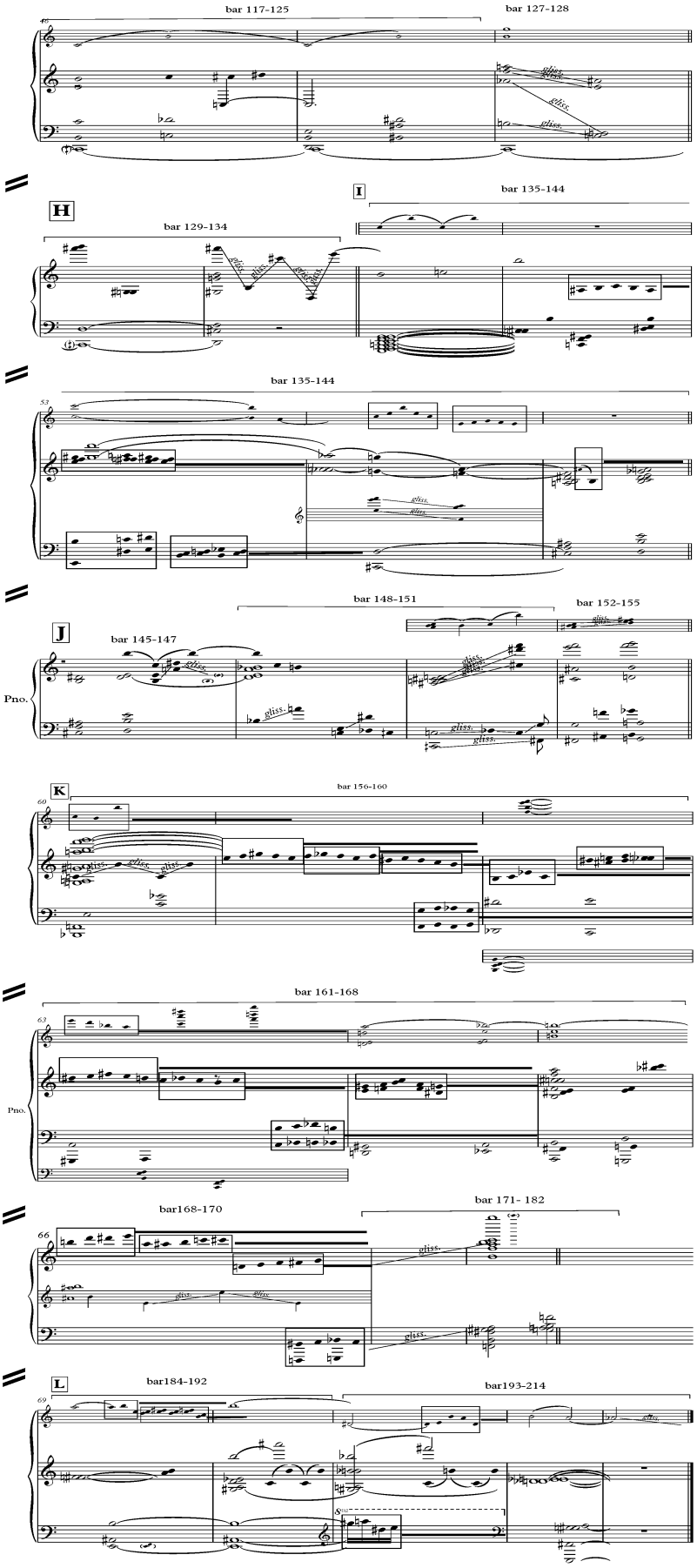


Fig.45: Harmonic sketch in *Echoes of Mountains*

| Part I 2'46" | | | | Part II 6'40" | | | | Part III 8'48" | | | | Part IV 12' |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Phrase-based sections** | **A** | **B** | **C** | **D** | **E** | **F** | **G** | **H** | **I** | **J** | **K** | **L** |
| **Bar** | 1-11 | 12-32 | 33-49 | 50-59 | 60-87 | 88-103 | 104-128 | 129-134 | 135-144 | 145-155 | 156-183 | 184-214 |
| **Duration** | 34" | 45" | 48" | 39" | 112" | 46" | 76" | 23" | 25" | 32" | 68" | 78" |
| **Tempo** | ♩=60, accel. rit. | A tempo/♩=60, accel. rit. | ♩=60 | ♩=60 | ♩=50, accel,rit. | ♩=72 | Più mosso | ♩=60 | ♩=76,accel. A tempo. | ♩=76 | ♩=76, accel. rit. | ♩=60 |
| **Main dynamic process** | *ppp ff* | *pp ff ppp* | *pp mf pp* | *mf f* | *sf mf f ppp ff p* | *p f pp* | *mp f mp ff pp f ppp* | *pp ff* | *f ff p ff f* | *pp mf mp f ppp* | *mp ff f ff fff pp* | *mp ff pp mf pp ff ppp* |
| **Solo Flute (Alto)** | Alto Flute | | | Flute | | Change to Alto Flute | | Change to Flute | Flute | | | Change to Alto Flute |

Table 7: *Echoes of Mountains*, formal overview

# Conclusion

Developing the *declaiming* idea, set out in Chapter 1, is considered as the initial compositional impetus for my PhD research. This concept, explored initially as a musical idea and which developed into a compositional technique, forms the basis of my musical language. During these four years of research, I have explored how the linguistic behaviour of *declaiming* works into my music relates to considerations of musical time.

I have experimented with how the pitch trajectory of Chinese intonations can be extracted into musical lines, as in *Still Night* and *The taste of early spring*. In my last piece, *Echoes of Mountains*, I explored the *declaiming effects* through the contrast implied in its philosophy, such as the manipulation of sound transitioning between noise and pure sound. In the course of my research, I built my harmonic languages by extracting Chinese intonations and could control the static quality of sound through manipulation of their timbre and density.

At the end of this journey, I was rather surprised by the result of my research, since the *declaiming* idea now permeates my music entirely and distinguishes my musical language well. In future, I will explore the idea of constructing the phrase-based structure further by balancing phrase and silence durations that I have not yet explored in my research.

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