Portfolio of Compositions

Cheong Li

PhD Thesis

Music

September 2013

Abstract

This portfolio includes pieces for ensemble, solo instrument, voice and choir as well as electroacoustic music, which are products of research into various aspects and degrees of freedom and control within a composition. Through collaboration with performers from different backgrounds, the pieces explore elements of improvisation by means of a variety of methods: graphic and conventional notation, written and verbal instructions, choice of materials within a given framework, or freedom of structure with given materials. Music from different cultural backgrounds is discussed in this commentary, outlining how these influences may hint at different ways of approaching freedom and control in music.

Table of Contents

List of Submitted Pieces

Vol.	Title (year)	Instrumentation
1.	Portfolio of Compositions (Commentary)	
2.	*Ripples* (2010)	guitar
3.	*Senza Misura* (2010)	xylosynth, percussion and live electronics
4.	*Impromptu I* (2010)	piano
5.	*Impromptu II* (2011)	alto flute and live electronics
6.	*Impromptu III* (2011)	woodwinds and keyboards
7.	*Impromptu IV* (2013)	chamber ensemble
8.	*Alone With the Moon and the Shadow* (2012)	vocal trio

9.	*Impermanence* (2012-13)
	  i. *Ivit, Ivit*
	  ii. *Village Song*
	  iii. *Impermanence*
		vocal ensemble

10.	*Playground* (2011-12)	electroacoustic sound installation
(DVD)	*Shadows in the Water II* (2012)	voice and live electronics

(DVD)	Two Dance Pieces
	  i. When the Structure Softens (2009)
	  ii. I'm Going to Play a Game (2012)
		
		erhu
		voice, body sounds and live electronics

Appendix

11.	A. *Five Bagatelles* (2009-10)	string quartet
12.	B. *Responses* (2011)	dizi duet and Chinese ensemble strings and jazz ensemble
13.	C. *Schönbop* (2011)	jazz ensemble
14.	D. *Nothing Left is Right* (2013)	

List of Submitted Audio Visual Contents

Audio CD

Track	Title	Duration
1	*Ripples* Stefan Östersjö, classical guitar	6:03
2	*Senza Misura* Joby Burgess, xylosynth and percussion; Cheong Li, live electronics	5:56
3	*Impromptu I* Cheong Li, piano	7:25
4	*Impromptu II* Christian Färnqvist, alto flute; Cheong Li, live electronics	5:21
5	*Impromptu III* Sarah Morpurgo, flute; Emily Worthington, clarinet; Azlee Babar, vibraphone; Stephanie Conner, piano	2:54
6	*Impermance* – i. *'Ivit, Ivit'* The 24	5:12
7	*Shadows in the Water* II James Cave, voice; Cheong Li, live electronics (this version is performed in Chimera Summer Concert, June 2012; a studio-recorded version can be found on DVD)	9:07
8	*Alone With the Moon and the Shadow* Juice (Anna Snow, Sarah Dacey and Kerry Andrew) (recorded in final rehearsal; the video of the workshop is on the DVD)	4:04
9	*Five Bagatelles for String Quartet* Kreutzer Quartet	9:28
10	*Responses* Chan Chi-Chun, Chan Chi-Yuk (dizi duet) and their ensemble	6:15
11	*Schönbop* Threads Orchestra	4:22
12	*Nothing Left is Right* Julian Argüelles Octet	5:37

DVD

Chapter	Title	Duration
1	*Shadows in the Water II* James Cave, voice; Cheong Li, live electronics (music video)	9:07
2	*Alone With the Moon and the Shadow* Juice (Anna Snow, Sarah Dacey, Kerry Andrew) (video recording of the workshop)	3:50
3	*Playground* demonstration and video excerpts from the exhibition of the sound installation	3:04
5	*When the Structure Softens* *Rachel Birch, Alex Barber and Debora Renzi, dancers;* *Anthony Middleton, choreographer;* *Cheong Li, erhu and tape*	5:24
6	*I'm Going to Play a Game* *Kinga Jaczewski, dancer; Gemma Harrison, choreographer; Cheong Li,* *live electronics*	3:12

Data CD

- PDF files of the commentary and all scores:

  Ripples, Senza Misura, Impromptus I – IV, Alone With the Moon and the Shadow,

  Impermance, Five Bagatelles, Responses, Nothing Left is Right, Playground

- MP3 version of all sound recordings
- MP4 version of all videos
- Max/MSP/Jitter patch I created for *Playground*

Illustration Index

Index of Tables

Acknowledgements

Author's Declaration

I declare that this dissertation is my own, unaided work. It is being submitted for the degree of PhD at the University of York. This writing has not been presented elsewhere or used for other purposes.

Cheong Li

Introduction: Between Freedom and Control

During my study at York, I have met musicians from very different backgrounds. It has been a valuable experience which broadened my musical horizons considerably. Besides contemporary music, I am equally fascinated by jazz and folk music around the world. In this portfolio, I am presenting pieces I have written for solo instrument, ensemble, choir and voices, pieces with electroacoustic content, two pieces for jazz ensemble and a piece for Chinese music ensemble. Although my musical style has changed and evolved, I have found the concept of freedom and control has always been central to my work, and this has emerged as the main subject of my research. A score is a tool for communication that gives the composer control over the result, and yet it also provides the basis for the performer to elaborate, from the dynamics of a note to free improvisation. While some of my pieces are more written out, others are more 'sketchy', leaving room for input from performers. Many of my pieces result from collaboration with different performers.

I play the piano and *erhu*, a Chinese bowed string instrument. Learning *erhu* opened the gates to a treasury of folk music, in which improvisation is based on an understanding of traditional musical style. By learning the *erhu* repertoire, I got to know the ornamentation and improvisation style that is unique to Chinese music. I initially studied the piano in the classical music tradition and only in the past few years started to learn jazz piano. Although I am still an amateur in jazz, this hands-on experience expanded my understanding of improvisation. I started to question why I should write out everything and control every detail in the score. Studying electroacoustic music provided yet another dimension of possibility, that live electronics can respond to the music and stimulate the musician to react in return. Influenced by these various sources, I set out to find a path that links the different traditions, and possibly to develop my own way of reconciling composition and improvisation.

The boundary between composition and improvisation is not always clear-cut. According to Sabine Feisst[1], our perception of improvisation has changed over the years. In

---

[1] Feisst, 'Losing Control'.

the 1980 edition of *The New Grove Dictionary of Music*, improvisation is 'music put together without forethought', while in the current edition of *The New Grove Dictionary of Music*, improvisation is 'the creation of a musical work, or the final form of a musical work, as it is being performed. It may involve the work's immediate composition by its performers, or the elaboration or adjustment of an existing framework, or anything in between. To some extent every performance involves elements of improvisation, although its degree varies according to period and place, and to some extent every improvisation rests on a series of conventions or implicit rules.'[2] This shows that recent studies tend to believe there is no clear-cut distinction between composition, improvisation and performance, but a spectrum of various degrees of freedom and control.

One might think that John Cage, a pioneer of chance music, would also be an advocate of improvisation. However, he once voiced his opposition to improvisation strongly, saying, 'Improvisation is something that I want to avoid. Most people who improvise slip back into their likes and dislikes and their memory, and… they don't arrive at any revelation that they are unaware of.'[3] He reminds us that improvisation does not guarantee a result that sounds new and fresh. This is exactly the point where a composer can contribute. While the performer may know the instrument much better than the composer, the composer's input stimulates the performer to try out something he or she might not have thought of.

In the latter half of the twentieth century, while some composers liked to write out as much detail as possible, other composers rediscovered improvisation and indeterminacy, giving performers much greater freedom. Many different approaches have been explored, including chance music that embraces chance operations in the process of music making, indeterminate or aleatoric music that allows performer freedom within some given instructions, open-form music that allows the performer to decide the order of the parts, and experimental music that regards trial and error as part of the music making. Instead of a fully written-out score, many composers have experimented with graphic notation and

---

[2] Nettl et al, 'Improvisation'.

[3] Turner, 'John Cage's Practical Utopias', 472.

verbal instruction as a way to convey their musical ideas. In the past century we have witnessed not just a constant challenging of the notion of what is a score, but also a questioning of what the relationship between composer and performer should be.

In this commentary, I discuss my pieces from four perspectives:

1. Folk, Jazz and New Music's approaches to freedom and control, and their influences on my music

2. How I used notation and verbal instructions in my scores to explore different ways of improvisation

3. About collaboration with performer and how pieces are developed through working together

4. About how dance and body movement interact with music

The first chapter describes folk, jazz and new music's influences on me, and pieces I have written as a direct response. In these pieces I have not yet found my own voice but I have included them here in the appendix as an indication of my major influences. *Five Bagatelles for string quartet* is a set of pieces influenced by music of Webern and Kurtag, as well as some instrumental techniques and gestures I learned from traditional Chinese music. *Responses* is a piece for dizi (Chinese flute) duet and ensemble. Although it is fully notated, part of the interpretation rests on the assumption that the musicians are experienced in traditional Chinese music and will embellish the melodies without indication. *Schönbop* is a piece written for the Threads Orchestra, a group of musicians from both classical and jazz backgrounds. It is a direct response to jazz music, and in this piece, I have also tried to find a way that string players can join in the improvisation. *Nothing Left is Right* was workshopped by the Julian Argüelles Octet. In this piece I tried to involve elements of free improvisation that are not in the familiar jazz idiom.

The second chapter is about the search for a better way of notation as a medium for conveying musical ideas. *Ripples* for classical guitar is notated in detail; however, time signatures are avoided, which gives the performer some control over interpretation. *Senza Misura* is the first piece I wrote for solo performer with live electronics. The score provides only the materials for improvisation and leaves the structure open. The series of *Impromptus*

are individual pieces that experiment with giving performers more control, whether it is through graphic notation, boxed notation or written instructions. *Impermanence,* a vocal ensemble piece based on Buddhist and Christian texts, also reflects musical influences from two traditions. While the first movement *Ivit, Ivit,* and the last movement, *Impermanence,* are mostly written out, the second movement, *Village Song,* contains an improvised section that allows the conductor to decide which parts should enter or fade out and in which order.

The third chapter is about collaboration with performers. *Impromptu II* was developed through collaboration with flautists Rachel Beetz and Christian Färnqvist, who improvised with the alto flute part provided in the score, while *Shadows in the Water II* was jointly created by James Cave (countertenor) and me without any notated score. James improvised vocally with his voice while I responded with live electronics. I also give examples from other pieces to show how collaboration becomes an essential part of the composition process. *Alone with the Moon and the Shadow* is a piece written for *Juice*, in which the score only provides a framework for improvisation rather than a final product, while most of the musical ideas are expressed through written and oral instructions.

The fourth chapter is about how body movement and music come together. I have created two short pieces in collaboration with dancers from the Northern School of Contemporary Dance in Leeds. In *When the Structure Softens*, I participated as an *erhu* player, interacting with the dancers' movement. In *I'm Going to Play a Game*, based on John Cage's *Song Books*, I used the dancer's voice and sounds from her body movement as a source of sound samples to be processed by live electronics. Lastly, I discuss my electroacoustic installation, *Playground,* in which body movements are tracked by a webcam that triggers sound samples. This was an experiment into how sounds and movement can be related and how every person can participate in the process of music making.

Chapter 1

Folk, Jazz and New Music's approaches to Freedom and Control

1.1   Tablature and Prescriptive Notation

Folk and traditional music from around the world has inspired me greatly with regard to improvisation. The notation for the *guqin*, a Chinese seven-string zither, uses a kind of tablature which is a prescriptive score that provides only the fingering rather than the pitch.[4]

Fig. 1 – A typical *guqin* tablature instruction

Sometimes there are instructions about sliding or vibrato, but more often these are left for the performer to determine. There are a lot of performing techniques and timbral nuances that one can only learn from a teacher rather than from the score. Sometimes a symbol represents a pattern of notes rather than just one single note. There is no indication of rhythm in the most ancient surviving scores,[5] while in some later scores there are sections of music which have no regular pulse (similar to *senza misura*) and sections which have a regular pulse indicated by punctuation marks such as 。 for the accented beats and 、for the other beats. Performers can distribute the notes within a beat in any rhythm they like.

---

[4] Lam, 'Analyses and Interpretations of Chinese Seven-string Zither Music', 363

[5] An example is *Jieshidiao Youlan* (碣石調幽蘭; "Elegant Orchid in the Stone Tablet Mode"). Written during the 6th or 7th century, this is the earliest surviving *guqin* score. It contains lengthy description of fingering and plucking techniques on each note but no description of rhythm. Its manuscript is preserved in Tokyo National Museum, accessible online: <http://www.emuseum.jp/detail/100229/000/000?>

Below is an example of the *guqin* piece *Dun Shi Cao* (Hiding from the World) in a transcription by the scholar John Thompson. He studied *guqin* in Taiwan for many years and is active in introducing the *guqin* to the world. A sound recording of this excerpt can be found on his website.[6]

Fig. 2 – The first page of *Dun Shi Cao* (Hiding from the World) as transcribed by John Thompson, from 'Dun Shi Cao', *John Thompson on the Guqin Silk String Zither*, ed. John Thompson.

What interests me is that there are minor discrepancies between the transcription of the score and his sound recording, in which he is flexible rhythmically. If we compare the

---

[6] Thompson, 'Dun Shi Cao', *John Thompson on the Guqin Silk String Zither.*

sound recordings of the same piece by other *guqin* players, we discover even more discrepancies in rhythm and expression. *Guqin* tablature has inspired me some of my ideas about improvisation:

Firstly, a score can be a set of prescriptive instructions that indicate the method of producing sound rather than the resultant pitch. To a certain extent, in my pieces like *Alone With the Moon and the Shadow*, I have tried to provide prescriptive instructions of what I would like the *Juice* vocal trio to try out, and that allows much more involvement from the performers.

Secondly, from *guqin* tablature, I found that when rhythm is left for the performer to decide, it actually allows much more flexibility and irregularity that, if notated precisely, would require a highly complex score. However, a detailed score would not allow a different interpretation every time. This matches the principle behind graphic scores or time-space notation in contemporary music. Many oriental composers, including Toru Takemitsu and Chen Qigang, are certainly aware of this flexibility of rhythm in traditional Asian music and have applied this principle in their scores. In my pieces *Senza Misura*, *Impromptu II* and *Ripples*, I tried to use no time signature or barlines, while different noteheads only indicate approximate length. When rhythmic precision is not necessary, flexibility of rhythm also allows a natural flow of notes, which often makes it easier for the performer to feel the phrasing and breathing.

1.2 Embellishment of a Melody

Interaction among players is an integral part of improvisation in folk music ensembles. According to ethnomusicologist Lawrence Witzleben, in traditional Chinese ensembles like *Jiangnan Sizhu*[7], 'each musician plays the melody somewhat differently from every other

---

[7] *Jiangnan Sizhu* (江南絲竹) literally means "Silk and Bamboo Music from the Yangtze Delta Region", is a kind of ensemble consists of chinese flutes, plucked-strings and bowed-strings. It is traditionally played in a casual

musician, and all my teachers believe that an individual should vary his playing with each rendition of a piece. In the words of one, "improvised ornamentation is re-composition". The performer is a creative participant in this music, challenging himself to constantly bring fresh ideas and feelings into a familiar piece.'

Below is a transcription of a song called 'Lin Wan Kau' from traditional Cantonese opera.[8] Traditionally, Cantonese Opera is written in *gongche* notation, a solfège system that indicates the pitch names in a scale. The following is a transcription of the song on five-line staves, while the original *gongche* notation is provided just below the staff (the words in a thinner font), and the lyrics are provided at the bottom (the words in bold). A video of this piece[9] shows how each performer embellishes the melody in different ways: some performers, sparingly, play only some of the notes, while others add a lot of passing notes and ornaments. No one is playing the melody in exactly the same way.

Fig. 3 – *Lin Wan Kau* (Chains of Rings), traditional Cantonese music, from *A Learning and Teaching Package on Cantonese Opera* (粵劇合士上), edited by Hong Kong Education Department.

---

setting, where musicians would sit around a table and play together. See Witzleben, 'Jiangnan Sizhu Music Clubs in Shanghai', 240-241.

[8] The transcribed score is published in *A Learning and Teaching Package on Cantonese Opera* (粵劇合士上), ed. Hong Kong Education Department.

[9] Lok-Ting Wong. '廣東音樂五架頭《連環扣》' (Cantonese Music 'Lin Wan Kau' Played On Five Instruments).

The folk ensemble tradition shows another possibility in improvisation, that an ensemble playing the same melody together with different embellishments can create an interesting heterophonic texture. It is not just a single line, nor is it a real polyphony, but something in between. Benjamin Britten is one of the composers who has explored this idea in the west. His *Curlew River* is clearly influenced by Noh theatre, in which the instruments are often playing the same melody but their rhythms are not quite aligned in time. Although the size of the ensemble is not small, he deliberately avoided using a conductor in the original production.[10] This actually allows more ambiguity in rhythm and aligns with the aesthetics of Oriental music theatre.

In the improvisation section of 'Village Song', the second movement of *Impermanence*, each voice part is given similar raw materials in boxed notation. The singers can sing the given materials at different speeds, and they are encouraged to add their own ornaments and embellishments, resulting in a heterophonic texture.

1.3   Onomatopoeia As Notation

Rather than using symbols and noteheads to notate percussion music, in some folk traditions, syllables or phonetics that mimic the sound of percussion are used to memorize and transcribe rhythm. Indian tabla notation is one example in which syllables like *ta, ghe, tin, dha* are used to describe sounds to be produced on the tablas by means of different hand shape and position. There is also a similar type of percussion notation in Chinese operatic music. *Luogujing* (鑼鼓經), literally 'a Scripture of Gongs and Drums', is a kind of verbal description of the combined sound effect, rather than a prescription for which percussion instruments should be used.[11] When percussionists learn this kind of music, they familiarise themselves with which percussion instruments are needed to produce the

---

[10] It has become usual, now, to see the piece conducted.

[11] Han & Campbell, *The Lion's Roar,* 10.

combined sound that each word represents. In essence, all the words are only onomatopoeia describing the intended sounds.

Here is an example of a rhythmic pattern called *Xijitao* (四擊頭; literally 'four hitting strokes'), common in both Beijing Opera and Cantonese Opera.

打台｜倉 一｜倉 台台｜倉大 才台｜倉 0｜

Fig. 4 – *Xijitao*, a rhythmic pattern that contains four strokes of "Chang"

Here is an explanation of the words used in the notation:

Chinese	Pronunciation	How performers usually interpret it
倉	Chang	big gong, small cymbals, small gong
才	Che	small cymbals, small gong
台	Dei	small gong, played loudly
大	Da	drum, right mallet, strong
打	De (sometimes pronunced like 'Drrr' to mimic a drum roll)	drum, fast iterations with both mallets

Table 1 – Onomatopoeic words used in Luogujing that indicate the sounds of a percussion ensemble

This kind of notation is not intended for sight-reading. It is a way to help performers to memorize rhythmic patterns. A group of syllables are memorized like vocabularies and passed on from generation to generation by oral tradition, until eventually someone writes them down as scores. In the libretto of Peking Opera or Cantonese Opera, usually only the names of the rhythmic patterns are given before a verse. By learning hundreds of 'vocabularies' by heart, percussionists could play an evening of music out of these existing materials. Usually the lead percussionist (*zhangban*) who plays the drum (*bangu*) also acts as the conductor of the percussion group, indicating which pattern is to be played in a certain tempo by an upbeat gesture of his sticks. This shows another possibility for improvisation. Rather than providing the pitch or the method for how to produce the sound, this

prescriptive notation only describes the sound intended, while performers are given liberty to decide how to produce the sound.

In the beginning of 'Village Song', the second movement of *Impermanence*, I let the singers sing these onomatopoeic syllables, in a way similar to beat-boxing. In my piece *Alone with the Moon and the Shadow*, I also provided a 'prescriptive notation', in which the score provided is only a sample of how the piece I imagine to sound, together with instructions that provide the framework for improvisation rather than the actual score.

1.4   Jazz and Indian Raga – Improvisation On a Scale and Beyond

While improvisation over chords is prevalent in early jazz, contemporary jazz music often stretches these limitations. It all began with modal jazz, when musicians started to explore improvisation with less-frequent chord changes. For example, in John Coltrane's 'My Favorite Things', the group improvises for a long period of time over a vamp consisting of only two chords, E11 and C#m7/E, that actually frees the performer from functional harmony. Sometimes Coltrane and his quartet play things well beyond any mode based on E. They took even more liberties with respect to the solo section and turned it into a group improvisation.[12]

In two of my pieces for jazz ensemble, *Schönbop* and *Nothing Left is Right*, I have tried to explore possibilities beyond chords and scales. In *Schönbop*, I let the string players improvise in a way less related to chords. In *Nothing Left is Right*, I deliberately avoided chord symbols in the introduction and the group solo section. It is interesting that when chord symbols were avoided, musicians took the initiative to go beyond tonality and experiment with timbre.

In *Impromptu I* for piano, at some moments I indicate scales or notes for the performer to improvise on, within a certain period of time. However, this approach has its limitation:

---

[12] Anderson, 'John Coltrane, Avant Garde Jazz'

the musician can only 'fill in the blanks' in this case. The scope of improvisation is bounded by the composers' intention, in terms of choice of pitches and time limit. It is as though the cake is always the same, only the icing on top is different. Thus, in other pieces, I also tried the other extreme, using open form and relying more on verbal instructions than musical notation.

Northern Indian music interests me in the way they treat a scale. In some ragas, notes are sharpened when ascending or flattened when descending, similar to melodic minor in this aspect. Moreover, the concept of raga goes beyond the idea of a scale, as different ragas may suggest different 'colours' and ways of rendering each note.[13] In my *Impromptu II*, although it sounds sometimes atonal, F is clearly the pitch centre. The music starts by exploring vibrato and timbral changes on F, and then it moves further away from this tonal centre, returning to it at the end, which somehow resembles *alap,* the introduction section of Indian raga improvisation.

1.5   Four Pieces in the Appendix

In the following passage, I will discuss the pieces that are direct responses to my musical influences. In these pieces I was writing for specific groups of performers and I tried to accommodate the styles that suited them most. In retrospect I would wish to have been more experimental in musical language, but I did learn from these experiences and I have included them in the appendix as a reference.

1.5.1 *Five Bagatelles* for String Quartet

Written in 2009-2010
First movement was performed in a workshop by the Kreutzer Quartet in Dec 2009
Second to fifth movements were performed in a workshop by the Kreutzer Quartet in Mar 2011
at Sir Jack Lyons Concert Hall, University of York
Approx. duration: 9 mins

The *Five Bagatelles* are among the first pieces I wrote during my study in York. The five

---

[13] Bailey, 'Indian music (1)' in *Improvisation: Its Nature and Practice in Music,* 7.

movements are unified by a common motif, set 4-9 [0,1,6,7][14], consisting of a symmetrical pair of semitones and tritones. Besides exploring extended string techniques, the first and the last movement are partly inspired by folk music, with elements such as grace notes with a large leap, and the type of *glissando* with extreme *vibrato* that is common in traditional Chinese music. The second and fourth movements are slow chorale-like movements, while in the middle of these two movements is a scherzo that provides a contrast to the chorale movements.

Both the second and fourth movements are based on two pairs of interlocking intervals. Each pair consists of two notes a diminished fifth or a major seventh apart. However, as each part arrives at a new pitch at a different moment, the harmony sometimes deviates from the pitch class [0,1,6,7] and returns to it only at certain points (see fig. 5). This is the basis of the harmonic language of the whole piece.

Fig. 5 – The use of interlocking pairs of diminished fifth and major seventh
in *Five Bagatelles,* 2nd movement

Generally in the string quartet I was following the style of the Second Viennese School. In the score, with the details written out, I had not yet started exploring the possibilities of improvisation.

There are a few discrepancies between the score and the sound recordings. The workshop by the Kreutzer Quartet provided me with valuable advice and I later revised the

---

[14] For explanation of set theory, see Forte, *The Structure of Atonal Music.*

score accordingly, mainly with respect to the use of extended techniques and details of notation.

1.5.2 *Responses* for dizi duet and Chinese ensemble

Written in 2011
Instrumentation: *dizi* 1 & 2, *sheng, zheng, pipa, zhongruan, percussion, erhu, zhonghu*
Premièred by Chan Chi-Chun and Chan Chi-Yuk and their ensemble at Hong Kong City Hall Theatre in March 2011, commissioned and presented by Hong Kong Arts Festival
Approx. duration: 6 mins

Responses is a piece commissioned by the Hong Kong Arts Festival that I wrote for Chan Chi-Chun and Chan Chi-Yuk, a pair of twin brothers who are both excellent players of *dizi* (Chinese transverse flute). The music is basically tonal, but here I tried to explore poly-tonality. The two *dizi* are in the key of D and F respectively. Sometimes they play in the same key, while at other moments they depart from each other. *Zheng* (a 21-string zither), is normally tuned to a pentatonic scale in its traditional setting. In this piece, the instrument is tuned to a different pentatonic scale in each octave, in the key of D, B, Ab and F respectively. Because the keys are minor thirds apart, it gives an overall octatonic quality (see fig. 6). Sometimes the *zheng* player is also asked to play on the 'wrong' side of the bridge, which produces a sound dissonant to the rest of the group.

Fig. 6 – Tuning of Zheng Strings in polytonality

The piece starts with a slow introduction and gradually becomes more rhythmic until it reaches a climax. The two *dizi* imitate each other like a call and response, while the ensemble serves as an atmospheric background in the beginning and later plays more vigorously, reinforcing the accented beats. Additive rhythm is used in the middle of the piece, where the metre increases and decreases like an arc shape: 1, 2, 3, 4, 5, 4, 3, 2, 1. This rhythmic pattern is not new to Chinese music, but it is more often used in percussion music than music for *dizi*. See fig. 7 for the rhythmic pattern *Jinganlan* (金橄欖) that is common in *Luogujing* percussion scores.

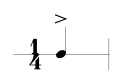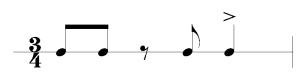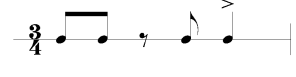Fig. 7 – *Jinganlan*, a rhythmic pattern of 1, 2, 3, 4, 3, 2, 1

This piece is written very much in the style of traditional Chinese music, although I tried to expand the language a little bit further. This suits the players very well and was well received in the performance.

1.5.3 *Schönbop* for the Threads Orchestra

Written in 2011
Instrumentation: violin, viola, cello, guitar, piano, bass, drums
Performed in a workshop by the Threads Orchestra in the Rymer Auditorium,
University of York, June 2011
Approx. duration: 4-5 mins

This piece was workshopped by *the Threads Orchestra* in June 2011. *The Threads Orchestra* is a group consisting of musicians from both jazz background (pianist, guitarist, bass and drums) and classical music background (violinist, violist and cellist). Thus I tried to write a piece that tried to include elements from both genres. A question that always stays in my mind is whether one could allow classical musicians, with relatively less experience in improvisation, to improvise easily. The piece starts with a theme using all twelve tones, although I do not follow the conventional techniques of twelve-tone once the theme is stated. Then it is followed by a passage in bebop style with walking bass, and thus I named the piece *Schönbop*. In the middle section, I let the three string players play *glissandi* with no specific pitches given (see fig. 8). Which exact pitches to play is not the most important point here. What is important is that the passage sounds like 'scratching a turntable'. This is not a difficult task for the string players and they enjoyed playing with the noise.

Fig. 8 – Excerpts from *Schönbop* (bars 61 to 65)

1.5.4 *Nothing Left is Right* for the Julian Argüelles Octet

Instrumentation: soprano/tenor saxophone, tenor saxophone, trumpet, trombone, guitar,
            piano, bass, drums
Performed in a workshop by Julian Argüelles Octet in the Rymer Auditorium, University of York
in June 2013
Approx. duration: 5-6 mins

Nothing Left is Right is a piece I wrote for a workshop by the Julian Argüelles Octet. As Julian and his group are experienced in modern jazz and have premiered many new pieces, I

gave them even more freedom in the score. The piece starts with a slow atmospheric introduction, followed by a theme in a slow, waltz-like rhythm. In the middle of the piece I introduced a groove that accelerates until it arrives at a much faster tempo.

While the theme and the solos are pretty much standard jazz procedures, I let the group improvise freely in the introduction and the ending. At these moments, I deliberately avoided giving any chord symbols and thus hint at an atonal result. Towards the ending, musicians increasingly depart from the notated materials to join in the free improvisation, making the group improvisation sound more and more chaotic and arriving at a climax at the end (see fig. 9). The name of this piece comes from a pun I read on the internet, 'There Is Nothing Right In My Left Brain, and Nothing Left In My Right Brain'[15] and I use the phrase here in reference to the chaotic ending.

Fig. 9 – Towards the end of *Nothing Left is Right*,
the horns join in the free improvisation one by one (bars 76-77, 84-85)

---

[15] 'There is Nothing Right in My Left Brain, and Nothing Left in My Right Brain' (Facebook Page)
<https://www.facebook.com/pages/There-Is-Nothing-Right-In-My-Left-Brain-And-Nothing-Left-In-My-Right-Brain/>

The harmony of the piece is basically a chord which keeps the same voicing and moves up and down in parallel motion while the bass holds a pedal note of E. As the chord goes up and down, it becomes more or less dissonant in relation to the bass note (see fig. 10).

Fig. 10 – Parallel chords on top of a pedal note in *Nothing Left is Right* (bars 18-25)

The above-mentioned pieces are my direct responses to music that influenced me, in which I also adapt myself to various musical styles to meet the need of different performers. In the next chapter I will discuss pieces in which I experiment more with the aspect of notation and improvisation.

Chapter 2

On notation and verbal instructions

In this chapter, I will discuss pieces that incorporate elements of improvisation, namely *Ripples, Senza Misura* and the *Impromptus*. In these pieces, the score is still the central component for communicating ideas, although verbal instructions and conversations with performers are equally important.

2.1 *Ripples* for classical guitar

Written in 2010
Performed in a workshop by Stefan Östersjö in the Rymer Auditorium, University of York, May 2010
Approx. duration: 6 mins

Ripples was performed in a workshop by Stefan Östersjö in May 2011. Most of the music is written out, yet I have left some moments for the guitarist to improvise. I was inspired by traditional *pipa* (pear-shaped Chinese lute) and *guqin* (seven-string Chinese zither) music, which often starts with an introduction without a regular pulse in harmonics or open-string notes. I picked the natural harmonics [G#, F#, G, C#] and [D#, C#, D, G] as the opening motifs, which sound atonal when played in a sequence (see fig. 11). Not unlike *Five Bagatelles*, minor seconds and diminished fifths are emphasized throughout this piece.
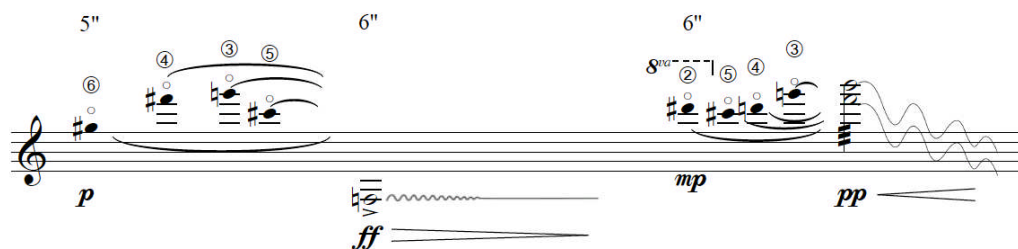
Fig. 11 – Opening motifs of *Ripples* for guitar

This piece is *senza misura* (without metre) throughout, giving the performer flexibility in time. Although I have indicated the approximate numbers of seconds on top of each phrase, they are merely estimations that should not be taken precisely. Breathing and a

natural sense of phrasing is important in this piece, just as the concept of *ma*[16] is important to Takemitsu's music, especially in his *November Steps* for *shakuhachi, biwa* and orchestra.

When Chinese *guqin* music is described in early treatises, words like *sheng* (the sound, the consonant) and *yun* (the vowel, the rhyme) are often used to describe the attack and decay of a sound.[17] How a plucked note is ornamented is considered as important as the plucking itself. Vibrato, trills, tapping or dampening the string after plucking adds colour to the sound as it slowly dissipates into silence.

I also borrowed 'extended' techniques from traditional *pipa* music. In 'Ambush from All Sides', one of the most well-known traditional *pipa* pieces, instrumental techniques like strumming while pressing the two strings towards each other are used to depict the sounds of weapons in a battle. I also used *rasgueado* (fast strumming strokes) and *tambora* (dampened strumming that emulate the sound of a snare drum) that are common in flamenco guitar. Berio also employed these techniques in his *Sequenza XI*.[18]

Fig. 12 –Cadenza-like passage in *Ripples* for classical guitar

Towards the end of the piece, I indicated a motivic pattern for the guitarist to improvise upon (see fig. 12). Fingers hammer-on and then pull-off the strings. The notes inside the box suggest a gesture that could be developed as a whole passage. Here improvisation acts like a *cadenza* that brings the piece to climax before it returns to silence.

---

[16] Ma (間 in Japanese) is often translated as "space", "gap" or "pause". The Chinese equivalent is kong (空), often translated as "emptiness", "voidness". See Reynolds & Takemitsu, 'A Jostled Silence', 28.

[17] Thompson, 'Historical view of guqin ornamentation', *John Thompson and the Silk String Guqin*. <http://www.silkqin.com/08anal/leftright.htm>

[18] Berio, *Sequenza XI*. Vienna: Universal Edition, 1988.

2.2 *Senza Misura* for xylosynth, percussion and live electronics

Written in 2010
Instrumentation: xylosynth, triangle, cowbell, two small thai gongs, suspended cymbal, sizzle cymbal on a timpani, live electronics
Performed in a workshop by Joby Burgess (percussion) and Cheong Li (live electronics) at Music Department, University of Birmingham in May 2010
Approx. duration: 5-6mins

This piece is the product of a three-day workshop given by Joby Burgess on percussion and Scott Wilson on electroacoustic music at the University of Birmingham. Joby Burgess plays a xylosynth, an electronic instrument that resembles a xylophone but outputs MIDI signals.[19] In the workshop, he also brought with him a timpani, two small Thai gongs and a few hand-held percussion instruments. I provided Joby with a handful of patterns to improvise on, while leaving the structure of the piece open. I used 'Sculpture' in Logic Pro, a physical modelling synth; with a tone colour that morphed over time, so that the xylosynth sounded metallic at one moment, but changed to a more wooden or glass-like sound at other moments. The lowest notes on the xylosynth were used to trigger Chinese drum and cymbal samples. At the same time Joby also played the Thai gongs and other percussion instruments, thus blurring the difference between acoustic and electroacoustic sounds. Metal beater, brushes and mallets were used to produce a variety of timbres. All the sounds were then looped and processed using a laptop, which acted as a response to the percussionist's improvisation.

Though it is just a framework, this score provided a useful starting point for my exploration of improvisation. *Impromptu II*, *Shadows in the Water* and *I'm Going to Play a Game* are more elaborate pieces I have written for a performer and live electronics.

---

[19] Detailed description of xylosynth can be found on its manufacturer's website. See Wernick Musical Instruments. 'Xylosynth by Wernick'. <http://www.wernick.net/>

2.3 *Impromptus*

Impromptus is a series of individual pieces in which improvisation is an integral element of the composition. In these pieces, I tried to explore different methods of notation, from a given structure with details left open for interpretation (*Impromptu I*) to an open form in which there is little except a series of notes and instructions for how to make use of the given materials (*Impromptu III*).

2.3.1 *Impromptu I* for piano

Written in 2010
Performed by Cheong Li at City Screen Basement, York 2011
Approx. duration: 7-8 mins

In *Impromptu I* for piano, different amounts of control and freedom are explored. While some passages are totally written out and should be followed more closely, sometimes only the scale, or only approximate pitches and/or rhythm, or just a graphical representation of the gestures, is given. The performer has the freedom to improvise and it is not necessary to follow all instructions completely.

There is no metre for the piece and the length of notes are approximate rather than in a strict time-space notation. The length of each phrase is indicated on top of the staff in seconds; however, the numbers are suggestions rather than durations to be adhered to rigorously.

At other moments, I have written patterns without indicating the exact pitch, showing phrases with a general shape or melodic contour. Box notation indicates the patterns should be learnt and improvised. At other moments, I use repeat signs to indicate patterns to be played as an ostinato. Sometimes I also indicate the scale I expect to be used in parenthesis. In this case, the performer is encouraged to practise the patterns beforehand until he has internalized the material and feels comfortable improvising with it. In general, a lot of the musical materials are in the octatonic scale, in which the major second and minor third are emphasized. There are moments where the right hand and left

hand play alternately on white keys and black keys, resulting in a more chromatic outcome (see fig. 13)

different noteheads represent approximate length of notes

short medium long

feathered beams represent change of speed

slow to fast   fast to slow

crossed noteheads represent arbitrary pitch, played in a pattern approximately shown by the notation (and the direction of arrow)

bracketed notes represent the scale to be improvised
boxed notes represent the approximate pattern to be improvised

repeat the pattern until the line ends

Fig. 13 – Performance directions of *Impromptu I*

The piece was first performed by me on the piano at City Screen Basement, York on 13 January 2011. In that performance, the music was played along with an animation "Bärenbraur" by Derek Roczen. Due to copyright restriction, only the music recording is included in the portfolio, and the music serves as a separate piece.

2.3.2 *Impromptu II* for alto flute and live electronics

Written in 2011
Premièred by Rachel Beetz (alto flute) and Cheong Li (live electronics) in the Auditorium, Maccagno, Italy; organized by SoundSCAPE Festival, July 2011
Sound recording by Christian Färnqvist (alto flute) and Cheong Li (live electronics) at Trevor Jones Recording Studio, Aug 2012
Approx. duration: 5-7 mins

Impromptu II for alto flute and live electronics gives the flautist certain freedoms to decide pitch, rhythm and timbre. Live electronics interact with the alto flute in many ways: by imitating and processing the flute sound, and by triggering sound that responds to the flautist's movement captured in a webcam. The piece was premiered by Rachel Beetz at

Maccagno, Italy, during the SoundSCAPE Festival in July 2011. Then I developed the piece and the newer version was performed and recorded by Christian Färnqvist at York in Aug 2012.

Fig. 14 – Excerpts from *Impromptu II*. A combination of traditional notation and graphic notation is used.

In this piece I further explore some ideas used in *Impromptu I* – patterns with approximate pitches and/or rhythm, or graphical representation of gestures. The flute part starts from a single note and ornaments around it. Breathy sounds, quasi-pizzicato, smorzato and various intensities of vibrato are explored which mimic the style of *shakuhachi* playing. The melody becomes more and more elaborate in the middle section. Near the end the flautist is given a moment for free improvisation. It has been great to work on the piece together with Christian Färnqvist for a long period of time. After Christian became familiar with the piece, it was not difficult for him to develop the improvisation to be coherent with the style of the piece. Improvisation encourages a performer's input and builds up the climax naturally. In one of the performances, Christian actually suggested that instead of following the order of the score, he might jump from one point to another (as he has almost memorized the score). This added a sense of freshness every time we played the piece.

The flautist's playing is picked up through two microphones. The sound signals are then processed by adding immediate sound effects (e.g. distortion and vibrato, sounding like a wah-wah mute), and by delaying and looping the materials. The materials can be transposed and layered to produce a cluster of sounds. Some sound effects are triggered only when the flautist plays at a volume louder than a certain threshold (by adding a 'gate'). A webcam was used to track the flautist's hand and head movements which then also trigger sound samples.

In the performances of the piece, I used Logic Mainstage (a Mac software for live music performance) and Korg Nanokontrol (a controller surface) for live sound. In Logic Mainstage, one can build a graphical user interface on screen to control every effect. However, any electronic musician could reproduce this piece even if he is not using the same equipment, provided that he has software or hardware that can perform the afore-mentioned tasks. Possible software includes Ableton Live or Max/MSP.

For the première of the piece, I created a template in Logic Mainstage to control two microphone inputs, a looper, three auxiliary channels for different effects, and a graphical user interface (GUI) that is easy to control with Korg Nanokontrol, see fig. 15.
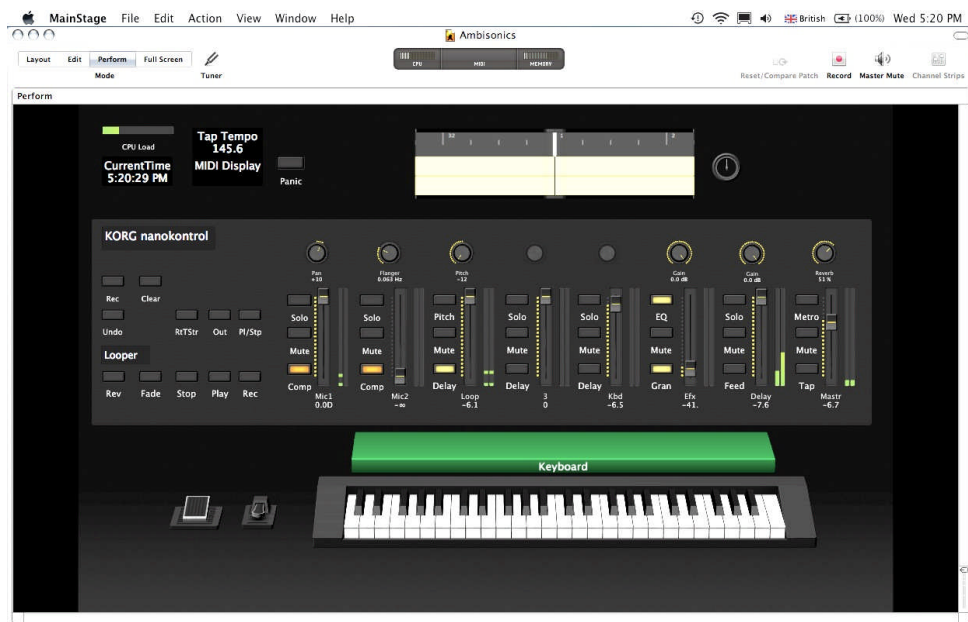

Fig. 15 – Creating a template in Logic Mainstage to control looping and audio effects efficiently

2.3.3 *Impromptu III* for woodwinds and keyboards

Written in 2011
Performed by Sarah Morpurgo (flute), Emily Worthington (clarinet), Azlee Babar (vibraphone) and
Stephanie Conner (piano) in Postgraduate Forum at the Sir Jack Lyons Concert Hall, York in Oct 2011
Approx. duration: 1 to 3 mins

Impromptu III is more like a framework for improvisation than a written out piece. There is no full score for this piece but only two parts. One part is given to all woodwinds - any two or more woodwind instruments, preferably some non-transposing (e.g. flute or oboe), and some transposing (clarinet in B-flat or A, alto flute in G, alto sax in E-flat, english horn in F, etc.); the other part is given to pitched percussion, such as vibraphone or marimba and/or keyboard instrument(s), such as piano or harpsichord.

The reason for choosing transposing instruments is that, although they are looking at the same part, they would actually be playing the 'tune' at an interval apart, creating the effect of organum when playing together at the same time, or transposed canon if they are playing a few seconds apart. The keyboard part shows chords or dyads to be played. These are subsets of the pentatonic scale, so even though the material as a whole uses all twelve tones, there are hints of tonality here and there.

This piece is inspired by Bruno Maderna's *Serenata per un satellite* in the way that materials can be played in any order or direction. Instrumentalists could decide whether the music is to be vigorous, calm, loud, or soft. There could be a conductor, but instrumentalists could take turns to lead or follow.

2.3.4 *Impromptu IV* for large ensemble

Written in 2013
Approx. duration: 10 mins

Impromptu IV is a piece for woodwinds, strings, piano and percussion that further develops the idea of using notation to facilitate improvisation. Like other pieces in the series, unbarred notation is used in the beginning to allow some freedom in rhythm. Graphic notation is used to represent gestures or vague ideas open for interpretation, while box notation indicates patterns to be improvised with. As this piece is written for a large ensemble, there is less room for individual solos. However, groups of instruments improvise collectively on patterns within a given range. I took this idea from Lutosławski's *Jeux vénitiens*,[20] in which each player's playing can be *ad libitum* but the overall texture is more or less predictable. In this piece, most instruments are in pairs. There are two flutes, two oboes and two clarinets that often play similar patterns in pairs forming a heterophonic texture.

A conductor is needed for this piece. Besides giving cues and directions, during the middle section he is actually the person who improvises. Here he can control which groups enter or exit first, and which groups are to be louder or softer. The conductor uses his left hand fingers to indicate patterns [1] to [4] and cue the performers to enter. John Zorn has experimented with this kind of conducted improvisation in his game piece *Cobra*[21]*,* which uses cards to indicate many different ways of interaction among performers. Jazz musician Butch Morris has also tried a similar kind of conducted free improvisation, which he calls 'conduction'.[22] I have adopted their ideas, but in terms of structure, this piece still always starts with the same introduction and ends in the same way.

---

[20] Lutosławski, *Jeux vénitiens.* Celle: Moeck Verlag, 1962.

[21] John Zorn's *Cobra*, written in 1984, remained unpublished, although it is often circulated among musicians, performed and recorded. John Zorn discussed about *Cobra* in an article "The Game Pieces", in Christopher Cox, Daniel Warner, *Audio Culture: Readings in Modern Music*, New York: Continuum, 2004, pp. p196f.

[22] See Butch Morris' website for more information. Morris, 'Lawrence D. "Butch" Morris – Conduction.us' <http://conduction.us>

In terms of harmony, the piece starts with a six-note motif, which forms the basis of a hexachord that is used throughout the piece.

2.4 *Impermanence*

Written in 2011-2013
for Chamber Choir (SSAATTBB)
The first movement was premièred by The 24 at the Sir Jack Lyons Concert Hall in Feb 2011
Approx. duration: 14 mins

Impermanence consists of three movements written for chamber choir, with text from both Buddhist and Christian origins. The first movement was performed by *The 24* in Feb 2011. The second and the third movements are later additions to the set, which I completed in 2013.

I. 'Ivit, ivit'

The first of the set is 'Ivit, ivit' which quotes texts with both Buddhist and Christian origins. The line 'Ivit, ivit, transivit, totum transivit, Illuminatio tum sit' is a Latin translation of the last line of *Heart Sutra*.[23] Originally in Sanskrit, the last line of this Buddhist sutra means 'Gone, gone, gone beyond, altogether beyond, then it is the other shore, the truth, the awakening, fulfilled.' I also picked the line 'In paradisum deducant te Angeli' from Catholic liturgy, which means 'may angels lead you into paradise.'[24] While Buddhism aims at enlightenment, a state of nirvana on the 'other shore', Christianity promises a paradise after life. It is interesting to find similarity between the two religions, and some scholars even believe that the two religions might have influenced each other since their early history.[25] Although I am not a believer in any religion, it is always my hope that there is mutual understanding between different cultures. Thus, I have chosen lines from the two different sources and set them to music with a hint of the styles of Christian hymn and Buddhist chant.

---

[23] 'Shorter Heart Sutra', *Wikisource*.

[24] Catholic Church, *Missale romanum*. S.l: s.n, 1962.

[25] Bentley, *Old World Encounters*, 240.

In the piece, I let the different voice parts overlap each other like a cluster, where the harmony departs and returns to tonality at different moments. At the beginning of the piece, each voice part repeats a pattern until a cue from the conductor, as if order has come into chaos. A soprano solo is featured in the middle, followed by a section where the male voices sing reiterated low notes like a Tibetan chant.

II. 'Village Song'

The second piece, *Village Song,* is written in a style similar to *San-ge* (山歌), a kind of folk song common in mountainous regions in Southwest and Northwest China. *San-ge* are usually sung by villagers as a way of communication among people at a long distance. Call and response is common in this kind of folk song. While the first piece is quite religious and meditative, the second is a secular response to the search for the meaning of life. The movement begins with onomatopoeic syllables that mimic the sound of percussion instruments. The tenor soloist improvises in a way similar to beat-boxing. After the introduction is followed by a quasi-canon of melodic lines, sometimes set in polytonality. Originally I set the music to meaningless syllables, but later I used the texts of the famous haiku by Japanese poet Matsuo Bashō. This haiku vividly depicts a frog who jumps in the pond and breaks the silence, which in a way reflects the immediacy of life. The song shares similar musical ideas with *Responses*, in which grace notes and other ornaments make it sound folk-ish, primitive and sometimes barbaric. Near the end of the piece, there is an improvisation section in which singers are given materials for improvisation. Similar to *Impromptu IV*, each voice group improvises on a micro-level, but the overall texture is predictable. Then the soprano singers repeat a certain line to signal the end of the improvisation section followed by a short coda that everyone joins in.

III. 'Impermanence'

The texts of 'Impermanence' are verses quoted from 'Story of the Faithful Mother Deer' and 'Sutra of King Surupa'[26]. The verses talk about how impermanent life is, that everything may change over time just as morning dew vanishes into vapour. This continues the previous two movements in a way that leaves a question mark over the meaning of our fragile existence. Similar thoughts can be found in *Ecclesiastes* in the Bible, 'Vanity of vanities; all is vanity. What profit hath a man of all his labour which he taketh under the sun?'[27] Although I only use Buddhist texts in this movement, musically, the setting of the text is more like a Christian hymn in a homophonic texture.

This piece is written in my mother tongue, Cantonese, as the verses were made popular by a Hong Kong novelist Louis Cha. Cantonese is a tonal language. For example, the same phonetic syllable [ji] can mean 'cure' (醫), 'chair' (椅), 'meaning' (意), 'son' (兒), 'ear' (耳), 'two' (二) in high-level, high-rising, mid-level, low-level, low-raising and low-falling tones respectively. [28]

On the next page is a diagram of pitch contours for six Cantonese tones:

---

[26] The text is also known as "Sutra on the Causes and Conditions of King Surupa" or, in its Mandarin Chinese transliterations, "Miàosè Wáng Yīnyúan Jīng" (妙色王因緣經). Surupa literally means well-formed, lovely or beautiful in Sanskrit.

[27] Eccles. 1: 2-3 KJV

[28] Francis et al, 'Perceptual learning of Cantonese lexical tones by tone and non-tone language speakers', 276.
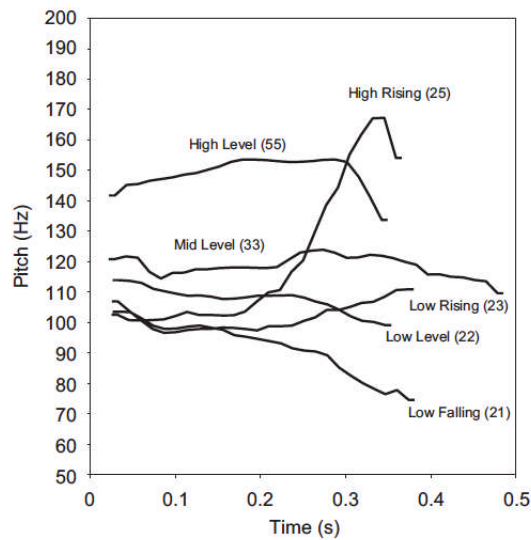
Fig. 16 – 'Fundamental frequency contours for representative Cantonese tones produced on the syllable [ji] by an adult male native speaker from Hong Kong', from Francis et al, 'Perceptual learning of Cantonese lexical tones by tone and non-tone language speakers', 272.

While this seems complicated to non-Cantonese speakers, actually it is not that difficult to recognise the words when they are used in combination. Two adjacent words with different 'tone-levels' would be pronounced at two different pitches, but there is some flexibility in determining the interval between the two adjacent words. However, the general shape of the melody must give sense to the words, in order to make the words comprehensible.

In most Cantonese pop songs, usually the melody is composed first, so that the composer does not need to be constrained by the tone inflections of the words. In some traditional Cantonese Opera music, the lyrics are written first, and then the performer improvises the melody accordingly. As the melodic contour is governed by the tones of the words, it sounds more like a 'recitative' (in a half-singing, half-reciting style). Here I am using the latter approach, which is limiting and yet challenging.

Chapter 3

Verbal exchanges: Collaboration with Performers

In this chapter, I discuss pieces that involve much more collaboration with performers. For *Shadows in the Water II*, there is no notated score. In *Alone with the Moon and the Shadows*, I used mainly written instructions to communicate my ideas, and the piece was developed during rehearsals. Notation here is used merely as an example of the style of music in my mind, rather than a score that governs what should be performed.

3.1 *Shadows in the Water II* for voice and live electronics

Premièred by James Cave (countertenor) and Cheong Li (live electronics) at the 360 Demonstration Space, Ron Cooke Hub, University of York, June 2012
Approx. duration: 7-8 mins

Shadows in the Water II is a project James Cave (countertenor) and myself (live electronics) conceived together. James Cave had previously written a piece *Shadows in the Water I* for voice and ensemble. My piece, which has no notated score, is developed mainly through discussion and trial and error.

The piece takes its title from a poem by the 17th-century Metaphysical poet Thomas Traherne. Here is an excerpt from the poem: [29]

> *'Thus did I by the water's brink⏎*
> *Another world beneath me think;⏎*
> *And while the lofty spacious skies⏎*
> *Reversed there, abused mine eyes,⏎*
> *   I fancied other feet⏎*
> *   Came mine to touch or meet;⏎*
> *As by some puddle I did play⏎*

---

[29] Traherne, Selected Poems and Prose, 126

Another world within it lay.

Beneath the water people drowned,
Yet with another heaven crowned,
In spacious regions seemed to go
As freely moving to and fro:
In bright and open space
I saw their very face;
Eyes, hands and feet they had like mine;
Another sun did with them shine.'

In this poem, a child splashes in a puddle and, misunderstanding the science of reflection, imagines that the images seen therein are evidence of an alien realm glimpsed through the water.

In our piece, this meeting of worlds is represented by the interaction of the solo countertenor with live electronics. We start the piece by playing with water sounds in a bowl amplified through speakers. Then James Cave mimics the sound of water drops with his lips, followed by a series of distinct gestures in the vocal line: glissandi, pizzicati and a wistful melody, which are transfigured and mutated by electronic effects into strange echoes of themselves. Finally, the work returns to the tranquility of its opening.

The work is partially improvised; each realisation offers a different interpretation of the other world beneath the water, whether it is about the fascination of a parallel universe or is about the darker side of our soul that hopes for redemption. In the process, we did several recordings during the rehearsals and listened back to them to decide which material brought out the essence of the piece most. A motif of falling thirds became one of the major musical ideas and it worked well in harmony, as live electronics turned a single line into a chorus.

The piece was first performed in the 360 Demonstration Space, Ron Cooke Hub, University of York in June 2012. The venue is a small black box theatre with thirty-two speakers and video projection on all four sides of the walls. I made a video out of moving

images of water reflection in lakes and puddles. Live sounds are projected to the rear speakers, while pre-recorded water sounds are heard on all four sides. An audience sitting in the middle of the room should feel as though they are in the middle of a lake. Included in the DVD is the video I have made for this concert, with a studio recording of the piece during our final rehearsal. The piece was performed again in the Chimera summer concert in June 2012, and the performance recording is included in the audio CD.

3.2 *Alone with the Moon and the Shadow*

Written in 2012
Performed in a workshop by Juice (Anna Snow, Sarah Dacey, Kerry Andrew)
in the Rymer Auditorium in June 2012
Approx. duration: 4-5 mins

When I came across Li Po's poem, *Drinking Alone Under the Moon,*[30] I conceived of the idea of writing a piece for the Juice Vocal Trio. In the poem, the poet imagines that the moon and his shadow are his best friends and invites them to drink and dance together. Not only are the three characters are well suited to a vocal trio but also the idea that a moon or shadow would interact with a drunken poet suggested a lot of musical and theatrical possibilities.

I came up with the idea that the poet would be an initiator, the shadow an imitator, while the moon would be more like an observer. The shadow follows whatever the poet does, both in terms of singing and movement, while moon sings in a more static and subdued tone. However, the idea would not be interesting if each person played the same role throughout, so the performers are advised to switch their roles during the course of the piece, in a way not unlike the game 'musical chairs'. Towards the end, the moon takes a more aggressive role. It and the shadow sing in a more chaotic manner, as if the drunken poet can no longer keep hold of his mind. The piece ends when the poet falls on the ground.

---

[30] The poem can be found in *the Jade Mountain: a Chinese Anthology* translated by Witter Bynner.

A set of instructions and sample scores are provided to suggest ideas for improvisation, so that the performers are not required to develop the music from scratch. Initially, the performers felt that there was a bit too much information in the instructions, but once we went through them one by one, they proved to stimulate ideas from the performers. Once they understand the main concept, the instructions and the sample scores can be discarded and the performers start to develop their own ideas. I also used diagrams to suggest how they could move around on stage. The use of theatrical elements, body gestures and the exploration of space also helped the performers to express themselves musically.

The sample score I have provided is similar to traditional Chinese folk song. Like *the Village Song* or *Responses,* grace notes and other ornaments are features that define its style. While the set of instructions provide the basic structure of the piece, the scores provide the materials. As an afterthought, the piece could also be played with different sample scores, making the outcome very different, or the performers could be given the same score with a completely different set of instructions. That could be an idea for future development.

Chapter 4

Movement and Music

4.1 Two dance pieces

4.1.1 *When the Structure Softens*

Rachel Birch, Alex Barber and Debora Renzi, dancers;
Anthony Middleton, choreographyer;
Cheong Li, erhu and tape
Premièred in the Riley Theatre, Northern School of Contemporary Dance, Leeds in Nov 2009.

This short dance theatre piece was choreographed by Anthony Middleton and performed by Rachel Birch, Alex Barber and Debora Renzi at the Riley Theatre of the Northern School of Contemporary Dance, Leeds in November 2009, and it was performed again at the Sir Jack Lyons Concert Hall in January 2010. It was the first collaborative project in which I was involved, both as an improvising *erhu* player as the creator of the accompanying tape with electroacoustic music.

In this joint project between the University of York and the Northern School of Contemporary Dance, there was a session in which composers and dancers were introduced to each other, showing what we had performed in the past. I was glad to have Anthony as my partner, who is a choreographer full of ideas. He showed me his idea for a short piece for three dancers. In the original plan they started with the same movement and gradually dissolved into their own solo dances, and hence the name *When the Structure Softens* was used.

Erhu is a versatile bowed-string instrument that is easy to carry, which enabled me to move around and explore different postures on stage. I improvised with a few musical ideas in mind at first, and later I transcribed them for future reference. As we rehearsed, there were differences each time, but gradually we established a structure. On the next page is a transcribed score explaining what musical ideas I used in the performance (fig. 20).

When the Structure Softens

a short dance theatre with erhu and electroacoustic music

Cheong Li

Improvise on *erhu* with the following patterns.
Begin the piece with pattern A and end with pattern L.
Play the other patterns in any order and combination and respond to the dancers' movement.
Tape music starts at around half-way through the piece.
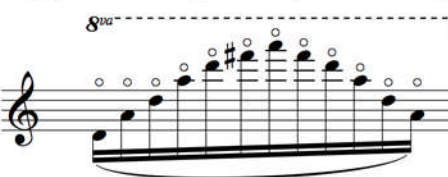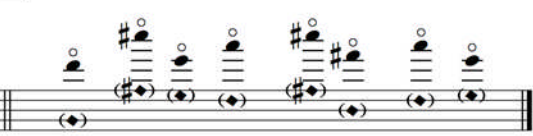
Fig. 17 - A transcription of musical ideas from *When the Structure Softens*

The piece began with Deborah standing stationary on a box. As she opened up her arms, the *erhu* started playing an open-string note. As the second dancer, Rachel, walked across the stage, I knelt and started to elaborate both melodically and sonically. When Alex, the third dancer, entered the stage and swayed her body quickly, I played staccato strokes and percussive sounds in response. In the middle of the piece, the tape music began. It was made of whistling tones and bass-like sounds that filled up the top end and lower end of the sound spectrum, acting as two extra layers of sound that corresponded to the three dancers. Now the three dancers moved more turbulently, and the *erhu* also played more vigorously at this moment. The piece ended with the tranquil sound of harmonics as the dancers stood still and stared up as if they felt something in the air, and then, a moment later, stared towards the side of the stage.

In this collaboration, I thought more about whether the music should reinforce the movement, or go against it. There were certain moments where I was leading while the dancers followed my music, and others where I was following the dancers and playing music that mimicked their movements. There were other moments when we were more like 'counterpoint', where they stood still while I was more elaborate, or where I held a long note while they moved a lot.
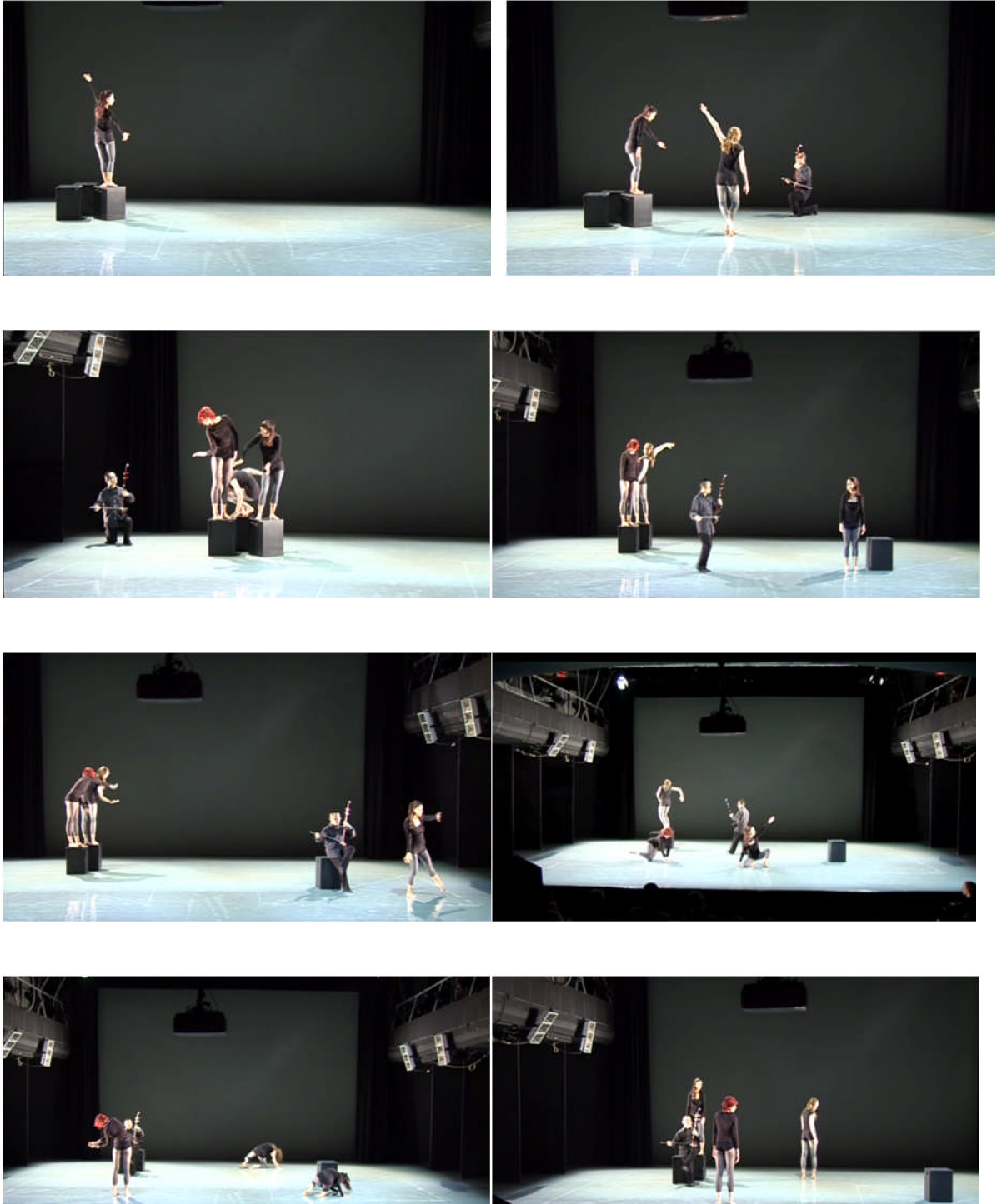
Fig. 18 - *When the Structure Softens*: video screenshots of the performance

4.1.2 *I'm Going to Play a Game*

In 2012, I joined the collaboration with the Northern School of Contemporary Dance a second time. This time the whole performance was based on John Cage's *Song Books*, in

which different groups of musicians and dancers performed on the same stage, with their performance sometimes overlapping each other. We entered and left the stage precisely according to the clock, and each of us chose one piece from the *Song Books* as the inspiration for our dance theatre. Gemma Harrison, the choreographer, picked Song 26 from *Song Book I*, which is about a board game. Song 26 also refers to directions in Song 23, which provides additional instructions for how the piece should be performed. The following are instructions provided by Cage:

```
SOLO FOR VOICE 26          THEATRE WITH ELECTRONICS          (IRRELEVANT)


0'00" No. 2B


Directions (SEE SOLO 23)


    Play a game of solitaire (or play both or all sides of a game
    ordinarily involving two or more players).
```

```
SOLO FOR VOICE 23          THEATRE WITH ELECTRONICS          (IRRELEVANT)


0'00" No. 2


Directions


On a playing area (e.g. table, chessboard) equipped with contact
microphones (four channels preferably, speakers around the audience,
highest volume without feedback)


    Play a game with another person (e.g. chess, dominoes) or others
    (e.g. scrabble, bridge).
```

Fig. 19 – Song 26 (p. 91) and Song 23 (p. 81) from John Cage's *Song Book I*

We established the idea that the dancer, Kinga, would be a chess piece who wanted to escape from the chessboard and play her own game rather than being controlled. Most of the dance movements were on the floor level, where the dancer struggled to leave the 'chessboard', a plastic sheet that produced hissing noises. (See fig. 20)

Fig. 19 – I'm Going to Play a Game: Video screenshots of the performance

As I had used pre-recorded tape music in the previous piece, this time I planned to base the piece completely on the dancer's voice and body movement. A condenser microphone was put near the wings pointing to the stage, which captured her voice and any sounds transmitted through the air. A contact microphone was put underneath the plastic sheet, which captured all the noises of her body movement. She starts the piece by saying 'I'm going to play a game' and counting numbers, as if she is testing the microphone. Her voice is amplified and looped. Then we start to hear different sorts of noises as she walks, crawls and rolls on the mat. Her movements are captured by webcam as well, which triggers sound samples of wind chimes. The chime sounds are denser when she moves more vigorously. As the sounds are created live by the dancer, the sound and the dance are coherent and interactive.

4.2 _Playground_

an electroacoustic sound installation

This sound installation was first displayed in the Chimera promenade concert in June 2011. It was in a medium size classroom (Room 106), and the four speakers were put in a standard quadraphonic setting at four corners of the room. Later, the sound installation was created again in the Rymer foyer as part of the York Spring Festival of New Music 2012. The foyer is a half-open area in a trapezoid shape. I modified and improved my patch accordingly to fit the environment.

The piece is based on the idea of how movements can be used to generate sound. Motions are first detected by webcam and then analyzed by Max/MSP/Jitter to generate MIDI data. The computer then creates random pitches in different scales (chromatic, pentatonic, octatonic or hexatonic) and triggers sound samples of various metallic percussion instruments.

In the 1.0 version, I used Quartz Composer, an Apple developer tool for visual processing, and the idea of my project was influenced by 'Webcam Piano 1.0' developed by Mehmet S. Akten[31]. However, Quartz Composer has a disadvantage in that it uses a lot of computer resources. In this 1.3 version, although the concept is basically the same, I've rewritten the patch in Max/MSP/Jitter, using cv.jit objects for motion tracking developed by Jean-Marc Pelletier[32] and ICST tools for ambisonic panning.[33] Although my setup is simply for four speakers, the ambisonic panning tools are convenient for distributing sound in space with any number of speakers.
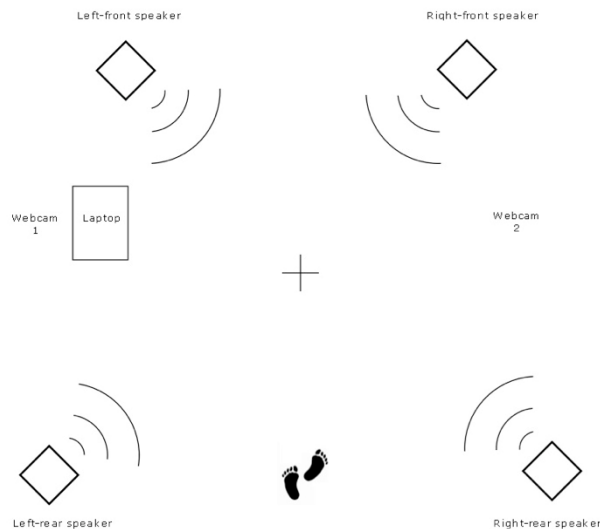
Fig. 20 – The floor plan of the sound installation *Playground*

Max / MSP detects a region on the webcam that is in high contrast to the other part of the screen and identifies it with a box. So when someone moves his hands in front of the webcam, he moves the box as shown on the screen. The X and Y coordinates of the box are then used as an indication of where the sound would be produced, so that the sound moves

---

[31] Akten, 'Webcam Piano 2.0' <http://www.memo.tv/webcam-piano-2/>

[32] Pelletier, 'cv.jit – computer vision for jitter' <http://jmpelletier.com/cvjit/>

[33] Institute for Computer Music and Sound Technology, 'ICST tools for MaxMSP' <http://www.icst.net/research/>

in the space as the person moves his hand. As one moves closer or further away from the webcam, the size of the box on the screen also changes, which controls the volume of the sound produced. I used Kontakt, loading pre-recorded sounds of Tibetan singing bowls and temple bells. As X and Y coordinates change, the pitch changes as well. Thus an interesting sound is created, which travels around the space.

In this sound installation, I tried to find a correlation between sound and space. Normally, in a concert environment, the audience cannot control where the sound source is. In this sound installation, it allows participants to use hand gestures to control music as well as its position in the space.

Final Thoughts

Finding a middle way between freedom and control, between composition and improvisation, has been the central focus of my research. The division of labour in the process of music making is the result of music development in the last few centuries, during which the roles of composer and performer have become specialized. While notation helps to communicate information efficiently, it also separates the performance from the composition process. Perhaps an alternative model would enable all musicians to express their creativity: the role of a composer would be less a decision-maker who controls the creative process and more a facilitator who provides an initial idea and motivates others to develop an idea, while performers could also join in the creative process, rather than just executing the score. Hopefully one day improvisation would be regarded as an essential part of our music training, just as sight-reading is an important skill for musicians.

Resource List

Books

Bailey, Derek.   *Improvisation: Its Nature and Practice in Music.* Ashbourne: Moorland Pub, c1980.

Bentley, Jerry H.   *Old World Encounters. Cross-cultural contacts and exchanges in pre-modern times*. New York: Oxford University Press, 1993.

Berliner, Paul.   *Thinking in Jazz: the Infinite Art of Improvisation*. Chicago: University of Chicago Press, 1994.

Bynner, Witter & Kiang, Kang-Hu.   *The Jade Mountain: a Chinese Anthology – Being Three Hundred Poems of the Tang Dynasty.* New York: Vintage Books, 1972.

Catholic Church.   *Missale romanum*. S.l: s.n, 1962.

Forte, Allen.   *The Structure of Atonal Music.* New Haven: Yale University Press, 1973*.*

Gulik, Robert Hans van.   *Lore of the Chinese Lute: An Essay on the Ideology of the Ch'in.* 3rd ed. Bangkok: Orchid Press, 2011.

Han, Kuo-Huang & Campbell, Patricia Shehan.   *The Lion's Roar: Chinese Luogu Percussion Ensembles.* Danbury, CT: World Music Press, 1996.

Holmes, Thom.   *Electronic and Experimental Music: Technology, Music, and Culture.* New York: Routledge, 2008.

John-Steiner, Vera.   *Creative Collaboration*. Oxford: Oxford University Press, 2000.

Lely, John & Saunders, James.   *Word Events: Perspectives on Verbal Notation.* London: Continuum, 2011.

Myers, John E.   *The Way of the Pipa: Structure and Imagery of Chinese Lute Music.* Kent, Ohio: Kent State University Press, 1992.

Nyman, Michael.   *Experimental Music: Cage and beyond.* Cambridge: Cambridge University Press, 1999.

Straus, Joseph.   *Introduction to Post-Tonal Theory*, 3rd ed. Upper Saddle River, NJ: Prentice Hall, 2004.

Traherne, Thomas.   *Selected Poems and Prose.* London: Penguin Books, 1991.

Articles

Francis, Alexander L.; Ciocca, Valter; Ma, Lian & Fenn, Kimberly.   'Perceptual learning of Cantonese lexical tones by tone and non-tone language speakers', *Journal of Phonetics*, 36 (2008): 268-294.

Lam, Joseph S. C. 'Analyses and Interpretations of Chinese Seven-string Zither Music: The Case of the Lament of Empress Chen', *Ethnomusicology* (1993): 353–385.

Nettl, Bruno et al. 'Improvisation', in *The New Grove Dictionary of Music and Musicians*, 2nd ed., ed. Stanley Sadie and John Tyrrell. London: Macmillan, 2001.

Reynolds, Roger & Takemitsu, Tōru.   'A Jostled Silence: Contemporary Japanese Musical Thought (Part One)' *Perspectives of New Music*, vol. 30, No. 1 (Winter, 1992): 22-35.

Turner, Steve Sweeney.   'John Cage's Practical Utopias – John Cage in Conversation with Steve Sweeney Turner.' *The Musical Times*, vol. 131 (1990): 469-472.

Witzleben, J. Lawrence.   'Jiangnan Sizhu Music Clubs in Shanghai: Context, Concept and Identity', *Ethnomusicology*, vol. 31 (1987): 240–260.

Zorn, John.   'The Game Pieces', in Christopher Cox, Daniel Warner, *Audio Culture: Readings in Modern Music*, New York: Continuum, 2004.

Scores

Anonymous.   'Jieshidiao Youlan' (Elegant Orchid in the Stone Tablet Mode). TB-1393. Tokyo National Museum, accessible online at *e-Museum: National Treasures & Important Cultural Properties of National Museums, Japan.* <http://www.emuseum.jp/detail/100229/000/000?> [accessed 28 September 2013]

Anonymous.   'Dun Shi Cao', *John Thompson on the Guqin Silk String Zither,* ed. John Thompson, <http://www.silkqin.com/04qart/07sqmp/01dsc.htm> [accessed 11 October 2012]

Anonymous. 'Lin Wan Kau', *A Learning and Teaching Package on Cantonese Opera* (粵劇合
士上), ed. Hong Kong Education Department.
<http://resources.edb.gov.hk/~chiopera/scores/yenguai.pdf > [accessed 20 September
2013]

Cage, John. *Song Books.* New York: Peters, 1970.

Berio, Luciano. *Sequenza XI, per chitarra solo.* Vienna: Universal Edition, 1988.

Kurtág, György. *Moments Musicaux,* op. 44, for string quartet. Budapest: Editio Musica,
2008.

Lutosławski, Witold. *Jeux vénitiens.* Celle: Moeck Verlag, 1962.

Maderna, Bruno. *Serenata per un satellite.* Milano, Ricordi, 1970.

Takemitsu, Tōru. *November Steps.* New York: Peters, 1967.

Webern, Anton. *6 Bagatellen für Streichquartett, op. 9*. Wien: Universal Edition, 1952.

Web resources

Akten, Mehmet S. 'Webcam Piano 2.0' <http://www.memo.tv/webcam-piano-2/>

Anderson, Scott. 'John Coltrane, Avant Garde Jazz and the Evolution of "My Favorite
Things" '. <http://coltrane.room34.com/thesis> [accessed 11 October 2012]

Chenette, Jonathan. 'The Concept of "ma" and the Music of Toru Takemitsu'.
<http://adminstaff.vassar.edu/jochenette/papers.html> [accessed 20 September
2013]

Feisst, Sabine. 'Losing Control: Indeterminacy and Improvisation In Music Since 1950', 2002
<http://www.newmusicbox.org/articles/Losing-Control-Indeterminacy-and-
Improvisation-in-Music-Since-1950/> [accessed 3 July 2013]

Hong Kong Education Department, ed. *A Learning and Teaching Package on Cantonese Opera* (粵劇合士上) <http://resources.edb.gov.hk/~chiopera/main.html> [accessed 11 October 2012]

Institute for Computer Music and Sound Technology. 'ICST tools for MaxMSP' <http://www.icst.net/research/> [accessed 21 September 2013]

Morris, Lawrence D. 'Lawrence D. "Butch Morris – Conduction.us' <http://www.conduction.us > [accessed 24 September 2013]

Pelletier, Jean-Marc. 'cv.jit – computer vision for jitter' <http://jmpelletier.com/cvjit/> [accessed 21 September 2013]

'Shorter Heart Sutra', *Wikisource*. Wikimedia Foundation, Inc. 4 Aug 2013 <http://en.wikisource.org/wiki/Shorter_Heart_Sutra_%28Wikisource%29#Latin_version> [accessed 25 September 2013]

'There is Nothing Right in My Left Brain, and Nothing Left in My Right Brain' (Facebook Page) <https://www.facebook.com/pages/There-Is-Nothing-Right-In-My-Left-Brain-And-Nothing-Left-In-My-Right-Brain/> [accessed 25 September 2013]

Thompson, John. *John Thompson on the Guqin Silk String Zither.* <http://www.silkqin.com > [accessed 11 October 2012]

Wernick Musical Instruments. 'Xylosynth by Wernick'. <http://www.wernick.net/> [accessed 28 September 2013]

Wong, Lok-Ting. '廣東音樂五架頭《連環扣》' (Cantonese Music 'Lin Wan Kau' Played On Five Instruments) <http://www.youtube.com/watch?v=KmTl3s90AlI> [accessed 25 October 2012]