©2009 Ling-Ti Huang
MUSIC FOR TWO PIANOS BY TAIWANESE COMPOSERS
MAO-SHUEI CHEN, GORDON SHI-WEN CHIN, PEY-WEN YEN, CHING-WEN CHAO

BY

LING-TI HUANG

DISSEPTION

Submitted in partial fulfillment of the requirements for the degree of Doctor of Musical Arts in Music with a concentration in Performance and Literature in the Graduate College of the University of Illinois at Urbana-Champaign, 2009

Urbana, Illinois

Doctoral Committee:

Professor Ian Hobson, Chair
Associate Professor Zack Browning, Director of Research
Professor Reid Alexander
Assistant Professor Gayle Sherwood Magee
This is the first study to focus exclusively on two-piano compositions by Taiwanese composers. The four compositions for two pianos included in this study are Ballade (2003) by Mao-Shuen Chen (b. 1936), Quiet Joy (1999) by Gordon Shi-Wen Chin (b. 1957), Piano Duet (2005) by Pey-Wen Yen (b. 1966) and Studies No.1-3 (1999) by Ching-Wen Chao (b. 1973). The two male and two female composers have been and continue to be prominent figures in the development of contemporary music in Taiwan. The objective of this study is to familiarize performers and audiences with the four compositions for two pianos.

Each composition represents a significant personal statement by the composer, exemplified by a unique compositional style. Mao-Shuen Chen’s Ballade and Gordon Shi-Wen Chin’s Quiet Joy are inspired by the society and the landscape scenery in Taiwan, which convey their deep personal affection for the island. The Piano Duet by Pey-Wen Yen reflects a time when she was in search of mental freedom, a state that is related to Nirvana in the religion Buddhism. Studies No.1-3 by Ching-Wen Chao was written during a time when she was preoccupied with the works of the American composer Conlon Nancarrow. The third piece of Studies is the first of a series of compositions in memory of Chao’s father. The selection and synthesis of musical materials - pitch, rhythm, harmony, texture, formal structure - create a satisfying, self-assured expression of emotions by the composers and a fulfilling musical experience for the audience.

This study provides an in-depth analysis and performance suggestions for the four compositions for two pianos. Diverse approaches to the use of Western techniques to express personal values derived from Asian culture is an important concept shared by the four compositions. These works represent a successful model and an inspiration for Taiwanese composers that desire to combine Eastern and Western compositional techniques.
To

My Father
Yi-Li Huang,
and
My Mother
Shu-Mei Wang.
ACKNOWLEDGMENTS

This project has been a wonderful opportunity to collaborate with some of the best musical minds. First and foremost, I would like to express my deepest gratitude to my adviser, Dr. Zack Browning, whose generosity with his valuable time, intelligent eye, numerous readings of drafts, and encouraging words throughout the development of this document will never be forgotten. I would like to thank the dissertation committee members, Dr. Gayle Sherwood Magee and Dr. Reid Alexander, who must be acknowledged for their helpful advice on the editorial corrections and the broadening of my conclusion. Special thanks go to the chair of the committee, the great pianist and conductor Ian Hobson, for his guidance of the art of piano playing and for the inspiration and recognition he has given me over the past five years.

I particularly wish to express my appreciation to the following composers who participated in this project: Professors Mao-Shuen Chen, Gordon Shi-Wen Chin, Pey-Wen Yen and Ching-Wen Chao. Their warmth and kindness and their enthusiastic sharing of their music and thoughts during the interviews not only facilitated this research but turned it into a fascinating adventure. I would also like to acknowledge Professors Shui-Long Ma, Wei-De Song, Long-Kuang Hsieh, Po-Yun Hsu, Mei-Fang Lin, Cha-Lin Pan and Tzu-Shan Lin for their resourcefulness and vast knowledge of the development of contemporary music in Taiwan, not to mention their professional relationships with premier contemporary composers. These Taiwanese composers have served as a cornerstone for this study.

Finally, I must thank my previous piano instructors – Tzong-Kai Kuo, Yu-Hsiu Chen and Li-Chun Lai – for their tremendous devotion to the establishment of my musicality. I thank my dearest parents for raising me in an environment where music was always present. Their generous support in every aspect has sustained me throughout the entire period. I thank my sister for her companionship and her unwavering faith in me. Special thanks to my parents-in-law for their thoughtfulness and positive support and especially their appreciation of my profession. Most of all, I thank my sweet and intelligent husband for his love, strength, care and humor during ours years of study in the US. My life with music would not be so wonderful without him.
# TABLE OF CONTENTS

INTRODUCTION ....................................................................................................................................... 1

CHAPTER 1  BALLADE by MAO-SHUEN CHEN ...................................................................................... 8

  1.1  Biography of Mao-Shuen Chen ................................................................................................ 8
  1.2  Introduction of Ballade .............................................................................................................. 9
  1.3  Formal Structure of Ballade ........................................................................................................ 10
  1.4  Chinese Scales and Modes in Ballade ....................................................................................... 13
  1.5  Discussion of Individual Sections of Ballade ............................................................................. 22
  1.6  Performance Issues in Ballade .................................................................................................... 36
  1.7  Summary of Ballade ..................................................................................................................... 37

CHAPTER 2  QUIET JOY by GORDON SHI-WEN CHIN ...................................................................... 38

  2.1  Biography of Gordon Shi-Wen Chin ......................................................................................... 38
  2.2  Introduction of Quiet Joy .......................................................................................................... 39
  2.3  Method and Form of Quiet Joy ................................................................................................... 44
  2.4  Formal Structure of Quiet Joy .................................................................................................... 47
  2.5  Discussion of Individual Sections of Quiet Joy ......................................................................... 50
  2.6  Performance Issues in Quiet Joy ................................................................................................ 82
  2.7  Summary of Quiet Joy .................................................................................................................. 84

CHAPTER 3  PIANO DUET by PEY-WEN YEN .................................................................................. 85

  3.1  Biography of Pey-Wen Yen ........................................................................................................ 85
  3.2  Introduction of Piano Duet ......................................................................................................... 86
  3.3  Discussion of Individual Movements of Piano Duet ................................................................ 94
      3.3.1  Movement I: Understanding ............................................................................................ 94
      3.3.2  Movement II: In Mind .................................................................................................... 104
      3.3.3  Movement III: Wave ...................................................................................................... 121
  3.4  Performance Issues in Piano Duet ............................................................................................ 136
3.5 Summary of Piano Duet ........................................................................................................ 137

CHAPTER 4 STUDIES NO. 1, 2, 3 by CHING-WEN CHAO ...................................................... 138

4.1 Biography of Ching-Wen Chao ...................................................................................... 138

4.2 Introduction of Studies No. 1, 2, 3 .............................................................................. 139

4.3 Discussion of Individual Studies .................................................................................. 140

4.3.1 Study No. 1 ............................................................................................................. 140

4.3.2 Study No. 2 ............................................................................................................. 160

4.3.3 Study No. 3 ............................................................................................................. 171

4.4 Performance Issues in Study No. 1, 2, 3 ................................................................... 180

4.5 Summary of Studies No. 1, 2, 3 ................................................................................ 182

CHAPTER 5 CONCLUSION .................................................................................................... 183

BIBLIOGRAPHY ................................................................................................................ 186

APPENDIX A SELECTED COMPOSITIONS FOR TWO PIANOS BY TAIWANESE COMPOSERS ........................................................................................................... 188

APPENDIX B MAJOR COMPOSITIONS FOR PIANO ................................................................ 190

AUTHOR’S BIOGRAPHY .................................................................................................. 194
INTRODUCTION

Purpose and Significance of this Study

The objective of this study is to familiarize performers and audiences with the two-piano music by four important Taiwanese composers: Mao-Shuen Chen (b. 1936), Gordon Shi-Wen Chin (b. 1957), Pey-Wen Yen (b. 1966) and Ching-Wen Chao (b. 1973). The criteria for selection of the four compositions for this study are based on the following six factors:

1) The composer has been active in contemporary music in Taiwan.
2) The composer considers his/her works for piano as an important work within their catalogue.
3) The composition for two-pianos is significant for the composer for personal reasons and demonstrates an important compositional style of the composer.
4) The composition for two pianos has been performed in a concert at least once.
5) The composition for two pianos has not been the subject of a comprehensive or detailed analysis.
6) The composer is accessible for personal interviews.

Mao-Shuen Chen, Gordon Shi-Wen Chin, Pey-Wen Yen and Ching-Wen Chao have been and continue to be prominent figures in the development of contemporary music in Taiwan over the past decades. Each composer has created a substantial amount of works that experiments with the fusion of Western and Eastern musical resources and the fusion of classical and contemporary musical styles. Each composer has created a distinctive and individual compositional method and musical language. With their consistent efforts to develop the conventions of music in their recent compositions, the four composers continue to have an important influence on the current musical developments in Taiwan.

When one examines the works by these four composers, the compositions for two pianos represent a significant opus. The works for two pianos not only display essential characteristics of their compositional styles but also carry special meanings in the composers’ lives. Mao-Shuen Chen’s Ballade (2003) and Gordon Shi-Wen Chin’s Quiet Joy (1999) are inspired by the society and the landscape

---

1 Personal interviews with Mao-Shuen Chen (February 20, 2009), Gordon Shi-Wen Chin (March 4, 2009), Pey-Wen Yen (May 2, 2009) and Ching-Wen Chao (March 27, 2009).
scenery in Taiwan, respectively. Their music conveys their deep affection for the island. The *Piano Duet* (2005) by Pey-Wen Yen reflects a time when she was in search of mental freedom. Although the basic ideas for *Piano Duet* were carefully considered, Yen deliberately skipped the process of making precompositional arrangements of musical parameters and simply followed her intuition to form the structure and content of the music. Finally, *Studies No.1-3* (1999) by Ching-Wen Chao was written during a time when she was preoccupied with the works of the American composer Conlon Nancarrow. Chao used serial manipulation to achieve structural unification, which was the direct opposite to the compositional method of Pey-Wen Yen’s *Piano Duet*. Furthermore, the third piece of *Studies* is the first of a series of compositions in memory of Chao’s father, who passed away during her study at Stanford University. In this piece, she highlighted the notes ‘C’ and ‘G#’ that correspond to the initials of her father’s name, Gen-Sheng Chao.

There have been no prior studies on the two-piano works by the four Taiwanese composers except for the *Studies* by Ching-Wen Chao. In addition, the scores and recordings for the four compositions in this study are unpublished and are available only from the composers. The current research will provide the primary resource for pianists who want to perform these two-piano works.

**Summary of Previous Research**

1. **Selected Studies on Piano Music by Taiwanese Composers**

   There are four major studies that focus on Taiwanese piano works. Each study addresses piano compositions from a specific time period.


   In Yang’s thesis, she identified the sources of influence that lead to the formation of the musical styles of selected 20th century Chinese composers and discusses the contemporary compositional devices employed by these composers. Her research briefly introduces some representative works by leading Taiwanese composers, including Su-Ti Chen (1911-1992), Chih-Yuan Kuo (b. 1921), Tsang-Houei Hsu
(1929-2001), Mao-Shuen Chen (b. 1936), Shui-Long Ma (b. 1939), Song-Jen Hsu (b. 1941), and Hwang-Long Pan (b. 1945). An account of the music history of Taiwan and Mainland China before 1950 is also provided. The musical relationship between the two territories during that period of time is examined in detail.


Huang’s dissertation is a comprehensive catalogue of piano works composed from 1930 to 1993. The compositions in her study total 115. She categorizes them into five genres: single-movement solo works, multi-movement solo works, arrangements, works for two pianos and four hands, and piano concertos. Huang also summarizes the compositional traits and techniques found in these works. Huang’s study not only provides an overview of the development of piano music in Taiwan since the Japanese occupation, but also presents how composers, from 1930 to 1993, gradually formed a unique national music under the influence of Western and Eastern musical heritages. Huang’s dissertation is the first study to include two-piano works by Taiwanese composers. The two-piano pieces in her study are Endless Moments (1990) by Ding-Lien Wu (b. 1950) and Fantasy (1992) by Jin-Tang Sheng (b. 1940).


In this project, Huang compiled fifteen chamber music works (trios and duos) and solo piano pieces by nine Taiwanese composers and divided the music into three recitals according to the combination of the instruments. Among the fifteen works of Huang’s collection are three pieces for two pianos: Concertino (1974) by Chih-Yuan Kuo (b. 1921), The Legend of the Ten Suns (1995) for two pianos by Mei-Chun Sally Chen (b. 1968) and Recursive Schema (1996) by Ching-Yu Hsiao (b. 1966). The compositions selected for this study are not only technically influenced by Western music but also infuse folk and traditional music and literary elements of Taiwan to create an international character.

Cheng’s doctoral essay is the latest study of Taiwanese piano music, in which Cheng made a list of 73 piano pieces by 24 composers born between 1950 and 1973. The composers who participated in Cheng’s project are arranged in chronological order and their works are graded according to the level of difficulty from the easiest to the most difficult ones by the composers themselves. The core part of Cheng’s study is a brief analysis of each work, focusing on rhythmic, harmonic and melodic features as well as aspects of pianistic techniques. Among the 24 composers that participated in Cheng’s research, five of them have composed piano duos, and that includes Ching-Wen Chao’s *Studies*. Other works for piano duos are: *Overture* - *The Beautiful Island-The Homeland* and *Suite* - *A sketch of Southern Taiwan* (2001) by Wen-Tze Lu (b. 1962), *Suite* (1979) by Ding-Lien Wu (b. 1950), *Flower in a raining night* (2005) by Ting-Yi Ma (b. 1962), and *Recursive Schema* (1996) by Ching-Yu Hsiao (b. 1966), a work included in the previously mentioned study. For Ching-Wen Chao’s *Studies No.1-3* (1999), Cheng comments on the general characteristics of the piece without providing a detailed analysis. However, Cheng’s research does illuminate the distinctiveness of this work and his comments have been important for this study.2

2. **Studies on Music by Mao-Shuen Chen, Gordon Shi-Wen Chin, Pey-Wen Yen and Ching-Wen Chao.**

1) **Mao-Shuen Chen**

The major reference concerning Chen’s music is a book that analyzes Chen’s Sonatas No.1 and 2 and an article, “The Composition Conception in the Piano Works of Mao-Shuen Chen” written by pianist and music educator En Wang, who is Chen’s colleague at National Taiwan Normal University and Aletheia University.3 Wang’s book presents the essential elements of Chen’s music manifested through his two Piano Sonatas. Her conference paper includes twenty-five sonatinas, seven piano sonatas, two nocturnes

---

2 A list of selected compositions for two pianos by Taiwanese composers is provided in the appendix A.

and a piano concerto. The two studies provide a starting point for the author’s analysis of Chen’s music.

The other important resource is Tien-Yi Chiang’s essay “The New Taiwan Music Piano Works, Volumes I-VII.” The New Taiwan Music Piano Works is a series of compositions for piano music composed by Formusica composers. Formusica Arbeitsgruppe der Komponisten (Chinese: Shuen-Yin-Ya-Zhi), founded in 1983, was established by The Wach School of Music by Mao-Shuen Chen and En Wang. “In 1983, the year of its founding, The Wach School of Music created Formusica as an entity to support Taiwanese composers and the ambitious mission of the School.” Since then, Chen has helped to generate new works of Taiwanese piano music. Formusica has been holding annual concerts featuring new piano and chamber music by Taiwanese composers over the past ten years. New compositions for piano performed in the concerts have been published under the name New Taiwan Music Piano Works. As of 2007, there are seven volumes in total with an eighth volume in progress. The collection presently includes more than 136 works for piano. Formusica has not only encouraged Taiwanese composers to write modern, innovative piano music but also to encourage Taiwanese students to discern the language of contemporary music by performing these works.

Chen wrote three pieces that appear in the seventh volume of the series: Hopscotch, Stilt Walking and Battles on Horseback. Like Ballade for two pianos, the three compositions in the series were constructed using Chinese scales and demonstrate Chen’s adeptness in creating music that corresponds to motion implied by the titles such as Hopscotch, Stilt Walking and Battles on Horseback.

2) Gordon Shi-Wen Chin

Major studies regarding Chin’s music include the doctoral thesis written by Tzu-Shan Lin: “Gordon Shi-Wen Chin: A Taiwanese Composer,” and a book that was authored and published by Chin himself:

---


6 Hopscotch, stilt walking and battles on horseback are children’s games.
“Towards a Broader Vision of Composition: from Compositional Experiences to Compositional Goals.”

These two references, which focus primarily on Chin’s orchestral and vocal compositions, provide an invaluable insight into Chin’s life, philosophy and the evolution of his musical styles.

3) Pey-Wen Yen

Once an outstanding student of Mao-Shuen Chen, composer Pey-Wen Yen now also teaches at Alethia University in Taipei and has becoming an active member of Formusica. Yen has composed a great variety of interesting music and three musical plays since she finished her study in Austria in 1996.

Although Yen’s works have been frequently performed and widely appreciated, there has been no research focusing particularly on her life and music. This study is the first to feature Yen’s music and my personal interviews with the composer is an important resource for this research.

4) Ching-Wen Chao

Ching-Wen Chao, the youngest of the four composers and also a former student of Mao-Shuen Chen, is an important young composer in Taiwan. Her talent and diligence has enabled her to compose remarkable compositions during her study at Stanford University. Studies No.1-3, the piece in this dissertation, is one of her most successful compositions during that time. Chao returned to Taiwan in 2003, and since then, she has composed several significant works in fulfillment of commissions from Taiwan, America and Europe. Chao is a leader in the development of electronic music in Taiwan. Her thorough knowledge and stunning productions in this realm have resulted in Chao being called “Queen of electronic music.”

There are two major resources for the author to approach Chao’s music. First, a self-authored book by Chao: “A Discussion of My Recent Compositions through Cultural Music Resources and Electronic

---

7 According to Tzu-Shan Lin, Chin’s self-authored book is currently unavailable in English and there are only a few copies available in Taiwan.

8 In the concert “The Cyber TCO” held by Forum Percussion Ensemble and Taipei Chinese Orchestra in Zhongshan Hall, Taipei, where Chao’s composition Natural Boundary for percussions, electronics and Chinese orchestra was performed, the host of the concert, Jing-Yuan Wang, used the name to introduce Ching-Wen Chao.
Music Techniques.”9 This book reveals Chao’s thoughts and methods of composition. It contains her statements on how Taiwanese traditional music has inspired her decision for the “sonic behavior” in her new compositions, how electronic music technique has facilitated her imagination and creation of sounds, and how the process of “hierarchical placement of sound objects”10 helped to analyze and organize the inspirations and to create sonic texture and structural spirits.11 The second important resource comes from personal interviews with Chao. As Chao’s book only discusses her works between 2004 and 2008, starting from the time she was on the faculty of National Taiwan Normal University until she finished her book, Studies No.1-3 (1999) were earlier compositions and were not included. Therefore, the analysis of Studies No.1-3 is based on my personal interviews with Chao.

Outline of the Thesis

The thesis will be divided into five chapters. The discussion of the four compositions is arranged according to the chronological order of the birthdates of the composers. Therefore, Mao-Shuen Chen’s Ballade (2003) is placed in the first chapter. Gordon Shi-Wen Chin’s Quiet Joy (1999) in the second chapter. Pey-Wen Yen’s Piano Duet (2005) in the third chapter and the fourth chapter focuses on Ching-Wen Chao’s Studies No.1-3 (1999). Before the analysis of each work, a brief biography of the composer and an introduction of the composition will be provided. A summary of the analysis of each composition and related performance issues are provided at the end of each chapter. The last chapter provides a conclusion of the study.

9 Ching-Wen Chao, A Discussion of My Recent Compositions through Cultural Music Resources and Electronic Music Techniques (Taipei: Hsiao Ya, 2008)
10 “Hierarchical placement of sound objects,” a name coined by Chao, is a process that contains two major steps. Through the process, she is able to settle inspirations, achieve structural invention and establish communicative power.
11 Chao, A Discussion of My Recent Compositions, 13.
CHAPTER 1

BALLADE

by MAO-SHUEN CHEN

Duration: ca. 10 minutes (320 measures.)
Date of Composition: 2003

1.1 Biography of Mao-Shuen Chen

Mao-Shuen Chen (b. 1936), composer, music theorist and music educator, was born to a musical family in the historical town, Beigang, Yun-Lin county. Chen’s family was the first to have a piano in Beigang. His grandfather was a Nanguan music player, and his father was also a respected trumpet player. Nurtured in a musical environment, Chen and his eight brothers and sisters all grew up becoming renowned musicians in Taiwan.

Formerly the Chairman of the Music Department at the National Taiwan Normal University, Chen is currently Professor of Composition at the National Taiwan Normal University and Aletheia University. Aside from being an active composer, he and his colleague at the National Taiwan Normal University, Professor En Wang, established the Wach School of Music in Taipei in 1983. As mentioned in the introduction, the school was created to offer a multi-faceted music education for students in Taiwan. From that point on, Chen’s roles as a composer and as a music educator have become inseparable.

Chen started to compose in the 1960s. Successful compositions are present in many genres, such as overtures, symphonies, symphonic poems, concertos, chamber music, choral music, art songs and piano music. Piano music represents the largest portion of his output. Chen is one of the most prolific composers of piano music in Taiwan. Major compositions for piano include twenty-five piano sonatinas,

12 Nanguan music is a genre of Han Chinese traditional music that originates from southeast China.
13 Professor En Wang is a researcher, advocator and performer of Chen’s music.
nine piano sonatas, two nocturnes, a three-movement piano concerto and the Ballade for two pianos.\textsuperscript{14}

\subsection*{1.2 Introduction of Ballade}

\textbf{Program Notes of Ballade}

In spite of the fact that Chen gives the piece a nondescriptive title, his inspiration comes from the street life in front of a temple. Below is the “story” Chen put in the program notes with the intention to enhance the listeners’ understanding of the music.

Two street vendors are peddling around on Temple Street. One of them is pushing his cart and peddling “\textit{E-A-Mi-Sua} (oyster thin noodles)”, the other is pushing his bicycle, peddling “\textit{Man-To, Gi-Qi-Man-To} (steamed buns, machine-made steamed buns)”. The two vendors have become good buddies and they need to be alert about the sudden appearance of the police as they peddle around. They see two stylish ladies walk toward the fortuneteller’s stall on the roadside, telling him about the marriage problem that their husbands are suffering, and ask how it could be solved. Then the two street vendors walk nearby the temple, and see a Taoist priest reciting the spells to recover a kid’s lost spirit and soul.\textsuperscript{15} On the other side of the street, the man specialized in fixing umbrellas and the shoemakers begin their work next to a pole. There comes the chopper and scissor sharpener while a car outside is peddling carrot cake, taro cake and red turtle-shape cake. A wagon faraway is loaded with bamboo rods and feather dusters. Even farther, someone is ready to fix screen window and glass. A bustling day around the temple begins.

Chen’ program notes vividly describe the street scene around a temple in the early period of Taiwanese history. Some parts of it can still be seen today. Prior to the premiere of the piece, Chen briefly explained that the goal for this composition is to convey his longstanding belief and hope that people from Mainland China and Taiwan can get along well in Taiwan.\textsuperscript{16} In Chen’s childhood memory, the vendors who sell oyster noodles or cakes are usually islanders that speak the Taiwanese traditional language, Hoklo. Other vendors like the ones who sell steam buns are mainlanders who speak Mandarin with regional accents. They all lived around the temple area and were loving neighborhoods regardless of

\textsuperscript{14} Pamphlet of \textit{The Evening of Mao-Shuen Chen}, DVD (Taipei, Taiwan: Department of Music, National Taiwan Normal University, 2003). Please see the Appendix B for a list of Chen’s major works for piano.

\textsuperscript{15} A belief that is prevalent in Chinese society: the Chinese believe our spirit or soul can be frightened and leave our body, if something shocking happens. People who are frightened and terrified believe their spirit and soul may be scared away, often seek help from religious ceremonies to recover their lost souls.

\textsuperscript{16} \textit{The Evening of Mao-Shuen Chen}, DVD (Taipei, Taiwan: Department of Music, National Taiwan Normal University, 2003).
the confrontations between the cross-strait governments. By giving each street vendor its own distinctive motive and superimposing the two motives together in this piece, Chen depicts the harmonious relationship between the mainlanders and islanders in the past and current society of Taiwan.

During my interview with Chen, he emphasized that the program notes were written for the purpose of enhancing the public’s appreciation of the music and his composition *Ballade* can be experienced independent of the story presented in the program notes. However, when I asked Chen whether the performers can relate the music to the stories presented in the program notes, he replied that as long as the performers understood the music, they can form their own individual interpretations. In the discussion of individual sections of *Ballade*, I investigate the relationship between the music and the story presented in the program notes, as I feel a strong connection between the motivic designs and the activities on Temple Street.

*Ballade* is in the form of a rondo sonata: ABA (exposition) → C (development) → ABA (recapitulation). According to Chen, section A (refrain) in the exposition and the recapitulation is formed by two motives that represent the two vendors’ peddling around the street, one selling oyster noodle while the other selling steamed buns. Section B (episode) in the exposition and recapitulation suggests the scene of two ladies talking with a fortuneteller about their marriage problems on their way to the temple. Section C (episode) is the most eventful section with all kinds of sounds from the street. It is divided into three subsections. The first subsection imitates comes the Taoist priest’s reciting of the spells (subsection I), followed by a recall of the peddling of the two vendors (subsection II) which leads to a superimposition of prior and new street activities (subsection III).

### 1.3 Formal Structure of *Ballade*

As mentioned above, *Ballade* is constructed in the form of a sonata rondo. Table 1-1 shows that the rondo comprises four refrains and three episodes plus one refrain hidden in the second subsection of section C. The refrains (refrain 1-5) are formed by two motives that represent the two vendors’ peddling around the street, one selling oyster noodle while the other sells steamed buns. Most of the refrains take

---

17 Personal interview with Chen in his studio on February 20, 2009, Taipei.
16-18 measures with the last refrain (refrain 5) taking about twice as long (34 measures) due to the repeat of the refrain theme. The tempo for refrains 1 and 2 is allegro (dotted half note equals 86) while the tempo for refrain 3-5 increases to dotted half note equals 96.

Section B in both the exposition and recapitulation is in a slower tempo (dotted half note equals 56). It takes 26 measures to portray the scene of two ladies talking with the fortuneteller about their marriage problems on their way to the temple. In the exposition, the tonic of section B is on ‘G,’ a perfect 5th above ‘C,’ while in the recapitulation, the tonic of section B is brought back to ‘C.’

Section C has 94 measures. It is the most eventful section with all kinds of sounds from the street. Section C is divided into three subsections according to different materials. The tempo in subsection II and III (dotted quarter note equals 96) is twice as fast as the tempo subsection I (dotted half note equals 96). The meter remains 6/4 throughout except for the subsection I of section C.

* Abbreviations used in the analysis:

Introduction = Intro.
Transition = Trans.
Subsection = Subsec.
Table 1-1: Structural diagram for *Ballade* by Mao-Shuen Chen.

### Exposition

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Meter</td>
<td>6</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measures</td>
<td>1-4 (4)</td>
<td>5-20 (16)</td>
<td>21-48 (28)</td>
<td>49-74 (26)</td>
<td>75-80 (6)</td>
<td>81-96 (16)</td>
<td>97-101 (5)</td>
</tr>
<tr>
<td>Chinese Mode(s)</td>
<td>C-yu (penta.)</td>
<td>C-yu (penta.)</td>
<td>C-yu (penta.) → G-yu (penta.)</td>
<td>G-yu (Chung)</td>
<td>G-yu (Yü) → D-yu (Yü)</td>
<td>D-yu (penta.)</td>
<td>A-yu (penta.)</td>
</tr>
<tr>
<td>Tempo</td>
<td>Dotted half note = 86</td>
<td>Dotted half note = 56</td>
<td>Dotted half note = 86</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Development

<table>
<thead>
<tr>
<th>Section</th>
<th>C (Episode)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meter</td>
<td>12</td>
</tr>
<tr>
<td>Measures</td>
<td>102-139 (36)</td>
</tr>
<tr>
<td>Mode(s)</td>
<td>A-yu (Yün) → C-gong (penta.) (m. 118) → E-yu (Yün) → G-gong (penta.) (m. 136)</td>
</tr>
<tr>
<td>Tempo</td>
<td>Dotted quarter = 96</td>
</tr>
</tbody>
</table>

### Recapitulation

<table>
<thead>
<tr>
<th>Section</th>
<th>A (Refrain 4)</th>
<th>Trans.</th>
<th>B (Episode)</th>
<th>Trans.</th>
<th>A (Refrain 5)</th>
<th>Coda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meter</td>
<td>6</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mode(s)</td>
<td>C-yu (penta.)</td>
<td>C-yu (penta.)</td>
<td>C-yu (Chung)</td>
<td>C-yu (Yü) → G-yu (Yü) → C-yu (penta.)</td>
<td>G-yu (penta.)</td>
<td>C-yu (penta.)</td>
</tr>
<tr>
<td>Tempo</td>
<td>Dotted half note = 96</td>
<td>Dotted half note = 56</td>
<td>Dotted half note = 96</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1.4 Chinese Scales and Modes in *Ballade*

Chen frequently constructs his pieces on Chinese modes. To organize the modes, he resorts to the western tonal scheme of a classical form. In *Ballade*, he utilizes a prototype classical rondo-sonata form to organize the modes. The scheme gives the piece an arch-shaped contour. Table 1-1 above shows that the rondo comprises four refrains and three episodes plus one refrain hidden in the second subsection of section C. His insistence for a tonal organization of the pentatonic scales is an important element of his music style, which is also presented in his other piano compositions.\textsuperscript{18} Chen’s use of pitch structures as observed in *Ballade* for two pianos can be summarized in the following manner.

Introduction of Chinese Scales

There are three major types of Chinese scales: pentatonic (five notes), hexatonic (six tones) and heptatonic (seven tones) scales. Both hexatonic and heptatonic scales have evolved from the pentatonic scale and each of the categories has several modes.\textsuperscript{19} There are five modes of pentatonic scales, ten modes of hexatonic scales, and twenty-one modes of heptatonic scales.\textsuperscript{20}

The pentatonic scale contains five fixed pitches, and each pitch also represents a specific mode: *Gong* mode, *Shang* mode, *Jiao* mode, *Zhi* mode, and *Yu* mode. Each pentatonic scale has three major 2\textsuperscript{nd}s and two minor 3\textsuperscript{rd}s (see *Example 1-1*).\textsuperscript{21}

\textsuperscript{19} Chiang, “A Study of Piano Works by *Formusica,*” 34.
\textsuperscript{20} Ming-Huei Lin, *The New Direction of Chinese Music* (Fu Wen: Taipei, Taiwan), 21.
\textsuperscript{21} Ibid., 29.
Example 1-1: The five modes of pentatonic scales

The hexatonic scale is developed from the pentatonic scale by adding a pitch Ching-jue which is placed a minor 2\textsuperscript{nd} above Jue (between Jue and Zhi), or Bian-gong, placed a minor 2\textsuperscript{nd} below Gong (between Yu and Gong). Therefore, every hexatonic scale contains a minor 2\textsuperscript{nd} (see Example 1-2).\textsuperscript{22}

Example 1-2: Ten modes of hexatonic scales\textsuperscript{23}

\textsuperscript{22} Ibid., 46.
\textsuperscript{23} This example is modified from page 47 of Ming-Huei Lin’s The New Direction of Chinese Music and page 35 of Tien-Yi Chiang’s “A study of piano works by Formusica: The new Taiwan Music Piano Works, Volumes I-VII.”
The heptatonic scale has three types: Ya-yue, Ching-yue, and Yan-yue. The heptatonic scale is also developed from the pentatonic scale by adding two tones with ornamental functions. “These two added notes naturally create the two minor 2\textsuperscript{nd} intervals that have become a recognizable aural characteristic of the heptatonic scale.”\textsuperscript{24} The added tones are placed between Jue and Zhi and Yu and Gong, respectively. In the Ya-yue heptatonic scale, the added tones are Bian-zhi and Bian-gong. In the Ching-yue scale, the added tones are Ching-jue and Bian-gong. In the Yan-yue scale, the added tones are Ching-jue and Jun (see Example 1-3).\textsuperscript{25}

Example 1-3: Three types of heptatonic scales, Gong mode.

Like western tonal compositions, the reference note of a piece that is the final note of the scale and is constructed on any type of the Chinese scale is perceived as the tonic. Along with the other notes contained in the piece, the listener will be able to find out the mode of the Chinese scale on which the piece is constructed.\textsuperscript{26} Western key signature(s) may be adapted to the use of a Chinese scale to indicate the Gong. Consider, for example, Ballade is based upon a ‘C’ pentatonic scale in the Yu mode (‘C-Eb-F-G-Bb’). Although the tonic of the scale is ‘C,’ the key signature is going to include three flats (‘Bb,’ ‘Eb,’ ‘Ab’) since ‘Eb’ is the Gong in this particular mode.\textsuperscript{27}

\textsuperscript{24} Chiang, “A study of piano works by Formusica,” 36.
\textsuperscript{25} Lin, New Direction of Chinese Music, 53.
\textsuperscript{26} Ibid., 22-23.
\textsuperscript{27} Chiang, “A study of piano works by Formusica,” 38.
The Chinese Scales Used in *Ballade*

Chen utilizes all three types of Chinese scales in *Ballade*. The pentatonic scales on mode *yu* (presented as “tonic-*yu* penta.” in the music examples) are used in the refrains except three places—subsection I and III of section C, in which mode *gong* is used. The four tonics of the *yu*-mode pentatonic scale in the refrains are organized as an ascending cycle of 5ths ‘C-G-D-A’ (see Example 1-4).

Example 1-4: Four tonics of the *yu*-mode pentatonic scale in the refrains of *Ballade* by Mao-Shuen Chen.

![Pentatonic scale](image)

In the episodes (section B and C), Chen uses all three types of heptatonic scales. In section B and its transition to refrain 2 in the exposition, he uses *Ching-yue* type and *Ya-yue* type respectively. In section C, he focuses on *Yan-yue* scale (see Table 1-2).

*Yu*-mode *Ching-yue* scale (presented as “tonic-*yu* Ching.” in the music examples) appears with two different tonics in the episodes. *G-yu Ching-yue* scale occurs in section B of the exposition (m.49-74) while *C-yu Ching-yue* scale occurs later in section B of the recapitulation (m.242-267) (see Example 1-5).
Example 1-5: Yu-mode Ching-yue scale on ‘C’ and ‘G’ in section B of the exposition and recapitulation in Ballade by Mao-Shuen Chen.

![Ching-Yue Scale](image)

Yu-mode Ya-yue scale (presented as “tonic-yu Ya.” in the music examples) appears with four different tonics in the transitions of the exposition and recapitulation. G-yu Ya-yue scale occurs in the transition to refrain 2 and to refrain 5 (m. 75, m. 268), D-yu Ya-yue scale appears in the transition to refrain 2 (m. 75), and C-yu Ya-yue scale occurs in the transition to refrain 5 (m. 268) (see Example 1-6).

Example 1-6: Yu-mode Ya-yue scale on ‘C’, ‘G’ and ‘D’ in the transitions of the exposition and recapitulation in Ballade by Mao-Shuen Chen.

![Ya-yue scale](image)

Yu-mode Yan-yue scale (presented as “tonic-yu Yan.” in the music examples) appears with four different tonics in the subsections of section C in the order of ‘A-E-A-D-G’. A-yu Yan-yue scale appears in Subsection I (m. 102) and the transition to subsection III (mm. 161-162). E-yu Yan-yue scale appears in subsection I (mm. 124-135). D-yu Yan-yue scale appears in the transition to subsection III (mm. 163-164). G-yu Yan-yue scale appears in the transition to subsection III (mm. 165-166) (see Example 1-7).
Example 1-7: Yu-mode Yan-yue scale on ‘G,’ ‘D,’ ‘A’ and ‘E’ in the subsections of section C in *Ballade* by Mao-Shuen Chen.

![Yan-yue scale](image)

Chen also uses the hexatonic scale. The hexatonic scale is in *gong* mode (presented as “tonic-gong hexa.” in the music examples) and it appears in the later part of section C on three different tonics in the order of ‘Eb-Ab-Bb.’ Eb-*gong* hexatonic scale appears in the transition to subsection III (mm. 167-171). Ab-*gong* hexatonic scale (mm. 172-181) and Bb-*gong* hexatonic scale (mm. 182-185) both appear in subsection III (see Example 1-8).

Example 1-8: Gong-mode hexatonic scale on ‘Ab’, ‘Eb’ and ‘Bb’ in section C in *Ballade* by Mao-Shuen Chen.

![Hexatonic scale](image)
Note the progression of main tones for the whole piece is ‘C-G-D-A-E-A-D-G-(Eb-Ab-Bb-Eb)-C-G-C’. The main tone goes up by the circle of ascending 5<sup>th</sup> s until ‘E,’ which takes place in subsection I of section C (m. 124) that is approximately one-third of the whole piece, then it goes back down. Before landing back on the home key ‘C’, Chen inserts a I-IV-V-I progression based on ‘Eb,’ the gong note of C-yu (penta.), in preparation for the return of C-yu.

Methods for Mode Shifts

The mode shift can be quite imperceptible in Chinese modal scales. In this piece, Chen frequently shifts modes that share many common tones, mostly by canceling some notes from the mode and adding other notes into the original scale. The methods by which Chen shifts from mode to mode can be categorized into four types.

1. Switching notes: used when the tonic of a type of scale in a certain mode is changed to another tonic of the same scale in a certain mode (e.g. C-yu (penta.) → G-yu (penta.)) (see Table 1-2).  

2. Adding notes: used when a pentatonic scale becomes a scale with added notes of the same mode (e.g. heptatonic scale) (see Table 1-2).

3. Eliminating notes: used when a hexatonic scale becomes a pentatonic scale of the same mode (see Table 1-2).

4. Changing of tonic: two modes in the same pentatonic scale but with different main tones (Eb-gong (penta.) → C-yu (penta.)) (see Table 1-2).  

---

28 Lin, *New Direction of Chinese Music*, 75
29 Ibid., 14
Table 1-2: Mode shifts in *Ballade* by Mao-Shuen Chen.

<table>
<thead>
<tr>
<th>Method</th>
<th>Location</th>
<th>Mode shift</th>
<th>Pitch Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Switching Notes</strong></td>
<td><strong>Exposition</strong></td>
<td>C-(y) (penta.) (\rightarrow) G-(y) (penta.)</td>
<td>Switch ‘E(\sharp)’ to ‘D’</td>
</tr>
<tr>
<td>Transition to section B (m. 28)</td>
<td></td>
<td>G-(y) ((Ch)i)ng) (\rightarrow) G-(y) ((Y)(a))</td>
<td>Switch ‘E(\sharp)’ to ‘E-natural’</td>
</tr>
<tr>
<td>Transition to refrain 2 (m. 75)</td>
<td></td>
<td>G-(y) ((Y)(a)) (\rightarrow) D-(y) ((Y)(en))</td>
<td>Switch ‘B(b)’ to ‘B-natural’</td>
</tr>
<tr>
<td>Transition to refrain 2 (m. 75)</td>
<td></td>
<td>D-(y) (penta.) (\rightarrow) A-(y) (penta.)</td>
<td>Switch ‘F’ to ‘E’</td>
</tr>
<tr>
<td><strong>Development (Section C)</strong></td>
<td></td>
<td>G-g(o\ng) (penta.) (\rightarrow) A-(y) (penta.)</td>
<td>Switch ‘B’ to ‘C’</td>
</tr>
<tr>
<td>Transition to refrain 3 (m. 142)</td>
<td></td>
<td>A-(y) ((Y)en) (\rightarrow) D-(y) ((Y)en)</td>
<td>Switch ‘E’ to ‘E(\sharp)’</td>
</tr>
<tr>
<td>Transition to subsection III (m. 163)</td>
<td></td>
<td>D-(y) ((Y)en) (\rightarrow) G-(y) ((Y)en)</td>
<td>Switch ‘A’ to ‘A(b)’</td>
</tr>
<tr>
<td>subsection III (m. 172)</td>
<td></td>
<td>Eb-g(o\ng) (hexa.) (\rightarrow) Ab-g(o\ng) (hexa.)</td>
<td>Switch ‘G’ to ‘D(b)’</td>
</tr>
<tr>
<td>subsection III (m. 182)</td>
<td></td>
<td>Ab-g(o\ng) (hexa.) (\rightarrow) Bb-g(o\ng) (hexa.)</td>
<td>Switch ‘A(b)’ and ‘D(b)’ to ‘G’ and ‘D’</td>
</tr>
<tr>
<td><strong>Recapitulation</strong></td>
<td></td>
<td>C-(y) ((Ch)i)ng) (\rightarrow) G-(y) ((Y)(a))</td>
<td>Switch ‘A(b)’ and ‘E(\sharp)’ to ‘A-natural’ and ‘E-natural’</td>
</tr>
<tr>
<td>Section B to refrain 5 (m. 268)</td>
<td></td>
<td>G-(y) (penta.) (\rightarrow) C-(y) (penta.)</td>
<td>Switch ‘D’ to ‘E(\sharp)’</td>
</tr>
<tr>
<td>refrain 5 (m. 290)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(cont.)
Table 1.2 (cont.)

<table>
<thead>
<tr>
<th>Method</th>
<th>Location</th>
<th>Mode shift</th>
<th>Pitch Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adding notes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exposition</td>
<td></td>
<td>G-yu (penta.) → G-yu (Ching)</td>
<td>Add ‘A’ and ‘Eb’</td>
</tr>
<tr>
<td>Development (Section C)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subsection I</td>
<td>A-yu (penta.) → A-yu (Yen)</td>
<td>Add ‘Bb’ and ‘F’</td>
<td></td>
</tr>
<tr>
<td>(mm. 106-107)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subsection I</td>
<td>C-yu (penta.) → E-yu (Yen)</td>
<td>Add ‘F’, ‘B’ and ‘D’</td>
<td></td>
</tr>
<tr>
<td>(m. 122)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transition to subsection III</td>
<td>A-yu (penta.) → A-yu (Yen)</td>
<td>Add ‘Bb’ and ‘F’</td>
<td></td>
</tr>
<tr>
<td>(m. 161)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recapitulation</td>
<td></td>
<td>C-yu (penta.) → C-yu (Ching)</td>
<td>Add ‘D’ and ‘Ab’</td>
</tr>
<tr>
<td>Section B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(mm. 246-252)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(cont.)
### Table 1.2 (cont.)

<table>
<thead>
<tr>
<th>Method</th>
<th>Location</th>
<th>Mode shift</th>
<th>Pitch Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eliminating notes</td>
<td>Exposition</td>
<td>D-(yu) ((Ya)) (\rightarrow) D-(yu) (penta.)</td>
<td>Eliminate ‘E’ and ‘B-natural’</td>
</tr>
<tr>
<td>Development (Section C)</td>
<td>Subsection I (m. 118)</td>
<td>A-(yu) ((Ching)) (\rightarrow) C-(yu) (penta.)</td>
<td>Eliminate ‘Bb’ and ‘F’</td>
</tr>
<tr>
<td></td>
<td>Subsection I (m. 136)</td>
<td>E-(yu) ((Yen)) (\rightarrow) G-(gong) (penta.)</td>
<td>Eliminate ‘F’ and ‘D’</td>
</tr>
<tr>
<td></td>
<td>Transition to subsection III (m. 166)</td>
<td>G-(yu) ((Yen)) (\rightarrow) Eb-(gong) (hexa.)</td>
<td>Eliminate ‘D’</td>
</tr>
<tr>
<td></td>
<td>Subsection III (m. 186)</td>
<td>Bb-(gong) (hexa.) (\rightarrow) Eb-(gong) (penta.)</td>
<td>Eliminate ‘D’</td>
</tr>
<tr>
<td>Recapitulation</td>
<td>Transition to refrain 5 (m. 270)</td>
<td>G-(yu) ((Ya)) (\rightarrow) G-(yu) (penta.)</td>
<td>Eliminate ‘A’ and ‘E’</td>
</tr>
<tr>
<td>Changing the tonic</td>
<td>Recapitulation</td>
<td></td>
<td>The two modes share the same 5 tones.</td>
</tr>
</tbody>
</table>

### 1.5 Discussion of Individual Sections of Ballade

**Exposition: Section A (Refrain) (mm. 1-20)**

The refrain comprises two melodic motives. The first motive or the introductory motive represents the vendor that sells oyster noodles ‘Eb-F-G-G’ (mm. 1-4) while the second motive represents the one who sells steamed buns ‘G-C-C-Bb-G-C’ (mm. 5-7). The introductory motive is constructed on Eb-\(gong\) and the second motive on ‘C’ pentatonic scale in \(yu\) mode. Chen’s music creatively expresses the vendors’ peddling through its melodic contours, rhythmic design, dynamic indication and its accompaniment.
The dynamic for both motives is *forte*, showing the vitality of the two vendors in the early morning. The first motive in particular with its rhythmic unison between the two pianos makes for a grand opening.

**E-A-Mi-Sua** (oyster thin noodles) motive: ‘Eb-F-G-G’ (mm. 1-4)

The first melodic motive, with its rising major 2\(^{\text{nd}}\) and falling minor 7\(^{\text{th}}\), corresponds with the intonation of “E-A-Mi-Sua” in the Taiwanese dialect, Hoklo. Note that Chen intentionally lengthens ‘Eb’ and ‘G’ as the vendors in real life tend to prolong the ‘E’ and ‘Sua’ when selling their oyster thin noodles (see *Example 1-9*).

Example 1-9: E-A-Mi-Sua (oyster thin noodles) motive, mm. 1-4, *Ballade* by Mao-Shuen Chen.

The rhythmic division of the introductory E-A-Mi-Sua motive poses a challenge for the ensemble. Chen divides the first two measures with 6 quarter notes each. In the next measure (m. 3), however, Chen divides it into 4 dotted quarter notes. The performers must count the different rhythmic divisions concurrently to ensure exact coordination between the parts.
**Man-To** (steamed buns) motive: ‘G-C-C-Bb-G-C’ (mm. 5-7)

The second melodic motive presents the vendor’s calling “Man-To, Gi-Qi-Man-To (steamed buns, machine-made steamed buns)” with its falling perfect 5th’s between the first and the last two notes. The ‘Man’ syllable is prolonged and accentuated as spoken in the Shan-Dong accent (see Example 1-10).³⁰

The Man-To motive is extended to form a long melody shared by both pianos. The range of the melody covers five octaves, from ‘C₂’ to ‘C₆.’³¹

The Rolling Wheels motive (the accompaniment of Man-To motive) represents the rolling wheels of a cart. It is made up of a series of eighth notes, vividly portraying the rolling wheels of the bicycles and carts through the falling and rising two-note groups. The wider intervals (5th’s, 7th’s) of the two-note groups suggest the rolling of bigger wheels and the narrower intervals (2nd’s, 3rd’s, 4th’s) suggest smaller wheels. Note that the Rolling Wheels motive is constructed on the ‘E-A-Mi-Sua’ motive. The juxtaposition of the ‘E-A-Mi-Sua’ motive, Rolling Wheels motive and ‘Man-To’ motive convey Chen’s belief that people from the two different lands can get along with each other (see Example 1-10).

Example 1-10: Rolling Wheels motive in piano I and Mao-To motive in piano II, mm. 5-7, Ballade by Mao-Shuen Chen.

³⁰ Shan-Dong is a province of Mainland China.
³¹ The pitch naming system in this dissertation uses “scientific pitch notation,” in which the lowest ‘C’ on an 88-key piano is named ‘C₁,’ the ‘C’ that is an octave higher than ‘C₁’ is named ‘C₂.’ Notes between C₁ and C₂ are named accordingly and are followed by the number “1.” The “middle c” is named ‘C₄.’
After successive leaps of minor 7th's, the unison melody of the Rolling Wheels turns into three parts and becomes a 3-beat ostinato which will consistently recur in subsequent sections with different melodic patterns (mm. 9-11, mm. 24-25, mm. 40-42, mm. 85-87, mm. 93-94, mm. 97-100, mm. 147-151, mm. 167-170, mm. 172-179, mm. 182-193).

The opposed rhythmic division between the Man-To and Rolling Wheels motive may create a challenge for the ensemble. Consider, for example, in m. 8, the Rolling Wheels motive played by piano I is divided into 6 quarter notes while the Man-To motive played by piano II is divided into 4 dotted quarter notes, forming a 3:2 cross-rhythm (see Example 1-11). The other similar instance in the same section is found in mm. 13-18 where piano I divides the measure into 3 half notes and piano II divides the measure into 2 dotted half notes (see Example 1-12).

Example 1-11: 3-beat ostinato of Rolling Wheels motive (mm. 9-11) in Ballade by Mao-Shuen Chen.
Example 1-12: Rhythmic opposition between the Man-To and Rolling Wheels motives in section A, mm. 13-14, *Ballade* by Mao-Shuen Chen.

![Diagram of musical notation]

Note both eighth notes and the melody in consecutive octaves should be connected smoothly. To play the two different figurations with a legato articulation as indicated on the score, the damper pedal should be used with discretion. The pianist who plays the Rolling Wheels motive is suggested to use half-pedaling on the first and third beat of the Rolling Wheels motive. Such pedaling creates the harmonic support for the Man-To motive without obscuring the active motion and the meandering line of the Rolling Wheels motive. The pianist who plays the melody in consecutive octaves that extends from the Man-To motive is suggested to pedal on each of the octaves to make the melody sing more and give it a richer quality.

**Exposition: Transition (mm. 21-48)**

At m. 21, the transition begins with the two pianos playing the driving eighth notes in parallel motion. There are four exceptions to this that occur as a result of the intervallic structure of a pentatonic scale: when notes Gong (‘Eb’) and Jue (‘G’) of C-yu pentatonic scale are placed vertically, they form a minor 6th. The parallel motion between the two pianos seems to portray that the two vendors are standing side by side (see Example 1-13).
Example 1-13: The transition begins with both pianos moving in parallel motion (with four exceptions), mm. 21-22, *Ballade* by Mao-Shuen Chen.

![Parallel motion in perfect 8ths.](image)

Exceptions occur when note *Gong* (Eb) and *Jue* (G) are placed vertically, forming a m6th.

**Exposition: Section B (Episode) (mm. 49-74)**

There is no indication that the tempo slows down before section B. Piano II decides the tempo of section B (a dotted half note equals 56). One way to measure the tempo in section B is to play it a bit slower than one second per dotted half note.

Section B suggests the scene of two ladies talking with a fortuneteller about their marriage problems on their way to the temple. Both motives are based on the *Ching-yue* type of heptatonic scale in mode *yu* on ‘G.’ The Fortuneteller motive is the *ostinato* in the second piano. The right hand of the *ostinato* starts with an imitation of a perfect 5th above the left hand. The Two Ladies motive is the syncopated melody in the first piano. The syncopation suggests the ladies’ coquetry (see *Example 1-13*).\(^{32}\)

These two motives are closely related to each other in that the melody representing the two ladies is constructed on the right-hand melody of the Fortuneteller’s motive, representing the interaction between the two characters. The two notes ‘D-Bb’ of the right-hand melody in the *ostinato* are respectively the initial and ending note of the first phrase played by the first piano. Likewise, the following two notes ‘C-D’ of the *ostinato* are pulled apart to be inserted in a wavy melody to form the second phrase of the

---

\(^{32}\) Personal interview with Chen in his studio on February 20, 2009, Taipei.
first piano, in which there are four notes echoing the \textit{ostinato} ‘G-G-F-D’ (see \textit{Example 1-14}).

\textbf{Example 1-14:} The Fortuneteller’s motive and the Two Ladies’ motive in section B, mm. 49-53, \textit{Ballade} by Mao-Shuen Chen.

Chen intentionally made section B (mm. 49-74) contrary to the refrain theme in section A (mm. 5-20) in the following aspects. In his use of modes, he gives section B a more decorative \textit{Ching-yue}-type heptatonic scale in mode \textit{yu}. Unlike what Chen did in the refrain, he is not in a hurry to reveal the scale in the beginning. One hears six notes of the heptatonic scale for the first ten measures before all seven notes sound. Rhythmically, the refrain features relentless eighth notes (Rolling Wheels motive) as the accompaniment, giving the theme a strong momentum to go forward. Opposite to this, the \textit{ostinato} accompaniment in the episode features quarter notes and provides a steady and stable accompaniment. In terms of texture, section B is more transparent with a more restricted use of registers in comparison to the chordal and massive refrain.

The bridge to the second presentation of the Fortuneteller and the Two Ladies’ motive (mm. 59-60 and mm. 63-64) is formed by a superimposition of a series of repetitive notes in syncopation played by piano I and a two-part contrapuntal melody played by piano II which also employs syncopation in the left hand. The intricate rhythmic design of these two passages poses an ensemble challenge which requires both pianists to count carefully and listen to each other. The transition to refrain 2 (mm. 74-80) is also formed by the same material and the mode shifts from G-\textit{yu} Ya-yue scale to D-\textit{yu} Ya-yue scale by raising ‘Eb’ and ‘Bb’ a half step above(see \textit{Example 1-15}).
Example 1-15: The transition to refrain 2, mm. 74-78, *Ballade* by Mao-Shuen Chen.

Note the dynamic level changes almost with every phrase in both pianos. Also, the pedal use in this section should be careful not to detract from the clarity of the polyphonic texture.

Refrain 2 is identical to refrain 1 except for it is in D-yu pentatonic scale. In its transition to section C (m. 95), a melodic fragment of the series of eighth notes that features an ascending minor 7th and a major 2nd foreshadows the Child’s motive in section C. According to Chen, this transitional passage was written after he had set up the Child’s motive and he deliberately made a musical connection between the two sections (see Example 1-16).
Example 1-16: The transition to section C foreshadows the Child’s motive in section C, mm. 95-96, *Ballade* by Mao-Shuen Chen.

![Image of music notation]

The melodic fragment of the transitional passage foreshadows the Child’s motive in the subsection I of Section C.

**Development: Section C (mm. 102-195)**

This development-like section can be divided into three subsections. There are new materials in subsection I and III, and reflections of old materials in subsection II. One can hear in the music that the atmosphere in front of the temple is intensifying.

Subsection I (mm. 102-139) is formed by the Taoist priest’s reciting spells and the Child’s motive. The composer begins with fast repetitive notes in triplets in the middle register that imitates the way a Taoist priest recites the spells (piano II). It is joined by a song-like melody in A-yu Yan-yue scale in the higher register that represents the innocent child who was healed by the Taoist (piano I). Note that in the Child’s motive, Chen creates an urge for the melody to be resolved as the child’s disturbing mind needs to be recovered by starting the Child motive not on the tonic ‘A’ but on a perfect 5th ‘G’ and ‘D.’ Chen also creates a conflict between the Taoist and the Child by setting up a cross-rhythm in 3:2 between the two motives and melodically, making the Taoist focus on repetitive notes while the Child motive features melodic lyricism. The ensemble again faces the challenge of coordinating the cross-rhythm patterns between the parts (see *Example 1-17*).

Just as on the other sections of *Ballade*, there is no pedal marking in this subsection. However, in order to mimic the clear articulation of a Taoist’s reciting the spells, the author suggests to pedal briefly
on the down beat where the right hand ‘A’ of the Taoist’s motive falls upon or on the down beat that contains the three notes ‘A-D-A’ in the left hand. The Child’s motive, on the contrary, encourages fuller pedaling to enhance the singing quality of the melody.

Example 1-17: Subsection I of section C, the Taoist priest’s spells recite and the Child’s motive in 12/8, mm. 101-107, Ballade by Mao-Shuen Chen.

The mode shift from A-yu Yan-yue scale to C-gong pentatonic scale begins at m. 110 and 118 (see Table 1-2) by emphasizing ‘C’ and its dominant ‘G’ (Zhi). Therefore, although the two modes share the same tones, the change of tonic is perceptible. In the first mode shift (mm. 110-113), the melody stops on ‘G’ and ‘D’ that equates to a half cadence in ‘C’ (m. 113). In the second mode shift, the melody successfully lands on ‘C’ (m. 121). The shift from yu mode to gong mode suggests that the Taoist has gradually helped to recover the child’s lost spirit (see Example 1-18).
Example 1-18: Subsection I of section C, the mode shift from A-\textit{yu} to C-\textit{gong}, mm. 118-121, \textit{Ballade} by Mao-Shuen Chen.

After the Child’s motive is transposed to a 5\textsuperscript{th} above to E-\textit{yu} \textit{Yan-yue} scale (m. 124), in m. 141, the Rolling Wheels motive returns with a change in meter (12/8 $\rightarrow$ 6/4) and a quick descent to the bass. It is followed by a swift surge up to the high register that highlights rising consonant intervals (perfect 4\textsuperscript{th}s, perfect 5\textsuperscript{th}s, octaves) and prepares for the return of the refrain theme (E-A-Mi-Sua motive, Man-To motive and the Rolling Wheels motive). The tonic of the refrain in subsection II of section C subsection II (mm. 145-160) is a perfect 5\textsuperscript{th} above that in refrain 2 (A-\textit{yu} pentatonic scale). With the return of the refrain theme beginning with $ff$ and the previous measure (m. 144) having rising and leaping intervals, it is suggested to use a full damper pedal, that is, press the damper pedal down to the bottom in order to enforce the dynamic increase (see \textit{Example 1-19}).
Subsection III (mm. 172-195) is the most thriving and flourishing section of the whole piece. It is formed by a combination of prior and new activities in front of the temple.

In mm. 161-171, the transition features the Rolling Wheels motive in parallel perfect 5\textsuperscript{th}s and the mode shifts to a descending circle of perfect 5\textsuperscript{th}s from A-\textit{yu} (\textit{Yan}) to G-\textit{yu} (\textit{Yan}). The Rolling Wheels motive is then fixed as an \textit{ostinato}, upon which a new motive featuring repetitive chords appears in the second piano, mimicking the sound of hammering (mm. 167-171). Soon the juxtaposition of motives deriving from the refrain (Man-to and Rolling Wheels motive) and a new lyrical melody reminiscent of the Two Ladies and the Child’s motive follows (mm. 172-181). The superimposition of prior and new materials results in a complex texture that creates rich sonorities and vividly portrays the bustling scene on the temple street (see Example 1-20).
Example 1-20: The transition to subsection III, mm. 168-173, *Ballade* by Mao-Shuen Chen.

Starting from the repetitive chords that mimic the sound of hammering in m. 170 to the end of subsection III in m. 195, the two-piano ensemble encounters additional 3:2 cross-rhythms. The left hand of piano I divides a dotted half note into three quarter notes against the two dotted quarter notes played by piano II.

**Recapitulation (mm. 196-320)**

The three major sections in the recapitulation (refrain 4, section B and refrain 5) restate the three major sections in the exposition (refrain 1, section B and refrain 2) with some changes in the mode. In the recapitulation, section B that features the Fortuneteller’s motive and the Two Ladies’ motive is cast in C-yu Ching-yue scale. This is a common practice that the subsidiary theme in a sonata form returns to the home key in the recapitulation.

In the *coda*, the two central motives- E-A-Mi-Sua and Man-To- are juxtaposed and repeated in a
canonic manner and together they lead into a closure that recalls the grand opening of *Ballade* (see Example 1-21).

Example 1-21: The juxtaposition of E-A-Mi-Sua and Man-To motive in the *coda*, mm. 310-320, *Ballade* by Mao-Shuen Chen.
1.6 Performance Issues in *Ballade*

The discussion of individual sections mentions several challenges to the performer. These include 2:3 cross rhythms between the two pianos (see Examples 1-11, 1-12, 1-15, 1-17, 1-20), the changing of tempo between different sections (see Example 1-14), the absence of pedal markings and the irregular shifts of the hand positions when playing the Rolling Wheels motive.

The absence of pedal markings by Chen in *Ballade* is not unusual. In most of Chen’s piano music, the performers are given the freedom to decide the pedaling that they feel is appropriate for the music. The discussion of individual sections includes the author’s suggestions for pedaling (see Example 1-17, 1-18, 1-19). Those who wish to perform *Ballade* are encouraged to explore other possibilities for the pedaling within a principle of preserving the clarity of the polyphonic texture, enhancing the singing quality of the tones and to create a balanced harmonic support.

The unusual shifts of the hand positions illustrated by the Rolling Wheels motive in *Ballade* has always been an important feature in Chen’s pianistic writing, an observation also cited by En Wang.³³ The Rolling Wheels motive is made up of fast arpeggios in eighth notes that cover a wide range of register, with irregular pitch patterns formed mostly by leaping intervals. As the Rolling Wheels motive is played by both hands in unison and should be articulated as *legato*, it is critical to find the appropriate fingerings for both hands in order to make the shifts of hand positions smooth and to ensure note accuracy. Otherwise, it is difficult to achieve the tempo of quarter note equals 86 (exposition) or quarter note equals 96 (development and recapitulation) that Chen has requested in the score. A successful performance of *Ballade* relies heavily on the mastering of the Rolling Wheels motive. Similar passages formed by the leaping intervals in the Rolling Wheels motive can be found in some of Chen’s earlier compositions, such as the fourth movement of his *Piano Sonata No. 1* (1960) (see Example 1-22).

---

³³ Personal interview with En Wang in her studio on February 20, 2009, Taipei.
Example 1-22: mm. 148-166, an excerpt from the fourth movement of *Piano Sonata No. 1* by Mao-Shuen Chen illustrates Chen’s use of asymmetrical rhythms and difficult shifts of the hand positions for both hands.

### 1.7 Summary of Ballade

*Ballade* demonstrates Chen’s compositional style especially in his preference for classical form, use of Chinese modes, use of cross-rhythms and polyphonic textures and his pianistic writing. These elements are present in most of his works for piano.³⁴

*Ballade* is a reminiscent piece. With its Chinese modes and motives that are inspired by the street scenes which still take place in many rural areas of Taiwan, it is a composition that can be understood and enjoyed by the general public.

---

³⁴ Chen composed a collection of pieces with particular emphasis on cross-rhythms of the following kinds: 3:2, 3:4, 5:2, 5:3, 7:2, 7:3. This collection is published by Wach School of Music and is available for purchase.
CHAPTER 2

QUIET JOY

By GORDON SHI-WEN CHIN

Duration: ca. 5 minutes (132 measures)
Date of Composition: 1999

2.1 Biography of Gordon Shi-Wen Chin

Gordon Shi-Wen Chin (b. 1957), currently serves as the conductor and music director of the Yin-Qi Chorus and Symphony Orchestra in Taipei. Chin is a faculty member of National Taiwan Normal University and is one of the most active composers in Taiwan.

Born in Do-Lio of Yun-Ling County, Taiwan, Chin and his family moved to Japan, where he studied piano and completed his high school education. In 1976, Chin attended Biola University in Los Angeles, and earned double degrees in composition and piano. Later, Chin earned a DMA degree in composition from the Eastman School of Music, studying composition with Samuel Adler and Christopher Rouse.

Chin’s works have been commissioned and performed worldwide by renowned ensembles such as the Vancouver Symphony Orchestra, the Asia Pacific Orchestra in Los Angeles, the San Diego Symphony Orchestra, the Yuodia Chorus and Orchestra in Tokyo, Ensemble 2e2m of France, and the Amadinda Percussion Group of Hungary, among many others.

Chin’s major compositions include four symphonies, an opera ("Mackay"), a cantata, a violin concerto, a piano concerto, numerous choral works, chamber works, five percussion quartets, and works for solo instruments. His works have received international recognition. Timothy Mangan’s writing in the Los Angeles Times has described Chin’s Symphony No.3 “Taiwan” (1995) as “a confident master of the Western modernistic large orchestral idiom.” Chin's Phantasy for Violin and Piano (1995) was praised by John Ardoin of the Dallas Morning News as "a strong, assured piece of writing that flirted with atonality
but had no trouble in communicating its ideas to an audience with skill and poise." Valerie Scher, the music critic from the San Diego Tribute, commented on Chin’s *Formosa Seasons* for violin and string orchestra (2000) as “combined edgy vitality with confident handling of string sonorities.”


### 2.2 Introduction of *Quiet Joy*

*Quiet Joy* was originally titled “Wandering in Mountain Da-Tun.” Like *Formosa Seasons* for solo violin and string orchestra composed the next year, *Quiet Joy* is a reflection on the trips that Chin’s family took to Mt. Da-Tun when his two children were little. Since the pianist who commissioned the piece premiered the piece with her own daughter, Chin renamed the piece “Quiet Joy” to reflect the emotion that he had when he composed this piece and to evoke the family affection between the pianist and her daughter.

As in *Formosa Seasons* for violin and string orchestra, this piece demonstrates important characteristics of Chin’s compositional style, especially his approach to manipulating materials and his perspective on form.

In Chin’s book, *Towards a Broader Vision of Composition: from Compositional Experiences to Compositional Goals*, he used the word “divergence” to name the approach he developed to manipulate materials when he composed *Formosa Seasons*. The method of “divergence,” Chin explains, means that he presents the materials of a piece as a whole in the beginning, and then cuts those materials into segments, which he calls “originating cells.” The cells are developed, extended or varied throughout the

---


36 Mt. Da-Tun is located in northern Taiwan.

37 Personal interview with Chin in his studio on March 3, 2009, Taipei.
composition. In other words, the whole piece is based on developing, re-synthesizing and transforming those musical cells presented in the beginning to “form new and different entities.”\(^\text{38}\) This approach contributes to a strong sense of unity of a piece while variety is presented through the transformations of the cells.

Chin used the same approach in *Quiet Joy*. There are two major contrasting materials, labeled as Material A and Material B in *Quiet Joy*. Both Material A and B are presented in the very beginning in mm. 1-4. They provide the “originating cells” of *Quiet Joy* and the piece is formed by the different treatments of the two contrasting materials.

**Materials of *Quiet Joy***

Below is an introduction to the two contrasting materials that form the basis of *Quiet Joy*.

**Material A (mm. 1-3)**

The prototype of Material A (mm. 1-3) is formed by the Primary Theme (PT) with the accompaniment (PT accomp.).

The dance-like PT in triple meter (mm. 1-3, piano I) suggests g minor and features two pitch sets formed by the PT: ‘G-D-C’ (027) in m. 1 and ‘C#-D-G’ (016) in m. 2. The two pitch sets and the intervals embedded in the PT (perfect 4\(^\text{th}\), augmented 4\(^\text{th}\), major 2\(^\text{nd}\), minor 2\(^\text{nd}\)) form the basic structure of the melodies and harmonies for the whole piece. For example, the first note of the PT’s accompaniment (‘A’) forms (027) with the first two notes from the PT (‘G-D’). Other combinations can be found in subsequent sections of *Quiet Joy* (see Example 2-1).

The g-minor PT is opposed by its accompaniment (mm. 1-3, piano II) formed by broken chords of a whole tone scale on ‘A’ (‘A-B-Db-Eb-G’)\(^\text{39}\) in the right hand and the outline of a diminished 7\(^\text{th}\) chord on ‘A’ (‘A-Eb-Gb,’ the pitch ‘C’ being omitted) in the left hand. The two broken chords on the ‘A’ whole tone scale and ‘A’ diminished 7\(^\text{th}\) chord share the same pedal point (‘A’) and form an *ostinato*. The accompaniment of the opening PT thus has a faster surface rhythm over a static harmonic field (see

---

\(^{38}\) Tzu-Shan Lin, “Gordon Shi-Wen Chin, A Taiwanese Composer” (DMA diss., University of Illinois at Urbana-Champaign, 2008), 52.

\(^{39}\) Note ‘F’ is in the Primary Theme.
Note that the augmented 4\textsuperscript{th}s or diminished 5\textsuperscript{th}s (‘A-Eb’, ‘Db-G’) are highlighted in the opposing harmonies between both hands of the accompaniment. The augmented 4\textsuperscript{th} ‘A-Eb’ outlines the tonal progression of the entire piece: \textit{Quiet Joy} begins with ‘A’ in the bass (m. 1), and ends on ‘Eb’ in the bass (m. 132). The other augmented 4\textsuperscript{th} ‘Db-G’ foreshadows the accompaniment of the transposed PT in m. 5 (see Example 2-2).

In addition to the opposing harmonies between both hands of the accompaniment, an opposition in rhythm is suggested by groups of six 16\textsuperscript{th} notes in the right hand and groups of four 16\textsuperscript{th} notes in the left hand, creating an audio impression of rolling wheels under a motor (see Example 2-1).

Example 2-1: The prototype of Material A (mm. 1-3). \textit{Quiet Joy} by Gordon Shi-Wen Chin.
Example 2-2: *Quiet Joy* by Gordon Shi-Wen Chin begins with ‘A’ in the bass (m. 1), and ends on ‘Eb’ in the bass (m. 132).

![A-Eb outlines the tonal progression of Quiet Joy.](image)

Material B (m. 4)

Material B appears after Material A and contains two cells: syncopated chords and arpeggios in 16th notes (m. 4). The falling, repetitive and syncopated chords played by piano I are also formed by opposing harmonies as the accompaniment of the opening PT: ‘Ab’ whole tones (‘Gb-Ab-C-D’) is opposed by ‘Ab’ major triad (‘Ab-C-Eb’). The arpeggiated form of the syncopated chords is played by piano II (see *Example 2-4*).

The two cells in Material B also appear later in the last movement (“Spring”) of *Formosa Seasons*. In Chin’s book, he stated that the syncopated motive in *Formosa Seasons* portrays the children’s joyful skipping in the family’s trip to Mt. Yang-Ming, while the 16th-note ascending arpeggio that follows portrays the children’s exciting runs when embracing nature.⁴⁰ Considering the approximation of the dates of composition and the identical inspiration for *Formosa Seasons* (2000) and *Quiet Joy* (1999), the two cells of Material B in *Quiet Joy* quite possibly suggest similar emotions (see *Example 2-3, 2-4*).

---

Example 2-3: The opening syncopated motive in mm. 1-2 of *Formosa Seasons* by Gordon Shi-Wen Chin portrays the children’s joyful skipping. The ascending arpeggio motive in mm. 6-9 represents children’s excitement about embracing the nature.

Example 2-4: The prototype of Material B (m. 4). *Quiet Joy* by Gordon Shi-Wen Chin.

“Divergence” of Material A and B

After the first presentation of Material A and B (mm. 1-4), the two materials evolve and undergo different treatments. As evident in the discussion of individual sections, the PT is fragmented, extended, transposed, transformed, and inverted. Transformations of the PT include expansion of the intervals, change of meter and rhythm, which occur along with the transposed PT in section II and with the inverted

---

41 Examples 2-3 and 2-4 are copied from Chin’s book, *Towards a Broader Vision of Composition*, 77.
PT in section V. The different forms of the PT, along with the change of tempo and meter, articulate the structure of the piece. Therefore, Quiet Joy is divided into five sections with four transitions between them and a coda at the end. Section I (mm. 1-20) presents the original PT. Then the PT is transposed in section I, III (mm. 35-51), IV (mm. 52-101) in either 3/4 or 4/4, transformed in section II (mm. 21-34) and V (mm. 102-132) in a slower tempo (in 7/8 and 4/4, respectively) and inverted in section IV and V (in 4/4). Both the inversion in section IV and V and the transformations in section II are transposed.

The accompaniment of the PT varies with the different treatments of the PT and is changed in rhythm, harmony, texture and melodic shape. Each variant in the accompaniment gives the PT a different sense of pulse.

The syncopated chords and arpeggios of Material B are enlarged, extended and involve more shifts in register than Material A. The original meaning of Material B (children’s exciting jumps and runs) serves as a reference. The subsequent variations of Material B bring about more variations based on the children’s behavior.

2.3 Method and Form of Quiet Joy

Chin’s approach to the manipulation of the materials, which he calls “divergence” relates directly to his formal designs. For years Chin has been exploring new possibilities for form that could replace the traditional forms such as ternary or compound ternary form. In his book, Chin introduces the “principle of accumulation,” one of the principles that he uses to create the form of a piece. “Principle of accumulation” means that there is “no clear section or any specific function.” Moreover, “the original elements keep on exchanging, developing, and being transformed by rhythm, keys or range. These musical “cells” evolve as it goes on and consistently offers new meaning and direction.” For Chin, the form is like bringing out the “conclusion” at the start of the piece and taking out the elements from the conclusion for further elaboration. Chin named the structure that is formed under this principle “evolving structure.”

42 Chin, Towards a Broader Vision of Composition, 78.
44 Chin, Towards a Broader Vision of Composition, 78.
The transpositional plan of the PT (shown below) clearly illustrates Chin’s use of the “accumulation principle” to create an evolving structure for the piece: bringing out the conclusion at the very beginning, which is the transpositional plan of the PT in section I, and developing the piece by working on each segments of the plan.

The transposition levels of the Primary Theme

Below are the two tables that display the transposition levels of the PT in *Quiet Joy*. For the sake of convenience, only the first note of each transposed PT is presented in table 2-1. Table 2-2 is a more detailed version of the first table where the location and dynamic of each transposed PT are presented. Note that some transpositions of the PT are altered like a tonal answer of a fugue subject in order to function within the new pitch center.

Tables 2-1 and 2-2 show that section I provides the basic structure of the transpositional plan for the whole piece. The first transposition of the PT on ‘B’ (m. 5) is the basis for the two slower sections (II and V). Section II focuses on the transformation of the transposed PT, while section V inverts the transposed PT in section II. Moreover, the last two transpositions on ‘C’ (m. 11) and ‘F’ (m. 13) of the PT in section I are further developed in section III in a reversed order to section I (‘C-F’ in section I Æ ‘F-C’ in section III). Finally, the transpositions of the PT from m. 8 to m. 13 (original Æ perfect 4th up Æ major 2nd down) recapitulates at the point of golden ratio of the whole piece, which is the beginning of section IV, before other transposition levels of the PT are explored.

In summary, section II, III, IV and V all start with transpositions of the PT that appear in section I. They are all continuations of different segments in section I and they ‘complete’ what is left unfinished or what is cut short in section I. In addition, the last transposition on ‘F#’ serves as a leading tone to the original PT on ‘G,’ and creates a cyclic sense between the end and the opening.
Table 2-1: Transposition levels of the Primary Theme of *Quiet Joy* by Gordon Shi-Wen Chin.

<table>
<thead>
<tr>
<th>Section</th>
<th>Transposition levels of the Primary Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>I (mm. 1-14)</td>
<td>G B G C F</td>
</tr>
<tr>
<td>II (mm. 21-32)</td>
<td>B x F C</td>
</tr>
<tr>
<td>III (mm. 35-49)</td>
<td>G C F Eb A E F# → E A G# C# (inverted PT)</td>
</tr>
<tr>
<td>IV (mm. 52-100)</td>
<td>B (inverted PT) F#</td>
</tr>
<tr>
<td>V (mm. 102-132)</td>
<td></td>
</tr>
</tbody>
</table>
Table 2-2: Detailed version of the transposition levels of the Primary Theme of *Quiet Joy* by Gordon Shi-Wen Chin.

<table>
<thead>
<tr>
<th>Section</th>
<th>Location and dynamics of each transposed PT</th>
<th>Transpositional levels of the PT</th>
</tr>
</thead>
<tbody>
<tr>
<td>I (mm. 1-14)</td>
<td>(mm. 1-3, <em>mf</em>)</td>
<td>‘G’ (original)</td>
</tr>
<tr>
<td></td>
<td>(mm. 5-6, <em>mf</em>)</td>
<td>‘B’</td>
</tr>
<tr>
<td></td>
<td>(mm. 8-14, <em>mf</em>)</td>
<td>‘G’ (original)</td>
</tr>
<tr>
<td></td>
<td>(mm. 11-12, <em>mf</em>)</td>
<td>‘C’</td>
</tr>
<tr>
<td></td>
<td>(mm. 12-14, <em>mf</em>)</td>
<td>‘F’</td>
</tr>
<tr>
<td>II (mm. 21-32)</td>
<td>(mm. 21-32, <em>mp</em>)</td>
<td>‘B’ (transformed)</td>
</tr>
<tr>
<td>III (mm. 35-49)</td>
<td>(mm. 35-37, <em>p</em>)</td>
<td>‘F’</td>
</tr>
<tr>
<td></td>
<td>(mm. 37-39, <em>mf</em>)</td>
<td>‘C’</td>
</tr>
<tr>
<td></td>
<td>(mm. 40-41, <em>p</em>)</td>
<td>‘F’</td>
</tr>
<tr>
<td></td>
<td>(mm. 42-43, <em>mf</em>)</td>
<td>‘C’</td>
</tr>
<tr>
<td>IV (mm. 52-100)</td>
<td>(mm. 52-55, <em>mp</em>)</td>
<td>‘G’ (original)</td>
</tr>
<tr>
<td></td>
<td>(mm. 56-57, <em>mp</em>)</td>
<td>‘C’</td>
</tr>
<tr>
<td></td>
<td>(mm. 57-58, <em>mp</em>)</td>
<td>‘F’</td>
</tr>
<tr>
<td></td>
<td>(mm. 61-63, <em>mf</em>)</td>
<td>‘Eb’</td>
</tr>
<tr>
<td></td>
<td>(mm. 64-65, <em>mp</em>)</td>
<td>‘A’</td>
</tr>
<tr>
<td></td>
<td>(mm. 66-68, <em>mp</em>)</td>
<td>‘E’</td>
</tr>
<tr>
<td></td>
<td>(mm. 78-80, <em>mf</em>)</td>
<td>‘F#’ (then inverted)</td>
</tr>
<tr>
<td></td>
<td>(mm. 88-90, <em>p</em>)</td>
<td>‘E’</td>
</tr>
<tr>
<td></td>
<td>(mm. 90-91, <em>p</em>)</td>
<td>‘A’</td>
</tr>
<tr>
<td></td>
<td>(mm. 96-97, <em>mp</em>)</td>
<td>‘G#’</td>
</tr>
<tr>
<td></td>
<td>(m. 98, <em>mp</em>)</td>
<td>‘C#’</td>
</tr>
<tr>
<td>V (mm. 102-132)</td>
<td>(mm. 102-103, <em>f</em>)</td>
<td>‘B’ (inverted)</td>
</tr>
<tr>
<td></td>
<td>(m. 132, <em>p</em>)</td>
<td>‘F#’ (original)</td>
</tr>
</tbody>
</table>

2.4 Formal Structure of *Quiet Joy*

According to the treatments of the PT, *Quiet Joy* is divided into five major sections with four transitions between them and a *coda* at the end. Section I (mm. 1-14) presents the original PT in g minor and three transpositions of the PT in 3/4. In section II (mm. 21-32), the PT is transposed and transformed in an asymmetrical meter 7/8 and is in a slower tempo. Section II is in G major. Section III (mm. 35-49) develops the transposed PTs that appeared in section I and expands Material B. Section IV (mm. 52-100)
occurs at the golden section of the entire piece and starts by the reminiscence of different parts from section I. While exploring other transpositions of the PT, Chin gradually superimposes Material A and B and creates a climax in the middle of section IV that sounds like a thunder storm. The climax serves as a watershed of the piece. After the climax, the PT is inverted, the harmony is simplified, the motion decreases and the texture becomes less dense. Section V (mm. 102-126) begins with the last inversion of the PT (on ‘B’), which leads to the return of the key in section II (G major) with variations of the transformed PT that once appeared in section II. In the coda, an ascending line formed by perfect 5ths reveals the internal connection that Material A and B is based on, which also serves as a closure for the piece.

Considering the durations of the sections, section I, II, III are close to each other (14, 12,15 measures) and section V is close to being twice as long (30 measures). Section IV (50 measures) is the most extensive section of the whole piece. In addition to its longer duration, section IV occurs close to the point of golden ratio of the piece (51:81=0.629 is close to 81:132= 0.613, counting by measures). The moment of arriving at the golden section is articulated by a partial recapitulation of section I.

The process of Material B interrupting Material A is not only found in the opening but will be further developed in subsequent sections. Except in sections II and V where the transformed and inverted PTs dominate, Material B tends to outnumber Material A in the other three sections. Most of the time, the two materials are juxtaposed with each other. Starting from the middle section of the piece (section III), the superimposition of the two materials increases and creates more musical tension (see Table 2-3).
Table 2-3: Formal structure of *Quiet Joy* by Gordon Shi-Wen Chin.

* Abbreviation: transition = trans.

<table>
<thead>
<tr>
<th>Section</th>
<th>I</th>
<th>Trans.</th>
<th>II</th>
<th>Trans.</th>
<th>III</th>
<th>Trans.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measures (totals)</td>
<td>1-14</td>
<td>15-20</td>
<td>21-32</td>
<td>33-34</td>
<td>35-49</td>
<td>49-51</td>
</tr>
<tr>
<td>Treatments of PT</td>
<td>original, transposed</td>
<td>transformed</td>
<td>transposed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Material A (quarter notes)</td>
<td>38</td>
<td>21</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Material B (quarter notes)</td>
<td>15</td>
<td>24</td>
<td>4</td>
<td>32</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>
| Tempo         | Quarter note = 96 |        | Quarter note = 80 |}

<table>
<thead>
<tr>
<th>Section</th>
<th>IV</th>
<th>Trans.</th>
<th>V</th>
<th>Coda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meter</td>
<td>3/4 (for 7 measures)→ 4/4</td>
<td>unmetered (ca. 11 seconds)</td>
<td>4/4</td>
<td>4/4 → unmetered (m. 132, ca. 20 seconds)</td>
</tr>
<tr>
<td>Measures (totals)</td>
<td>52-100</td>
<td>101</td>
<td>102-126</td>
<td>127-132</td>
</tr>
<tr>
<td>Treatments of PT</td>
<td>original, transposed, inverted</td>
<td></td>
<td>inverted, transformed</td>
<td></td>
</tr>
<tr>
<td>Material A (quarter notes)</td>
<td>105</td>
<td></td>
<td>100</td>
<td>8</td>
</tr>
<tr>
<td>Material B (quarter notes)</td>
<td>103</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tempo</td>
<td>Quarter note = 96</td>
<td></td>
<td>Quarter note = 80</td>
<td></td>
</tr>
</tbody>
</table>
2.5 Discussion of Individual Sections of *Quiet Joy*

The discussion of individual sections will focus on the development of Material A and B in each section, how the cycle of perfect 5th’s plays an important role in the harmonic progression of each section, and how the cohesion between the sections is maintained.

Section I (mm. 1-14)

Development of Material A in Section I (mm. 1-3, mm. 5-6, mm. 8-13)

Section I presents the original PT twice, both in *mf*. The first appearance of the original PT (mm. 1-3) is played by both hands in piano I. It lasts for three measures and is interrupted by Material B in m. 4 (see Example 2-1 above).

The second appearance of the original PT (mm. 8-14), by contrast, is lengthened to seven measures in piano I. It is accompanied by three layers of rhythmically-opposed figurations that are harmonically based on segments taken from an Eb13 chord (‘Eb-G-Bb-D-F-A-C’). The triplets played by piano I are formed by an augmented 4th (‘Eb-A’) and a perfect 5th (‘Bb-F’) with ‘Eb’ as its pedal point. The accompaniment in triplets forms a *hemiola* with the PT. The quadruplets and sextuplets in piano II consist of a first inversion ‘Eb’ major triad (‘G-Bb-Eb’) that is opposed by a first inversion ‘D’ minor triad (‘F-A-D’). The rhythmic and harmonic oppositions between the original PT and its accompaniments not only create an interesting rhythmic interplay, but also enrich the harmony (see Example 2-5).

Near the end of the original PT (mm. 12-14), the note ‘Eb’ is emphasized via repetition as a resolution to the root of the harmony (Eb13) on which it is based (see Example 2-5).

---

45 The note ‘C’ is suggested in the PT.
Example 2-5: Section I, mm. 8-14. The second appearance of the original PT features an extended melodic line and opposing rhythms and harmonies between the parts. *Quiet Joy* by Gordon Shi-Wen Chin.

The three transposed PTs in section I are shorter than the original PT. The transposed PT on ‘B’ in mm. 5-6 occupies six quarter notes and is accompanied by an ascending arpeggio that highlights an augmented 4th ‘C#-G’ from the accompaniment of the original PT (see Example 2-6). The other two transposed PTs on ‘C’ (mm. 11-12) and ‘F’ (mm. 12-13) are further shortened to four quarters notes for each appearance. Starting in m. 11, the transposed PTs on ‘C’ and ‘F’ are superimposed against the second original PT. Their accompaniment is changed to sextuplets and harmonically is based on a half-diminished 7th chord in second inversion (‘Ab-C-D-F’) in Eb, which also derives from Eb13 with a flattened ‘Ab’ (see Example 2-5 above). The comparatively shorter length of the three transposed PTs will be complemented later in section II and section III, as seen from the transpositional plan in tables 2-1 and 2-2.
Example 2-6: Section I, mm. 5-6. Transposed PT on ‘B’ features opposing harmonies. *Quiet Joy* by Gordon Shi-Wen Chin.

Note that the original and transposed PTs and the accompaniments in section I form a complete cycle of perfect 5th's from m. 1 to m. 13 (see *Example 2-7*). The cycle of perfect 5th's relates to the transpositional plan of the PT and the progression of the pedal points.

The three notes from the original PT (‘G-D-C’) and the pedal point of its accompaniment (‘A’) form a tetrachord of perfect 5th's ‘C-G-D-A’ (mm. 1-4). Then the tetrachord is transposed up a major 3rd to ‘E-B-F#-C#’ in m. 5. In mm. 8-13, the last tetrachord (‘Ab-Eb-Bb-F’) completes the cycle. ‘Eb-Bb-F’ appears in the accompaniment in m. 8 while ‘Ab’ appears as the pedal point of the accompaniment in mm. 11 (piano II) (see *Example 2-7, 2-8, 2-9*).

Example 2-7: The complete cycle of perfect 5th's formed by Material A in mm. 1-13 of section I. *Quiet Joy* by Gordon Shi-Wen Chin.
Material B in Section I (m. 4, 7, 14)

In m. 4, Material A is interrupted by Material B. As presented in Example 2-4 above, the first appearance of Material B in m. 4 is formed by a series of syncopated chords and descending arpeggios in 16th notes that express the children’s exciting jumps and runs. In m. 7 and m. 14, only the syncopation of Material B is preserved, the arpeggios in 16th notes in m. 4 are eliminated (see Example 2-5 above).

Material B in the Transition to Section II (mm. 15-20)

The transition between section I and II is the first spot for Material B to show its power. Based on
the original prototype of Material B in m. 4, Chin increases the number of syncopated chords and turns
the arpeggios into septuplets and nonuplets. With piano I leading the way and piano II following a 3\textsuperscript{rd}
below in a canonic manner, they create a climax in m. 19 featuring faster syncopated and fast-to-slow
repetitive chords in a \textit{forte} dynamic. Following the climax, a series of descending chords with a slower
surface rhythm (triplets) moves from Gb9 to G9. The descending chords soften the strong rhythmic
feelings of the syncopation by slightly retarding the motion and leading into section II in G major, the
first slow section in this piece (m. 20) (see Example 2-10).

Material B in the transition (mm. 15-20) forms another complete cycle of perfect 5\textsuperscript{th}s as Material A
does in section I. The cycle of perfect 5\textsuperscript{th}s formed by Material A in section I is divided into three parts
while that in Material B in the transition is divided into two symmetrical parts which corresponds to its
symmetrical structure.

If the last measure of the transition (m. 20) is eliminated, the transition can be divided into two
halves with the repetitive chords that occur in the second and third beats in m. 17 being the center of the
transition: nine quarter notes before and after the chords (see Example 2-10).

The first half of the transition (mm. 15-17) features ascending arpeggios, the second half of the
transition (mm. 17-19) features descending runs. Coupled with the symmetrical design of the structure
and gesture, Chin built the harmony of the first half of the transition (mm. 15-17) on ‘F#’
(‘F#-C#-G#-D#-A#-F-B#’), and the second half of the transition (mm. 17-19) on ‘B#’
(B#-G-D-A-E-B-F#). The last measure that doesn’t belong to the symmetrical structure (m. 20) serves as
a brief summary of the harmonic structure of mm. 15-19 in the form of tertian harmony (Gb9). The G9
that follows is a preview of the melody and harmony of section II (see Example 2-10).
Example 2-10: The symmetrical structure and the formation of a cycle of perfect 5th's in the transition to section II, mm. 15-20. *Quiet Joy* by Gordon Shi-Wen Chin.

The symmetrical plan of the cycle of perfect 5th's in the transition is twofold: first of all, both halves have seven notes (‘B’ and ‘F#’ are shared by both halves); second, the two base tones of each half, ‘F#’ and ‘B#’ are a tritone apart (see Example 2-11a, 2-11b).
Example 2-11a: The first half of the cycle of perfect 5\textsuperscript{th}s formed by Material B in the transition to section II, mm. 15-17. *Quiet Joy* by Gordon Shi-Wen Chin.

Example 2-11b: The second half of the cycle of perfect 5\textsuperscript{th}s formed by Material B in the transition to section II, mm. 17-19. *Quiet Joy* by Gordon Shi-Wen Chin.

In retrospect, the transition helps to prepare for ‘G,’ the tonal center of section II by: 1) constructing the cycle of perfect 5\textsuperscript{th}s on ‘F#,’ which is the leading tone of ‘G,’ and 2) highlighting ‘G’ via repetition in the climax at m. 19, and 3) providing a dominant to tonic harmonic progression (‘D’ $\rightarrow$ ‘G’) in the last measure (m. 20) of the transition (see Example 2-10 above).

**Section II (mm. 21-32)**

The Transformation of Material A in Section II (mm. 21-32)

The transposed PT on ‘B’ (mm. 5-6) from section I is developed in section II. It involves transformation and is later partially recapitulated in section V. Except for the descending 4\textsuperscript{th} of the
original PT that is preserved, other aspects are varied, including tempo, melodic structure, time signature, harmony, rhythm, and accompaniment type. The above-mentioned parameters work together to suggest the feeling of a barcarolle.

The transposed and transformed PT in section II is marked ‘a little slower’ (a quarter note = 80). Melodically, Chin expands the ‘G-D-C-C#-D’ of the original PT to ‘B-F#-C-D-E’. The descending major 2\textsuperscript{nd} (‘D-C’) and ascending minor 2\textsuperscript{nd}s (‘C-C#-D’) of the original PT are expanded to an augmented 4\textsuperscript{th} (‘F#-C’) and two ascending ninths (‘C-D-E’), respectively (see Example 2-12).

The transformed PT yields two variations as its countermelodies. The first variation is the whole tone melody played by piano II in m. 23 (‘F#-E-D-C’). The second variation is played by piano I at mm. 27-28 and features melodic elaboration of the first variation (see Example 2-12).

Harmonically, unlike the juxtaposition of g-minor, whole tones, and the diminished 7\textsuperscript{th} chord of the opening PT, section II is more diatonic with segments taken from the G major scale. These are put in opposition against each other: the right hand in piano I plays ‘B-C-D-E-F#,’ the right hand in piano II plays whole tone ‘C-D-E-F#’ and the left hands have a pedal note ‘G’ and perfect 5\textsuperscript{th}s ‘D-A,’ ‘E-B’ (see Example 2-12).

The time signature for the transformed PT is 7/8 and grouped as 4+3, which produces an undulating feeling. The grouping of 4+3 coupled with the wide ascending leaps both in the melody and the accompaniment reminds the author of something that a child likes to do when walking with two adults: each adult holds one hand of the child and lifts him up while walking. The parallel perfect 5\textsuperscript{th}s in the accompaniment (‘D-A, E-B’) enhances the image of two adults walking side by side (see Example 2-12).\textsuperscript{46}

\textsuperscript{46} This analogy is generated from Chin as he stated that the title Quiet Joy relates to the joy of being family.
Example 2-12: The transposed and transformed PT on ‘B’ and its two variations in mm. 21-23 and mm. 27-28 of section II. *Quiet Joy* by Gordon Shi-Wen Chin.

From the beginning of section II (m. 21) to m. 28, the transposed PT and its accompaniment form about half of the cycle of perfect 5ths on ‘G’ (‘G-D-A-E-B-F#-C#’) (see *Example 2-15*). With the preparation for the section III starting in m. 29, the other five tones (‘C-Fb-Eb-Ab’) are gradually added to complete the cycle of perfect 5ths on ‘G.’

In m. 29, new melodies emerge in both pianos with harmonic changes in the accompaniment. Both melody and harmony highlight three intervals (augmented 4th, perfect 5th, and minor 2nd) that are derived from the two pitch sets- (027) and (017) - formed by the PT. The new melody played by piano I is formed by ‘C-Bb-F’ (027) and descending chromatics ‘F-Eb-D.’ The accompaniment of the new melody features the oscillation between the augmented 4th (‘Fb-Bb’) and the perfect 5th (‘Eb-Bb’) that are
components of the set (017). Piano II plays a countermelody to the new melody of piano I, which also emphasizes the augmented 4\textsuperscript{th} (‘E-Bb, A-Eb, G-C#’) (see Example 2-13).

Example 2-13: In preparation of section III, the new melodies and harmonies in mm. 29-32 of section II highlight augmented 4\textsuperscript{th}, perfect 5\textsuperscript{th} and minor 2\textsuperscript{nd}s. *Quiet Joy* by Gordon Shi-Wen Chin.

Material B in the Transition to Section III (mm. 33-34)

Following Material A, Material B serves as a transition from section II to section III. Although the preparation of section III in effect has already begun in m. 29 with the recurring perfect 4\textsuperscript{th}/5\textsuperscript{th} and augmented 4\textsuperscript{th}, it is the meter (2/4) and the faster surface rhythm in the transition (mm. 33-34) that cancel the barcarolle-like feeling of section II and bring the pulse back to 4/4.

Melodically, Material B in the transition continues to highlight the chromatic descent and the oscillation between perfect 5\textsuperscript{th}s and augmented 4\textsuperscript{th}s, which foreshadows the melodic and harmonic features of section III. The treble melody in mm. 33-34 features the chromatic descent ‘Eb-D-C#, D-Db-C, Ab-G-F#’ that comes from the previous chromatic descent of Material A (‘F-Eb-D’) in mm. 29-31. The chromatic descent foreshadows the melodic cell of Material B in section III (‘F-Eb-D,’ m. 35). In addition, the broken chord in mm. 33-34 is formed by a perfect 5\textsuperscript{th} (‘G-D, Gb-Db’) and the augmented 4\textsuperscript{th} (‘E-Bb, Eb-A’) (segments of a half diminished 7\textsuperscript{th} chord) which are derived from the accompaniment played by piano I in mm. 30-32. It foreshadows the harmonic structure of section III (m. 35) (see Example 2-14).
Example 2-14: Transition to section III, mm. 33-35. Material B in the transition prepares for section III harmonically and melodically. *Quiet Joy* by Gordon Shi-Wen Chin.

In section II (mm. 21-32), there are 11 notes of a complete cycle of perfect 5ths formed by Material A. The last note to complete a whole cycle (‘G#’) is held until the beginning of section III in m. 35. To signify this moment, the chord on ‘G#’ in m. 35 is dynamically emphasized as *sf* (see Example 2-14 above and Example 2-15 below).

Example 2-15: The cycle of perfect 5ths in section II (mm. 21-34) contains 11 notes. The last note ‘G#’ to complete a whole cycle appears in the first measure of section III. *Quiet Joy* by Gordon Shi-Wen Chin.
Section III (mm. 35-49)

Section III emphasizes the imitative interplay or interaction of the two pianos, first on Material A, then on Material B. The two pianos echo each other with contrasting dynamics of \( p \) and \( mf \). The imitative interplay between the two pianos seems to suggest a scene where two children are chasing each other.

Section III is led in by Material B in m. 35, which is formed by three short stepwise chords (0146)-(0147)-(0147) in syncopated triplets played by piano I and the accented chord on ‘G#’ (01479) that completes the cycle of perfect 5\(^{th}\)s of section II. Although the stepwise chords in triplets (Material B) are immediately followed by Material A, they dominate the second half of section III (see Example 2-16).

Example 2-16: Section III, m. 35. Section III is led in by chords in triplets that are categorized as the first type of Material B. *Quiet Joy* by Gordon Shi-Wen Chin.

Material B (the first type): chords in triplets

‘F-Eb-D’ comes from the descending chromatics in section II.

Development of Material A in Section III (mm. 35-43)

Material A in section III focuses on developing the last two transpositions of the PT from section I. Contrary to the order in section I, the transposed PT on ‘F’ (m. 35, piano I) appears before the transposed PT on ‘C’ (m. 37, piano II). The two transposed PTs in section III are extended by using intervals embedded in the original PT: perfect 4\(^{th}\), 2\(^{nd}\) and 3\(^{rd}\).

The two transposed PTs are given different types of accompaniment, but harmonically, the two accompaniments highlight the oscillation between perfect 4\(^{th}\)s and augmented 4\(^{th}\)s. The accompaniment in
piano I is formed by quadruplets in 16\textsuperscript{th} notes that features oscillation between perfect 4\textsuperscript{th}s (‘G\#-C\#’) and augmented 4\textsuperscript{th}s (‘F-double sharps -C\#’) in a contracted register. By contrast, piano II features leaping chords of perfect 5\textsuperscript{th}s (‘Ab-Eb’) and augmented 4\textsuperscript{th}s (‘F-B’) in eighth notes. The contrast in rhythm and register influences the acoustic effect of the two types of accompaniment. Piano I sounds as if driving on a smooth road, while piano II is bumpier (see Example 2-17).

Example 2-17: Section III, mm. 35-38. Two transposed PTs that previously appeared in section I return in section III with contrasting accompaniments. Quiet Joy by Gordon Shi-Wen Chin.

![Example 2-17: Two transposed PTs with contrasting accompaniments.](image)

Like the original PT in section I, each transposed PT in this section is repeated twice. In the first appearance, the transposed PTs (mm. 34-39) take 17 quarter notes. In the second appearance, the transposed PTs (mm. 40-43) are shortened to 12 quarter notes and are then cut off by Material B. The longer duration of the two transposed PTs complement their shorter presentation in section I.

Development of Material B in Section III (mm. 41-51)

The syncopated chords of the prototype of Material B turn into the short, stepwise chords (0146)-(0147)-(0147) in the beginning of section III (m. 35) (see Example 2-16 above). The other cell of Material B, the descending arpeggio in 16\textsuperscript{th} notes, become a faster arpeggio in an arch-like gesture in
section III and cuts off the second appearance of the transposed PT on ‘F’ at m. 41. The arch-like arpeggios in 32\textsuperscript{nd} notes are formed by the sets that derive from the PT: ‘F-A\#-B’ (016) (m. 41), ‘C-F-G’ (027) (m. 43), ‘F-Bb-Eb’ (027) (m. 44-45) and ‘C-F#-A\#’ (026) (m. 44-45) (see Example 2-18, 2-19).

Example 2-18: Section III, m. 40-42. The second appearance of the transposed PTs is cut off by Material B. *Quiet Joy* by Gordon Shi-Wen Chin.

Example 2-19: Section III, mm. 43-45. The second type of Material B cuts off the transposed PTs and leads to the return of the first type of Material B which features imitative interplay between the two pianos. *Quiet Joy* by Gordon Shi-Wen Chin.
The short, stepwise chords in triplets return in m. 45, creating an imitative interplay between the two pianos (mm. 45-48), and leading to the climax (mm. 48-49) that features fast-to-slow repetitive chords. This recalls the harmony in the accompaniment that was formed by whole tones (‘A-Db-Eb-G’) and a diminished 7th chord (‘A-Eb-Gb’) at m. 1 and harmonically prepares for the recapitulation of the original PT in the next section (see Example 2-20).

Material B in the Transition to Section IV (mm. 49-51)

Material B in the transition to section IV recalls the chords on triplets that previously served as the transition to section II (m. 20). Different from its function of slowing down the tempo in the previous transition, the passage in triplets in mm. 49-51 helps to accelerate the tempo from a quarter note at 80 back to Tempo I (quarter note = 96) for the recapitulation of section I. Also, by emphasizing ‘D’ and ‘G’ in the triplets, it prepares for the return of the original PT (see Example 2-20).

Example 2-20: Section III, mm. 49-51. The climax in fast repetitive chords (m. 49) and the transition with accelerating triplets (mm. 49-51) prepare for the return of the original PT by recalling the harmony, melody, tempo and meter of the original PT in section I. Quiet Joy by Gordon Shi-Wen Chin.

The fast-to-slow repetitive chords recall the harmony formed by whole tones (‘A-Db-Eb-G’) and a diminished 7th chord (‘A-(C)-Eb-Gb’) at m. 1.
Unlike the previous sections, the harmonic progression of section III doesn’t form a complete cycle of perfect 5\textsuperscript{th}s. Instead, it is based on parts of the cycle of perfect 5\textsuperscript{th}s from the last six measures of section II (‘C#-G#-Eb-Bb-F-C-G’). ‘C#-G#-Eb’ are highlighted in the accompaniments of the transposed PT on ‘F’ and ‘C’ (mm. 35-37) while ‘Bb-F-C-G’ are found in the two transposed PTs (see Example 2-17 above).

In m. 44, the harmonic bass in piano II (‘Ab’) suddenly shifts a major 2\textsuperscript{nd} downward to ‘Gb’, and the cycle thus becomes ‘Gb-C#-G#-D#-Bb-F-C-G’ (see Example 2-21).

Example 2-21: The cycle of perfect 5\textsuperscript{th}s in section III, mm. 35-44. Quiet Joy by Gordon Shi-Wen Chin.

Section IV (mm. 52-101)

This section is further divided into five subsections. The formal division is achieved through the pairing of Material A and B (see Table 2-4). Material A and B are oftentimes superimposed in section IV, unlike previous sections. Therefore the discussion of Material A and B won’t be separated as in the previous three sections.

In the first three subsections, Material B is gradually expanded in duration while Material A is gradually shortened. After the climax at section IV, subsection iii (m. 86), however, Material B gradually dissipates and the inverted PT becomes the dominator, bringing Material A back to the foreground with a change in texture and atmosphere.
Table 2-4: Formal structure of section IV of *Quiet Joy* by Gordon Shi-Wen Chin.

<table>
<thead>
<tr>
<th>Section/subsection</th>
<th>IV-i (m.52-64)</th>
<th>IV-ii (m.64-78)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure</td>
<td>52-58</td>
<td>59-64</td>
</tr>
<tr>
<td>Material</td>
<td>A: original and transposed PT</td>
<td>B: arpeggios, inverted PT accomp.</td>
</tr>
<tr>
<td>Quarter notes</td>
<td>30</td>
<td>24</td>
</tr>
<tr>
<td>Superimposition of material A and B</td>
<td>9 quarter notes (PT is accompanied by material B)</td>
<td>3 quarter notes (material B is partially accompanied by PT accomp.)</td>
</tr>
<tr>
<td>Cycle of perfect 5ths</td>
<td>(Ab-Eb-Bb-F-C-G-D-A)</td>
<td>(D-A-E-B-F#-C#-G#)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section/subsection</th>
<th>IV-iii (m.78-87)</th>
<th>IV-iv (m.88-95)</th>
<th>IV-v (m.96-101)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure</td>
<td>78-80</td>
<td>78-87</td>
<td>88-92</td>
</tr>
<tr>
<td>Material</td>
<td>A: transposed PT</td>
<td>B: use the two types of Material B from section III to create climax</td>
<td>A: inverted PT</td>
</tr>
<tr>
<td>Quarter notes</td>
<td>9</td>
<td>33</td>
<td>18</td>
</tr>
<tr>
<td>Superimposition of Material A and B</td>
<td>4 quarter notes (material B is superimposed with the PT.)</td>
<td>15 quarter notes (material B is accompanied by PT accomp.)</td>
<td>5 quarter notes (material B is accompanied by PT accomp.)</td>
</tr>
<tr>
<td>Cycle of perfect 5ths</td>
<td>(D-A-E-B-F#-C#-G-D-A)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Section IV-i (mm. 52-64)**

Section IV-i begins with the recapitulation of the second appearance of the original PT in section I (mm. 52-58 = mm. 8-13). Based on the ‘Eb13’ chord (mm. 52-55) and later, the half-diminished 7th chord in second inversion in Eb (mm. 56-58), the PT is transposed downwards a perfect 5th each time: ‘G-D-C’
(m. 52), ‘C-G-F’ (m. 56), ‘F-C-B’ (m. 57). After a two-bar transition in mm. 59-60, Chin begins to explore new transpositions of the PT, which begins with the transposed PT on ‘Eb’ in m. 61 (see Example 2-22).

Example 2-22: Section IV-i, mm. 52-60. Section IV begins with the recapitulation of the second appearance of the original PT in section I. Quiet Joy by Gordon Shi-Wen Chin.

The transposed PT on ‘Eb’ in m. 61 (piano I) and its accompaniment (piano I) are played by both hands in unison. The accompaniment is a fragmentation and inversion of the sextuplets that accompanied some previous transposed PTs. Melodically, the transposed PT on ‘Eb’ emphasizes the minor 2nd, which coupled with harmonically unstable accompaniments (see the change of chord sets in Example 2-23), creates a turbulent new version of the PT.
Example 2-23: Section IV-I, mm. 61-64. Transposed PT on ‘Eb’. *Quiet Joy* by Gordon Shi-Wen Chin.

The original PT and its three transpositions in section IV-i form parts of a cycle of perfect 5th's that was previously formed in mm. 8-13 of section I: ‘Ab-Eb-Bb-F-C-G-D-A’ (see Examples 2-7, 2-22, 2-23 above).

**Section IV-ii (mm. 64-78)**

Section IV-ii develops the transposed PT on ‘A’ (mm. 64-66) and ‘E’ (mm. 66-68). Accompanied by groups of sextuplets in 16\(^{\text{th}}\) notes, the two transposed PTs are harmonized by a half-diminished 7th chord in second inversion in C (‘F-A-B-D’) and a fully-diminished 7th chord in second inversion in C (‘F-Ab-B-D’), respectively. The melodic shape of the two transposed PTs is inverted (see Example 2-24).
Example 2-24: Section IV-ii, mm. 64-68. Transposed PT on ‘A’ and ‘E’. *Quiet Joy* by Gordon Shi-Wen Chin.

Between the two transposed PTs on ‘A’ and ‘E’ in mm. 64-68 and the next transposed PT on ‘F#’ in m. 78 is a passage formed by an expansion of Material B from section III: fast arpeggios in an arch-like gesture (mm. 71-77) (see Example 2-25). The arch-like fast arpeggios are expanded by sequence and transposition that are shared by both pianos (see Example 2-26).

Example 2-25: Fast arpeggio in arch-like gesture from section III played by piano I (m. 41). *Quiet Joy* by Gordon Shi-Wen Chin.
Example 2-26: Section IV-ii, mm. 71-78. Expansion of the arch-like arpeggios from section III. *Quiet Joy* by Gordon Shi-Wen Chin.

In the passage featuring Material B (mm. 67-77), the first note of the next transposed PT (‘F#’) and the pedal point of its accompaniment (‘G#’) are highlighted to anticipate its arrival. The most obvious example is at m. 70 where ‘F#’ and the enharmonic of ‘G#’ are emphasized by the repetitive whole-tone chords, foreshadowing the (0246) tetrachord on ‘G#’ (‘G#-D-E-F#’) that accompanies the transposed PT ‘F#-C#-B’ in m. 78 (see Example 2-27).
Example 2-27: Section IV-ii, m. 70 and m. 78. The transposed PT on ‘F#’ and the pedal point of its accompaniment (‘G#’) is foreshadowed enharmonically in m. 70. *Quiet Joy* by Gordon Shi-Wen Chin.

Section IV-iii (mm. 78-87)

With the appearance of the transposed PT on ‘F#’ (mm. 78-79, see Example 2-27 above), an entire cycle of perfect 5ths that start from the beginning of section IV-i has been completed (‘Ab-Eb-Bb-F-C-D-A-E-B-F#-C#-G#’) (see Example 2-28).

Example 2-28: The complete cycle of perfect 5ths formed by section IV-i to IV-iii. *Quiet Joy* by Gordon Shi-Wen Chin.

The transposed PT on ‘F#’ has a chordal texture and a louder dynamic (mf) than all of the previous transposed PTs in section IV. From this point on, the texture thickens with the chords of Material B
superimposing upon the transposed PT on ‘F#’ (see Example 2-27 above). Between mm. 81-87, an ascending stepwise melody (‘F-G-A-B-C-C#-D-E’) shared by the chords of triplets from section III and the inverted sextuplets from section IV-i and IV-ii rises from ‘F’ (m. 81) and leads to the most important climax of the entire piece. The climax highlights ‘E’ in ff (m. 86), which foreshadows the first note of the inverted PT that ensues in m. 88. After the climax, Material B gradually dissipates and the transposed PTs in section IV-iv and IV-v are inverted (See Example 2-29).

Example 2-29: Section IV-iii, mm. 81-88. Chords and sextuplets play a dominant role in the texture of section IV-iii to build the most important climax of Quiet Joy by Gordon Shi-Wen Chin.
Section IV-iv (mm. 88-95)

After the thunder-storm-like climax, Material B gradually dissipates, followed by the return of Material A in the form of inverted PTs along with a gradual slowing motion and thinner texture, as if portraying the refreshing scenery of Mt. Da-Tun.

Unlike the fragmented quality of the previous appearances, the inverted PT on ‘B’ is able to enjoy a longer and more complete journey in its inverted version as the interruption of Material B gradually lessens.

At m. 88, the inverted PT on ‘E’ and ‘A’ total 20 quarters. They are played by piano II, at first with both hands then the left hand of piano II using trills. Based on the chord D9, the accompaniment superimposes three layers of rhythms (mm. 89-91): quadruplets, quintuplets and trills, resembling the accompaniment type in section I (m. 8) (see Example 2-30).

Example 2-30: Section IV-iv, mm. 88-90. The inverted PTs on ‘E’ and ‘A’. Quiet Joy by Gordon Shi-Wen Chin.

Following the two transposed PTs on ‘E’ and ‘A’, in mm. 91-95, two (014) trichords (‘C-Eb-B,’ ‘F-Ab-E’) are performed in a fast-to-slow rhythm. These trichords that expose the interval of the 7th in the outer voices of Material B are like aftershocks and appear alternatively between the two pianos (see Example 2-31).
Example 2-31: Material B in section IV-iv appears like aftershocks, mm. 93-95. * Quiet Joy by Gordon Shi-Wen Chin.

Fast-to-slow repetitive trichords appear alternatively between the two pianos.

Section IV-v (mm. 96-100)

The subsequent two transposed PTs on ‘G#’ (m. 96) and ‘C#’ (m. 98) last 14 measures. Their motion decreases as the pedal point of the accompaniment occurs per half note instead of the previous quarter note. In these five measures, Material B highlights the repetitive ‘A’ in the high register and is like birds chirping. It anticipates the unmetered transition to section V (see Example 2-32).
Example 2-32: Section IV-v, mm. 96-100. Inverted PTs on ‘G#’ and ‘C#’. *Quiet Joy* by Gordon Shi-Wen Chin.

The motion decreases as the pedal point of the accompaniment ‘F#’ occurs every half note instead of every quarter note.

Transition to Section V (m. 101)

The transition to section V in m. 101 (see *Example 2-33*) is formed by falling arpeggios of trichords that feature the interval of a 7th in the outer voices (‘B-D-A’, ‘A-C#-G#’), trills on ‘G’ and ‘E’, repeated notes on ‘B-C#-D’ and ‘G-B-C#-D’ as well as a drone bass on ‘F#’. Chin eliminates the time signature in m. 101 and uses proportional notation to move away from the regular pulse of a quarter note equals 96, and preparing for the return of the slower tempo that appeared in section II and III (quarter note equals 86).

In the unmetered transition to section V, the three dotted vertical lines that serve as reference points of the two pianos divide m. 101 into four portions. The thick black horizontal lines and the number of seconds that are placed above the systems indicate the duration of each figuration. The first portion doesn’t specify the duration, but the slash on the beams of the falling minor 7th s indicate that they should be played faster than 16th notes. The slashes on the repeated notes on ‘B-D-C#’ and ‘G-B-C#-D’ are of the same meaning. The second portion specifies that the bass note ‘F#,’ the trills on ‘G#’ and the repeated notes ‘B-D-C#’ should last for 4 seconds, within which a two-second pause is placed between the F# in the bass and the repetitive ‘G’ in the middle register. The repeated notes ‘B-D-C#’ are notated with whiteheads with a slash on the 16th note beams, indicating that they should be played faster than 16th
notes. The third and fourth portions last for 7 seconds, in which one second after the trills on ‘E’ played by piano I, repeated notes on ‘B-D-C#’ which were played piano II should change to ‘G-B-C#-D-C#-B’.

This will serve as an accompanimental figure in section V (see Example 2-33).

The texture and harmony in the transition seems to evoke the image of one standing on a mountain peak surrounded by clouds and misty fog (see Example 2-33).

In the unmetered section (m. 101), Chin shifts the cycle of perfect 5ths in section IV-v from ‘D’ (‘D-A-E-B-F#-C#-G#-D#’) to ‘G,’ preparing for the G major in section V. First, Chin stretches the cycle of perfect 5ths on D to a perfect 5th below by adding ‘G’ and cancelling ‘D#’ (m. 101) and ‘G#’ (m. 102). This results in a cycle on ‘G’ (‘G-D-A-E-B-F#-C#’), which is exactly the same harmonic structure of the first part of the previous section II (mm. 21-28) (see Example 2-33, 2-34).
Example 2-33: Section IV-v, m. 101. Transition to section V uses proportional notation. Also, the cycle of perfect 5ths here recalls the cycle of perfect 5ths of section II. Quiet Joy by Gordon Shi-Wen Chin. The cycle of perfect 5ths ‘G-D-A-E-B-F#-C#-G#’ is formed by the superimposition of falling arpeggios on trichords ‘B-D-A’ and ‘A-C#-G#’, drone notes on ‘F#’ and trills on ‘G-B-C#-D’ and ‘E-E#’.

Section V (mm. 102-132)

Material A

The last inverted PT on ‘B’ (‘B-E-D’) is triadic. It possesses a lyrical quality with its extended melodic line at a slower tempo. It inverts the transposed PT from section II (‘B-F#-E’). Harmonized within an E13 chord, it is repeated twice. The second appearance ends on ‘F#’ and anticipates the return
of the variation of the transformed PT in m. 114 (see Example 2-36).

Unlike the rhythmic accompaniments that appeared before, the inverted PT in section V is accompanied by trills formed by groups of notes that are indicated by proportional notation and continue from the transition in m. 101. The lyrical melody of the transposed PT and its accompanimental texture create a transcendental feeling that seems to suggest the image of standing at the top of a mountain, above the cloud and watching the sunrise (see Example 2-35).

The countermelody in the bass in section V creates a gradual landing on G major in the order of ‘A’ (m. 104) – ‘D’ (m. 108) – ‘G’ (m. 110), helping to imperceptibly shift the harmony from E13 (mm. 102-108) back to G major (m. 110), the key of the previous section II (see Example 2-35, 2-36).

Example 2-35: Section V, mm. 101-104. First appearance of inverted PT on ‘B’. Quiet Joy by Gordon Shi-Wen Chin.
Example 2-36: Section V, m. 107 and m. 114. The end of the second appearance of the inverted PT (m. 107) anticipates the return of the first variation of the transformed PT from section II in m. 114. *Quiet Joy* by Gordon Shi-Wen Chin.

In m. 109, the inverted PT is fragmented into two trichords, ‘C-E-B’ (015) and ‘B-D-A’ (025). The two perfect 5ths ‘E-B’ and ‘D-A’ in the trichords foreshadow the return of the accompaniment from section II in m. 110 (see Example 2-37).

Example 2-37: Section V, mm. 105-101. The second appearance of the inverted PT on ‘B’ leads back to the return of section II. *Quiet Joy* by Gordon Shi-Wen Chin.
The ‘C#’ in the cycle of 5\textsuperscript{th}s (‘G-D-A-E-B-F#-C#’) is canceled in m. 109, and the transformed PT from section II returns without ‘C#,’ making section V tonally more stable than section II. Note that Chin didn’t recap the entire transformed PT in this section, but only the variations (countermelodies) as the dissipation of Material A (see Example 2-38).

Example 2-38: Section V, mm. 113-117. The transformed PT from section II returns with its variation only. Quiet Joy by Gordon Shi-Wen Chin.

In the coda, a cycle of perfect 5\textsuperscript{th}s based on ‘Eb’ (m. 127) appears unembellished in piano II (‘Eb-Bb-F-C-G-D’). For the first time in the entire piece, Chin lays out the basis of the harmonic progression in the foreground, creating a moment of revelation. The two trichords following it-‘C-E-B’ and ‘B-D-A’- continue to build up the perfect 5\textsuperscript{th} cycle to ‘B’ (Eb-Bb-F-C-G-D-A-E-B) (see Example 2-39).

In m. 132, the last measure of Quiet Joy, the transposed PT on ‘F#-C#-B’ continues the rising cycle of perfect 5\textsuperscript{th}s. The recapitulation of ‘F#-C#-B’ at this point and the last three notes of the entire piece ‘C-G-D’ have a leading-tone-to-tonic relationship and enhances a cyclic sense between the end (‘C-G-D’) and the opening PT (‘G-D-C’) (see Example 2-39).

Chin uses proportional notation in m. 132 to continue the slowing down of the tempo that started in m. 130. There is a five-second pause before the appearance of the transposed PT on ‘F#-C#-B’. The first vertical dotted line that appears afterwards indicates that the two pianos count three seconds together before piano II plays the bass ‘Eb.’ Each note in the rising cycle of perfect 5\textsuperscript{th}s lasts approximately two seconds.
As its counterpart in section II, section V doesn’t complete a whole cycle but only 11 notes, the missing ‘G♯’ or ‘Ab’ is held until section I (see Example 2-39). The cycle of perfect 5<sup>th</sup>s on ‘Eb’ in the coda acts as a dominant to the cycle of perfect 5<sup>th</sup>s in section I (on ‘Ab’), thus creating another cyclic sense between the end and the beginning (see Example 2-7 above).

Example 2-39: Section V, m. 132. Chin creates a cyclic sense between the end of Quiet Joy and the opening by closing the piece on ‘G’ and leaving the cycle of perfect 5<sup>th</sup>s in the coda incomplete. Quiet Joy by Gordon Shi-Wen Chin.
2.6 Performance Issues in *Quiet Joy*

The dynamic levels of the PT and its various treatments are specified by Chin and table 2-2 serves as a reference for performers.

In section I, all presentations of the PT (original and transposed) are played as *mf*, but the accompaniments of the PT vary by using different dynamics. In section II, the transformed PT starts as *mp*, a little softer than the PTs in section I. The variations of the transformed PT in section II that act as countermelodies, however, are played even softer at *p* (see *Examples 2-8* and 2-9). In section III, the transposed PTs on ‘F’ and ‘C’ are in contrast in regards to their dynamic levels with the transposed PT on ‘F’ being played in a *p* dynamic and the one on ‘C’ in *mf* (see *Examples 2-17* and 2-18). In section IV, most of the transposed PTs are played as *mp* with four exceptions. Transposed PT on ‘Eb’ (mm. 61-63) should be played louder (*mf*) as it has a more turbulent character (see *Example 2-23*). Transposed PT on ‘F#’ (mm. 78-80, *mf*) is chordal and functions to prepare for the most important climax of the piece (see *Example 2-26*). The first two inverted PTs after the climax (on ‘E’ and ‘A’) in mm. 88-91 are played in *p* to create an immediate contrast to the climax (see *Examples 2-29* and 2-30). In section V, the transposed PT on ‘B’ (mm. 102-103) is given the loudest dynamic (*f*) among all the PTs (see *Example 2-35*), followed by the last transposed PT on ‘F#’ in *p* (see *Example 2-39*).

Note also that some PTs appear more than once in different sections with different dynamics. The original PT on ‘G’ in section I is *mf* in both its appearances; in section IV, however, it becomes *mp*. The transposed PT on ‘F’ appears four times in the entire piece with three different dynamics in the order of *mf* → *p* → *mp*. Transposed PT on ‘B’ appears three times with three different dynamics in the order of *mf* → *mp* → *f*. The transposed PT on ‘F#’ appears twice with two different dynamics in the order of *mf* → *p*.

The dynamic progression for the most important climax of *Quiet Joy* (mm. 78-87) deserves special attention (see *Example 2-29*). The *crescendo* from *mf* (m. 78) to *ff* (m. 86) should be artistically built and avoid an “over-statement of volume” in the beginning of the climax.47

In terms of pedaling in *Quiet Joy*, there is only one indication for the use of the pedal in the entire

---

score, which is marked in the transition to section V (m. 101) and is applied throughout the entire section (see Example 2-33). In m. 101, Chin requires the performers to sustain the sonority with the pedal, which must be applied to create a blending of tonal colors from the main melodic line with the harmony.

Pedaling for faster or rhythmic passages, such as the transition to section II (mm. 15-20) and for the Material B in section III, should be reduced or dry. Commenting on the performance of music similar to this, pianist Guy Maier states “in rapid pieces with scale, arpeggio or finger passage work, the pedal is employed much less than in solo playing, in fact the best advice I can give you at such times is to use no pedal at all,…”48

In dealing with the passages with poco rallentando (m. 20) and poco accelerando (mm. 50-51) as well as the two unmetered passages written in proportional notation (m. 101 and m. 132), a careful listening and a sensitive feeling between the two performers must be rehearsed until the desired artistic rendition is achieved.

48 Ibid., 212. Guy Maier (1891-1956) is an American pianist and teacher who taught at the University of Michigan (1924-1931), the Juilliard School of Music (1933-1942), and the University of California in Los Angeles (1946-1956). In addition to solo appearances, he also toured as a duo-pianist with Lee Pattison from 1916 to 1931. Baker’s Biographical Dictionary of Musicians, 7th ed., s.v. “Guy Maier.”
2.7 Summary of Quiet Joy

This analysis of individual sections above examines the way Chin develops Material A and B in each section. The whole piece is based on repeating, transposing, enlarging, re-synthesizing or transforming the musical materials presented in the beginning to form different sections.

The connection between the sections is achieved by the manipulation of all musical parameters: melody, harmony, rhythm, tempo and texture.

The cycle of perfect 5th’s plays an important role in the harmonic progression of each section as well as the connecting materials between sections. Section I has two complete cycles of perfect 5th’s. The first one is made up of three tetrachords formed by the first three notes of the PTs and the pedal points of their accompaniments (mm. 1-14). The second one is formed by the symmetrical structure of the transition (mm. 15-20). Section II is based on G. Its cycle of perfect 5th’s comprises 11 chromatic pitches in which ‘G#’ is missing. The harmony of section III in turn highlights the missing ‘G#’ in the bass. Section IV has five subsections. The first three subsections comprise a complete cycle of perfect 5th’s. The last two that focus on the inverted PTs is based on the cycle of perfect 5th’s formed by section IV-ii and iii (‘D-A-E-B-F#-C#’) and parts of section IV-i (‘G#-D#’). Section V begins with the ‘G’ cycle of perfect 5th’s that section II is also based on. As in section II, the cycle of perfect 5th’s in section V only comprises 11 notes with a missing ‘G#’.
CHAPTER 3

PIANO DUET

by PEY-WEN YEN

Duration: ca. 10 minutes (218 measures)

Date of Composition: 2005


3.1 Biography of Pey-Wen Yen

Born in Taipei, Taiwan, Pey-Wen Yen (b. 1966) studied piano with Gong-Chin Lin and Shu-Fei Chou. Later she studied composition with Wei-Ho Dai and De-Yi Liu. In 1991, Pey-Wen Yen enrolled in the graduate school of music at National Taiwan Normal University and studied composition with Mao-Shuen Chen. In 1994, she received an OAD Scholarship from Austria and went abroad to study composition under Professor Erich Urbanner at the Vienna Conservatory. She is now teaching at the Department of Applied Music at Aletheia University in Taipei.

Yen’s compositions include a large body of instrumental solos and chamber music, several orchestral works and three musical plays for children. Her music has been frequently performed at the National Music Hall in Taipei and cultural centers in Taiwan. As a member of Shuen-Yin-Ya-Zhi49, she has composed several works for solo piano and piano duos. Major works for piano include Ballade I-II (2007-2008), Hu-Hu (2005), Jue (2004), Piano for Four Hands (2003, Qing, Zhu and Qi), and the piece being examined here, Piano Duet for two pianos (2005).

3.2 Introduction of Piano Duet

Program Notes of Piano Duet

The music starts with the pulse that has been established ahead of time and creates an imaginary world. The music undulates with my erratic emotions. One can’t differentiate between the sounds of the two pianos. With the overlap of materials, the performers are uncertain about whether the sound comes from their part or from the other piano. Following the intuition that reflects the change of moods and the synchronization of the two pianos, I tried to create a state of liberty and contentment of taking the world as it naturally exists.50

Three Movements Express Three Emotions

Piano Duet has three movements and each expresses a particular state of mind. In my interview with Yen, she stated that the piece is meant to be played as a whole and the pauses between each movement should not be extensive.51 Evidence to support this includes the successive numbering of measures throughout the three movements as well as a sense of incompleteness at the end of the first two movements.

The original title of each movement is in Chinese but Yen has translated them into English in the program notes. Table 3-1 shows the basic information for each movement. The first movement, Understanding, has the fastest tempo and the shortest duration among the three movements. While the first and second movements are in duple meter, the third movement is mostly in triple. Each movement has a specific tonal center. The tonal center of the first movement is ‘E’ but the dominant ‘B’ is more emphasized. The second and third movements are in ‘A’ minor and ‘D’ minor, respectively. In regards to form, the first movement is in binary form. The second movement is ternary and the last movement consists of a series of variations.

50 The program notes of Piano Duet were written by Pey-Wen Yen.
51 Personal interview with Yen took place in her studio on May 2, 2009, Taipei.
Table 3-1: Piano Duet by Pey-Wen Yen.

<table>
<thead>
<tr>
<th>Movement</th>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Understanding</td>
<td>In Mind</td>
<td>Wave</td>
</tr>
<tr>
<td>Measures/Duration</td>
<td>39/1 min 30sec.</td>
<td>94/6 min.</td>
<td>84/4 min.</td>
</tr>
<tr>
<td>Tempo</td>
<td>quarter = 112</td>
<td>quarter = 96</td>
<td>quarter = 72 → 84</td>
</tr>
<tr>
<td>Tonal center</td>
<td>E minor</td>
<td>A minor</td>
<td>D minor</td>
</tr>
<tr>
<td></td>
<td>Start with ‘B’</td>
<td>Start with ‘E-A’</td>
<td>Start on ‘D-A’ end</td>
</tr>
<tr>
<td></td>
<td>End on ‘E’</td>
<td>End on ‘A-D’</td>
<td>on ‘D’</td>
</tr>
<tr>
<td>Form</td>
<td>AA’</td>
<td>ABA’A</td>
<td>ABCD</td>
</tr>
</tbody>
</table>

Compositional Style of Piano Duet

1) Tonal Organization

Yen tends to emphasize the tonic and dominant in a given work. The first movement focuses on ‘B,’ the dominant of its tonic ‘E’; the second movement focuses on ‘A’ and ‘E,’ while the last on ‘D’ and ‘A.’ The relationship of the focal pitches of the three movements is in a descending circle of 5ths (‘B-E-A-D’).

To enhance the continuity between the movements, the first two movements are unresolved in regard to tonality. The first movement is in E minor but its dominant ‘B’ is highlighted. The repetitive dominant runs throughout the movement and concludes the piece while the tonic ‘E’ is briefly stated. The second movement starts with ‘E’ and provides a resolution to the previous movement. Throughout the second movement, the tonic and dominant are heard as an ostinato. The second movement ends tonally unsettled with a perfect 4th ‘A-D.’ The inversion of ‘A-D’ initiates the third movement, in which all materials are derived from the two notes. This tonal relationship enhances the cohesion of the three contrasting movements (see Example 3-1).
Example 3-1: Tonal emphasis of the three movements of Piano Duet by Pey-Wen Yen.

Movement I

Although the first movement ends on ‘E’, its dominant ‘B’ is highlighted until the end.

Movement II

The second movement starts with ‘E’ and provides a resolution to the previous movement.

The second movement ends tonally unsettled with the perfect 4th ‘A-D’ and the inversion of ‘A-D’ initiates the 3rd movement.

Ostinato is formed by tonic ‘A’ and dominant ‘E’
Example 3-1 (cont.)
Movement III

2) Use of Fast Tempos and Fast Figurations

Yen has a predilection for fast tempos which are found in most of her other works. Yen is fond of the acoustic effect created by fast figurations, which can be found in the outer movements of the Piano Duet. The first movement has an ostinato in driving sixteenth notes, played at a tempo of a quarter note equals 112. The last movement has driving sextuplets governing the second half of the piece at the tempo of a quarter note equals 84. Even the lyrical middle movement shouldn’t be performed under the designated tempo of quarter note equals 96, according to Yen (for the ostinato in driving sixteenth notes in movement I, see Example 3-1 above; for the fast figuration in movement III, see Example 3-2 below).

3) Emphasis on Treble Register

Yen has a preference for colorful sonorities and sounds in the treble register. Yen’s compositional method, as she describes it, relies heavily on listening. “In the initial stage of composing a certain work, I would try the sound I want on the piano and it usually takes a long time for me to search for the sound that yields the color I want. Colorful sonority has always been my major pursuit and the central thought when I compose."

In speaking about her arrangement for both pianos playing in the high register in many passages in the *Piano Duet*, Yen explained, “for me, it takes two pianos to do similar things in the high register to yield the sound I want for this particular piece.” Both pianos playing the same materials in the high register creates a larger and richer sound that is not possible if played by one piano (See *Example 3-3*).

---

52 Personal interview with Yen took place in her studio on May 2, 2009, Taipei.

53 Personal interview with Yen took place in her studio on May 2, 2009, Taipei.
Example 3-3: Upper register texture in *Piano Duet* by Pey-Wen Yen.
Movement I: mm. 11-13. Piano I and II play identical or similar chords in the mid to high register.

Movement II: mm. 58-59. Piano I and II play countermelodies in the high register.
Example 3-3 (cont.)
Movement III: mm. 192-193. Piano I and II play in unison or 3rds in high register.

4) Polyphonic Writing

Yen is influenced by the polyphonic writing of J. S. Bach. “I have both conscious and unconscious tendency to juxtapose themes or any kinds of materials in a polyphonic setting, which reflects my respect and fondness of Bach’s music.”

Polyphonic textures are found in the first and the second movements of Piano Duet (see Example 3-4).

---

54 Personal interview with Yen took place in her studio on May 2, 2009, Taipei.
Example 3-4: Polyphonic writing in *Piano Duet* by Pey-Wen Yen.
Movement II: mm. 72-73. The superimposition of materials from different sections: piano I performs the material of the second section while piano II plays that of the first section.

Movement III: mm. 150-153. Canonic writing in *Piano Duet*. 
5) Economic Use of Materials

Another characteristic of Yen’s compositional style is her economic use of musical materials. Each of the movements has its own specific basic idea and the rest of the materials are derived from the basic idea. Examples that will illustrate her economic use of materials will be provided in the discussion of each movement.

3.3 Discussion of Individual Movements of *Piano Duet*

3.3.1 Movement I: *Understanding*

The first movement is constructed in a simple binary form AA’ and each section has two subsections or subsidiary sections as displayed in the diagram of the general structure. Section A’ (mm. 21-39) is based on the material from section A (mm. 1-20). The entire movement consists of two main ideas- Idea 1 and Idea 2. Each of these ideas have a few varied forms: Idea 1 has two forms and Idea 2 has three forms.

Table 3-2 presents the arrangement of the ideas. Idea 1-1 and Idea 2-3 can be seen as the frame of the first movement because both of the main sections begin with Idea 1-1 and close with Idea 2-3. The rest of the ideas (Ideas 1-2, 2-1 and 2-2) are used to create the climax of the first movement.
Table 3-2: Formal structure of the first movement of Piano Duet by Pey-Wen Yen.

<table>
<thead>
<tr>
<th>Section</th>
<th>A</th>
<th>A’</th>
</tr>
</thead>
<tbody>
<tr>
<td>subsection</td>
<td>I</td>
<td>II</td>
</tr>
<tr>
<td>Measures</td>
<td>1-7 (7)</td>
<td>8-20 (13)</td>
</tr>
<tr>
<td>Dynamic level</td>
<td>pp→f</td>
<td>p→f</td>
</tr>
<tr>
<td>Idea</td>
<td>1-1→1-2</td>
<td>1-1→2-1→</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1-2→2-2→</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2-3 (closing)</td>
</tr>
</tbody>
</table>

**Material of Movement I**

Idea 1 and Idea 2 are in contrast to each other, particularly in rhythm and register. In regards to rhythm, Idea 1 has relentless sixteenth notes while Idea 2 consists of a series of eighth notes. When considering register, both forms of Idea 1 (Idea 1-1 and 1-2) are positioned mainly between the mid to high register while the three forms of Idea 2 (idea 2-1, 2-2 and 2-3) explore either the bass or the treble registers. Both main ideas are very simple and only the second form of Idea 1 undergoes any development.

**Idea 1**

The two forms of Idea 1 are labeled Idea 1-1 and Idea 1-2. Idea 1-1 is a relentless, driving sixteenth-note ostinato on the dominant ‘B.’ It is later joined by the pitch ‘A♯’ at m. 4. Its fast figuration along with the pungent sound of the minor second provides a unique acoustic color in the background. Yen stated that the ostinato contains two elements: static, the sixteenth notes on ‘B,’ and stir, the thirty-second notes on ‘A’ and ‘C.’ Idea 1-1 is used as an opener for the subsections (mm. 2-5, mm. 8-10, mm. 22-27) and a closer for the movement. In the end of the first movement, instead of getting softer, its dynamic dramatically surges from f to fff within one measure, and then suddenly comes to a halt, letting the dissonant minor second reverberate in the air (see Examples 3-5 and 3-6).
Example 3-5: Section A, mm. 1-4. Idea 1-1 of the first movement of *Piano Duet* by Pey-Wen Yen.

Idea 1-1: the relentless, driving 16th-note ostinato. It has two elements: static and stir.

![Musical notation](image)

Static: the 16th notes on 'B'.  
Stir: the 32nd notes on 'A' and 'C'.

Example 3-6: Section A’, mm. 37-39. Idea 1-1 runs throughout the first movement and makes a large and fast crescendo at the end of first movement. *Piano Duet* by Pey-Wen Yen.

![Musical notation](image)
Idea 1-2 is derived from Idea 1-1 and is used to connect Idea 2-1 and 2-2. Idea 1-2 is an arch-like melodic line that shows emotional fluctuation that creates climaxes. It occurs three times. Each time it returns, the melody climbs higher than before.

During the first appearance of Idea 1-2 (mm. 7-8), the melody climbs a major 6th up from ‘B4’ to ‘Ab 5’ via a few leaps. This is coupled with an overall crescendo reaching forte at m. 7 and resulting in a meteoric climax. It is followed by a chromatic descending and dynamic slide down to complete the gesture (see Example 3-7).

Example 3-7: Section A, mm. 6-8. The first appearance of Idea 1-2 in the first movement of Piano Duet by Pey-Wen Yen.

‘B4’ climbs a major 6th up to ‘Ab 5’ via a few leaps.

In the second appearance of Idea 1-2 (mm. 11-12), the melody climbs higher from ‘B4’ to ‘C6’. Along with the jump of a minor seventh and the chromatic downward glide, the dynamic increase to ff and leads into Idea 2-1 (see Example 3-8).
Example 3-8: Section A, mm. 11-13. The second appearance of Idea 1-2 in the first movement of Piano Duet by Pey-Wen Yen.

In the third appearance of Idea 1-2, it takes a few more leaps for the melody to reach from ‘B4’ to ‘D#6’, the second highest note in this movement (see Example 3-9).

Example 3-9: Section A’, mm. 28-32. The third appearance of Idea 1-2 in the first movement of Piano Duet by Pey-Wen Yen.

(Cont.)
Idea 2

There are three forms for Idea 2 and they are labeled Idea 2-1, 2-2 and 2-3.

Placed below or above Idea 1, Idea 2-1 is a motive in the bass or high register that alternates between the tonic and dominant pitches or the tonic and subdominant pitches. In the first appearance of Idea 2-1, the motive is in the bass and moves to a sforzando perfect 5th ‘E2-B2’ that provides a tonal grounding for the first movement. In the second appearance of Idea 2-1, the bass motive is joined by its treble version in parallel perfect 4ths (see Example 3-10a, 3-10b). Idea 2-1 is later followed by Idea 2-2.
Example 3-10: Idea 2-1 in the first movement of *Piano Duet* by Pey-Wen Yen.

Example 3-10a: Section A-II, mm. 9-10: the first appearance of Idea 2-1.

Positioned above Idea 1, Idea 2-2 is formed by double notes that highlight the tonic (‘E’), the dominant (‘B’) and the submediant (‘C’) with different kinds of accents. Idea 2-2 leads to Idea 2-3 which functions as a closure of each section (see Example 3-11a, 3-11b).
Example 3-11: Idea 2-2 in the first movement of *Piano Duet* by Pey-Wen Yen.
Example 3-11a: Section A-II, mm. 13-18: First and second appearances of Idea 2-2.
Example 3-11b: Section A’-II, mm. 32-36. Third and fourth appearances of Idea 2-2.

Idea 2-3 (closing idea) is formed by two melodic lines of extreme registers that proceed in opposite directions from ‘B♭’ to ‘E.’ It is distinguished by the fact that among the five ideas, this is the only one where the sounds from the two pianos move in opposite directions. The treble part leaps upward from
‘Bb’ to ‘E,’ while its bass counterpart descends in stepwise motion, ‘Bb-Ab-Gb-F-E.’ As the two pianos are used to play identical or similar materials concurrently, their moving in opposite directions here seems to mean that the alliance between the two pianos is temporarily broken (see Example 3-12a, 3-12b).


Example 3-12b: section A’-II, mm. 37-38. The second appearance of Idea 2-3.
3.3.2 Movement II: In Mind

The second movement offers two different states of mind: dolce and scherzo. It has four sections, ABA’A. Section A (mm. 40-51) is formed by two basic ideas, I and II. Both idea I and II are in the mid to high register. Section B (mm. 52-89) is based on the material of section A, yet they’re given different kinds of characters, melodic shapes and registers. Section A’ (mm. 89-120) is an expanded version of section A. The last section (mm. 121-133), by contrast, is a curtailed version of the first section.

In terms of dynamic level, surface rhythm and register, section B has more dynamic fluctuations, a faster surface rhythm and covers a larger span of register than the other three sections in order to create a “scherzo” character.

The harmonic color is the core of the second movement. In section A, the entire section is a prolonged i of a-minor, but when combined with the inharmonic tones D♯ (lydian), Bb (phrygian), F♯ (borrowed IV), and C♯ (picardy III), the key shifts between tonality and modality. In section B, the harmony alternates between I, i, and V and also uses many non-harmonic tones to yield more color to the melody. The subsequent section A’ employs more chromatic tones than the other sections (see Table 3-3).

Table 3-3: Formal structure of the second movement In Mind of Piano Duet by Pey-Wen Yen.
Discussion of Individual Sections of *In Mind*

The discussion of individual sections will focus on the materials of each section and their developments.

**Section A (mm. 40-51)**

Section A consists of two basic ideas- idea I and II. Idea I is of primary importance as it is repeated, varied and harmonically altered in the subsequent sections.

Basic idea I is comprised of a syncopated rising perfect 4\(^{\text{th}}\) on the dominant and the tonic (‘E-A’ ) and is followed by several descending notes that start on either the tonic ‘A’ or the dominant ‘E’ on the off beat. The syncopated rising 4\(^{\text{th}}\) is an *ostinato* and forms an acoustic background for the whole piece. Outlining the second inversion triad of A-minor, the simple and sing-able melody seems to make the second movement more memorable than the outer ones with fast figurations (see Example 3-13).

Example 3-13: Section A, mm. 40-44 of the second movement *In Mind* of *Piano Duet* by Pey-Wen Yen. Basic idea I is comprised of descending notes accompanied by an *ostinato*.

![Example 3-13: Section A, mm. 40-44](image)
Basic idea I is followed by basic idea II that features repetitive notes and a “sigh” figure. The syncopated rising 4\(^{th}\) at times adds one more note and becomes ‘E-A-A,’ along with the repetitive notes or “sigh” figures on weak beats, resulting in a continuous flow of eighth notes which produces a faster surface rhythm (see Example 3-14).

Example 3-14: Section A, mm. 44-47 of the second movement *In Mind of Piano Duet* by Pey-Wen Yen. Basic idea II features repetitive notes and a “sigh” figure.

Following the basic idea II is a six-measure phrase that highlights a melody formed by basic idea II and I. Harmonically, this phrase is oscillating between the subdominant and the tonic in mm. 48-52. In m. 53, the harmony lands on I (Picardy third) and serves as a closure to section A (see Example 3-15).
Example 3-15: Section A, mm. 48-53 of the second movement *In Mind of Piano Duet* by Pey-Wen Yen. The melody formed by basic idea I and II (see brackets) appears after the first presentation of basic idea II.

Considering the interaction between the two pianos in section A, the materials of the two pianos are often doubled. However, there are moments when both pianists play different melodies (m. 42), pick up the melody from each other (m. 43), or form consonant intervals (m. 44) (see *Example 3-16*). As in the first movement, the listener will find it hard to differentiate between the two pianos. Yen did it
purposefully to make listeners wonder how the music is presented on the score.\textsuperscript{55}

Example 3-16: Section A, mm. 40-44 of the second movement \textit{In Mind} of \textit{Piano Duet} by Pey-Wen Yen. The interaction between the two pianos.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{example3-16.png}
\caption{Example 3-16: Section A, mm. 40-44 of the second movement \textit{In Mind} of \textit{Piano Duet} by Pey-Wen Yen.}
\end{figure}

\textbf{Section B (mm. 52-69)}

Section B of the second movement features a few transformations of basic idea I. The transformations can be categorized into two major types, and they both function as countermelodies to each other. Type one transformation is a florid melodic line in sixteenth notes which wanders in the upper parts of the two pianos and is played by the right hands. Type two transformation is the melody in eighth notes in the lower parts of both pianos and is articulated as either \textit{portato} or \textit{legato}. Type two transformation (the left-hand melody in eighth notes), according to Yen, is the “main stream” and is more important than the type one transformation (the right-hand melody) that predominates. When performing this passage, the left-hand melodic line must not be ignored, but must be articulated according to the notated score (see \textit{Example 3-17}).

\textsuperscript{55} Personal interview with Yen took place in her studio on May 2, 2009, Taipei.
Example 3-17: mm. 58-59 of the second movement *In Mind of Piano Duet* by Pey-Wen Yen. Transformation type one and two that are derived from basic idea I.

The two types of transformations of basic idea I at first stay in the high register and alternate with basic idea II from section A, as if they are chatting with each other (see Example 3-18).

Example 3-18: Section B, mm. 60-62 of the second movement *In Mind of Piano Duet* by Pey-Wen Yen. Transformation type I and II alternate with basic idea II in section B.

Then in m. 66, the two types of melody derived from the transformations begin to stroll downward to the lower register (see *Example 3-19*). While climbing back up to the higher register, both types of melodic material highlight the alternation of ‘A’ and ‘E’ in preparation of type three transformation of
basic idea I (mm. 68-70) (see Example 3-20).

Example 3-19: Section B, mm. 64-67 of the second movement *In Mind* of Piano Duet by Pey-Wen Yen. Transformation type one and two move downward from high to the lower register.

Example 3-20: Section B, mm. 68-70 of the second movement *In Mind* of Piano Duet by Pey-Wen Yen. Transformation type one and two move back up to the higher register by highlighting the alternation of ‘A’ and ‘E,’ in preparation of the type three transformation of basic idea I.
In m. 72, type three transformation appears. It is a florid melody in sixteenth notes in the treble register that embellishes the ascending ‘A-E’ line in mm. 68-70. It is superimposed with type two transformation as well as the octave or chordal form of basic idea I. The superimposition of the original and transformations of the basic idea I repeats twice in mm. 79-82 with alternations of material between the two pianos and a change in register. The polyphonic setting here presents one of Yen’s compositional conventions as mentioned earlier (see Example 3-21).

Example 3-21: Section B, mm. 72-76 of the second movement In Mind of Piano Duet by Pey-Wen Yen. Superimposition of transformation type two and three and basic idea I from section A. Note the eighth-note melody of type two transformation should be played legato in this example.
In mm. 76-77, a short passage featuring successive syncopation and repetitive notes on the tonic ‘A’ functions as a bridge between the repetition of the superimposition of the original and transformations of basic idea I in mm. 72-76 and mm. 79-82. The same passage shows up again at mm. 83-88 to connect section B and A’ with an expansion to six measures and the dynamic increases from p to ff. The expanded version of the bridge in mm. 83-88 also features a climbing ‘A-E’ which recalls the passage in mm. 68-70 (see Example 3-20 above) that leads to the type three transformation of basic idea I. According to the Yen, this figure is “a passionate link” that heats up the atmosphere through a dynamic increase from p to ff as well as propels the music to go to the next section (see Example 3-22, 3-23).

Example 3-22: Section B, mm. 76-77 of the second movement In Mind of Piano Duet by Pey-Wen Yen. The bridge between the repeats of the superimposition of basic idea I and its two transformations.
Section A’ (mm. 89-120)

Section A’ is an enlarged version of section A. The development of basic idea I and II in section A’ is based on note alteration, repetition and rhythmic augmentation. Note alteration dominates the first half of section A’ (mm. 89-104). A number of notes of the original melody in section A is lowered or lifted a half
step in section A’, creating subtle changes in harmonic colors. Rhythmic augmentation is applied to basic idea I in m. 101 which is the midpoint of section A’. Later it serves as the closure of In Mind. Example 3-24 a-c illustrates the development of basic idea I and II in section A’.

Example 3-24: The development of basic idea I and II in section A’ of the second movement In Mind of Piano Duet by Pey-Wen Yen.
Example 3-24a: Note alteration
1) mm. 40-41 in section A and mm. 93-94 in section A’: ‘E-D-C’ becomes ‘Eb-Db-C’; ‘A-G-D#’ is lowered a half step and becomes ‘Ab-Gb-D’

2) m. 42 in section A and m. 91 in section A’: ‘E-D-C-Bb’ becomes ‘E-D-C#-B’

(cont.)
Example 3-24a (cont.)
3) m. 43 in section A and m. 92, m. 96 in section A’: note alteration of ‘A-G-F#-G-A’.

Example 3-24b: Repetition
1) mm. 91-92 and mm. 97-99 of section A’: melodic fragments ‘E-D-C#-B’ and ‘B-A-G#-A-B’ are repeated.

(continuation)
Example 3-24b (cont.)

2) mm. 108-111 and mm. 114-117 of section A': the melody formed by basic idea I and II as well as basic idea II are repeated.

Section A'

Melody formed by basic idea II and I
That first appears in m. 48.

The two pianos double their materials in the 8-measure passage with the exceptions of m. 111, 115 and 117.
Example 3-24c: Rhythmic augmentation
m. 40 in section A and m. 101 in section A’: the basic idea I in section A is rhythmically augmented in section A’.

Interaction of the two pianos in section A’

As in section A, the interaction of the two pianos in section A’ is most represented by the two pianos doubling their materials (mm. 108-112, mm. 114-118, see Example 3-24 above). Every now and then, they exchange materials (mm. 119-120), play different melodies (mm. 95-97), form echos (m. 105, m. 107) or are placed a 3rd or a 6th apart (mm. 90-91) (see Examples 3-25a-d).
Example 3-25: interaction of the two pianos in section A’ of the second movement \textit{In Mind of Piano Duet} by Pey-Wen Yen.

Example 3-25a: mm. 119-120 of section A’. The two pianos exchange materials.

Example 3-25b: mm. 95-97 of section A’. The two pianos play countermelodies.
Example 3-25c: mm. 105-107 of section A’. The two pianos form echos.

![Image of Example 3-25c](image)

Example 3-25d: mm. 90-91 of section A’. The two pianos are placed a 6\textsuperscript{th} or a 3\textsuperscript{rd} apart.

![Image of Example 3-25d](image)

**Section A (mm. 121-133)**

The last section of the second movement, Section A, is not a literal recapitulation of the opening section. It restates the two basic ideas with the rhythmically-augmented melody of basic idea I (m. 126) appearing in section A’. The melody stops halfway on ‘D,’ ending unfinished and harmonically unsettled, which yields a desire for a resolution (see *Example 3-26*).
Example 3-26: Section A, m. 133. The end of the second movement *In Mind* of *Piano Duet* by Pey-Wen Yen is harmonically unstable.
3.3.3 Movement III: Wave

The third movement expresses a turbulent state of mind. It has four sections: A, B, C and D. Table 3-4 presents the general structure of Wave. The formal division is achieved through differences in figurations. Section A is formed by octaves and chords in the extreme registers of the piano. Section B is formed exclusively by octaves in triplets. Section C is a melody in octaves that is accompanied by broken chords in sextuplets. Section D is a melody in octaves accompanied by sixteenth-note sextuplets played by alternating hands. An increasing degree of intensity is created by a gradual diminution of the surface rhythm occurring along with each section.

The dynamic level of the four sections is different with section B and D being the more dramatic. Section B is responsible for accelerating the tempo from a quarter note equals 72 to a quarter note equals 84, preparing for the subsequent fervent drives of sixteenth notes in sections C and D.

The melodic progression of the four sections forms symmetry. The melodic progression of sections C and D mirrors that of sections A and B.
Table 3-4: Formal structure of the third movement *Wave of Piano Duet* by Pey-Wen Yen.

<table>
<thead>
<tr>
<th>Section (Meter)</th>
<th>A 5/4 → 4/4</th>
<th>B 4/4</th>
<th>C 3/4</th>
<th>D 3/4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measures</td>
<td>134-149</td>
<td>150-156</td>
<td>157-168</td>
<td>169-183</td>
</tr>
<tr>
<td>Phrase structure</td>
<td>One-part song form</td>
<td>One-part song form</td>
<td>Parallel period</td>
<td>Ternary</td>
</tr>
<tr>
<td>Surface rhythm</td>
<td>Increase from half note to sixteenth notes</td>
<td>Triplets in eighth notes</td>
<td>Sextuplets in sixteenth notes</td>
<td></td>
</tr>
<tr>
<td>Melodic progression</td>
<td>(D \rightarrow E) ((D \rightarrow A \rightarrow E))</td>
<td>(D \rightarrow Eb) ((D \rightarrow A \rightarrow Eb))</td>
<td>(Eb \rightarrow D)</td>
<td>(E \rightarrow D) ((Eb \rightarrow D, Ab \rightarrow D, F \rightarrow D))</td>
</tr>
<tr>
<td>Dynamic</td>
<td>(mf)</td>
<td>(mf \rightarrow fff)</td>
<td>(ff)</td>
<td>(pp \rightarrow f)</td>
</tr>
<tr>
<td>Register</td>
<td>Extreme ends</td>
<td>From bass to high register</td>
<td>Accompaniment in the middle register. Melody in high and bass.</td>
<td>Accompaniment in the high register. Melody spans across from low to high registers.</td>
</tr>
<tr>
<td>Tempo</td>
<td>Quarter note = 72</td>
<td></td>
<td></td>
<td>Quarter note = 84</td>
</tr>
</tbody>
</table>

Discussion of Individual Sections of *Wave*

**Section A (mm. 134-149)**

At the outset of section A, two sounds - a ‘D’ in the bass and a chord formed by the four tones emphasized in the previous two movements ‘D-A-E-B’ - are played simultaneously by the two pianos and “evoke the image of massive waves hitting the seashore.”\(^{56}\) The tonic ‘D’ in the bass and the right-hand chord on the dominant ‘A’ in the treble register not only create a magnificent opening for the third movement, but are the basis of materials for subsequent sections (see Example 3-27).

---

\(^{56}\) Personal interview with Yen took place in her studio on May 2, 2009, Taipei.
Example 3-27: Section A, mm. 134-135 of the third movement *Wave* of *Piano Duet* by Pey-Wen Yen. The opening two measures.

The two grand sounds ‘D-A’ come closer to each other in the order of a half note apart (m. 134), a quarter note apart (m. 136), an eighth note apart (m. 138), a sixteenth note apart in syncopation (m. 141), and finally the two pianos form a sixteenth-note quadruplet (m. 142) (see Example 3-28). With the approaching of the two sounds, the two performers have to be more and more watchful to each other in order to attack the sounds simultaneously.
Example 3-28: section A, mm. 134-143 of the third movement *Wave of Piano Duet* by Pey-Wen Yen. The two grand sounds ‘D-A’ come closer to each other between m. 134 and m. 141.

The rhythmic patterns of mm. 140-141 repeat from m. 142 to the end of section A (m. 149). Meanwhile, the highest note of the treble chord becomes ‘E’, thus the melody in both the bass and treble registers outlines perfect 5th’s ‘D-A-E’ which remind one of the tonics of the three movements of *Piano Duet* (see Example 3-29).
Example 3-29: Section A, mm. 144-149 of the third movement *Wave of Piano Duet* by Pey-Wen Yen. The rhythmic patterns of mm. 140-141 keep recurring from m. 143 to the end of section A (m. 149).

The ‘D-A-E’ are further developed and elaborated in the subsequent sections.

Section B (mm. 150-156)

In section B, the two sounds ‘D-A’ in the beginning of the third movement develop into a continuous melody in octaves and rhythmic unison in triplets that creates increasingly larger and higher waves throughout section B. With ‘D-A’ falling on the first beats of mm. 150-152, the arch-shaped melody in octave triplets is formed by perfect 5th, major and minor 2nd, augmented 4th, and major 3rd. Some triplets are grouped as inversions in m. 150 and m. 152. Hidden inside the arch-shaped wavy melody is a scalar ascent from ‘G’ to ‘E’ that will be followed by another scalar ascent from ‘F#’ to ‘Eb’ in mm. 153-155 (see Example 3-30, 3-31).
Example 3-30: Section B, mm. 150-152 of the third movement *Wave of Piano Duet* by Pey-Wen Yen. The arch-shaped octave melody in rhythmic unison triplets.

In m. 153, the arch-shaped melody played by piano I begins to change the shape with the canonic entry of piano II. Piano II is like a strong undercurrent that impels the wave of piano I even higher. The two pianos mostly form parallel 3\textsuperscript{rd}s or 6\textsuperscript{th}s. According to Yen, this passage expresses unquenchable spirits. Therefore, it has to be played at a fast speed with a gradual *accelerando* (see Example 3-30).\footnote{Personal interview with Yen took place in her studio on May 2, 2009, Taipei.}
Example 3-31: Section B, mm. 153-156 of the third movement *Wave* of *Piano Duet* by Pey-Wen Yen.

**Section C (mm. 157-183)**

Section C contains two subsections: section C-I (mm. 157-168, 12 measures) and section C-II (mm. 169-183, 15 measures). The two subsections are quite similar in materials except for a few pitch differences.
In section C, the melodic line ‘D-A-E’ from section A turns into driving sixteenth-note sextuplets in broken chords in the middle register. The sextuplets serve as an ostinato accompaniment throughout section C and propel the music to move forward at a speed faster than the previous section (see Example 3-32).

A new melody in octaves and rhythmic unison starts on ‘Eb’ (m. 157), picking up the last note played by piano I in section B (m. 155). The accented melody is suggested to be played majestically against its fervid accompaniment in driving sextuplets (see Example 3-32). Parts of the accented melody in octaves and rhythmic unison are extracted or fragmented from section B (mm. 165-166 = m. 152; m. 178= m. 150) (see Examples 3-33 and 3-34).

Example 3-32: Section C-I, mm. 157-158 of the third movement Wave of Piano Duet by Pey-Wen Yen. The new melody and accompaniment in section C.
Example 3-33: Section C-I, m. 161 of the third movement *Wave of Piano Duet* by Pey-Wen Yen. Parts of the new melody in octaves and rhythmic unison (m. 161) are extracted from the arch-shaped melody in section B (m. 150).

Example 3-34: Section C-I, mm. 165-166 of the third movement *Wave of Piano Duet of Piano Duet* by Pey-Wen Yen. Parts of the new melody in octaves and rhythmic unison (mm. 165-166) are fragments of the arch-shaped melody in section B (m. 152).

In general, melodic progression in section C-I moves from the note ‘Eb’ to a resolution on the tonic ‘D’. In section C-I, it takes 11 measures for ‘Eb’ to settle on ‘D’ while in section C-II, it takes a bit longer
(13 measures). Chromatic pitches are added during the resolution from ‘Eb’ to ‘D.’ Yen starts with the chromatic cluster within a major 3\textsuperscript{rd} ‘B-Eb’ in mm. 157-160. By gradually adding more notes into the chromatic cluster, it is expanded to a minor 6\textsuperscript{th} with the appearances of ‘A-E-Bb-G-G\#' between mm. 161-164, and finally to minor seventh with ‘E’ and ‘F’ showing up in m. 166. At this moment, all twelve chromatic pitches are present except the pitch ‘F\#,’ which is saved for later at the accented downbeat at m. 176 in section C-II (see Example 3-35).

Example 3-35: Section C-I, mm. 157-158, m. 161, mm. 163-164, m. 166 of the third movement Wave of Piano Duet by Pey-Wen Yen. Chromatic pitches added during Eb’s resolution to ‘D.’
Section C-II is basically identical with section C-I except for a few pitch differences. Significant differences occur in m. 176 and mm. 179-180. On the first beat of m. 176, the melody played by the right hand of piano I strikes ‘F#,’ signifying the completion of the twelve chromatic pitches from the beginning of section C (see Example 3-36). In mm. 179-180, the left hand of piano II plays a whole-tone melody that foreshadows the new melody in section D while the melody in triplets played by piano I is derived from section B (see Example 3-37).

Example 3-36: Section C-II, m. 176 of the third movement Wave of Piano Duet of Piano Duet by Pey-Wen Yen. The pitch ‘F#’ in m. 176 is placed on the downbeat to highlight the completion of twelve chromatic pitches from the beginning of section C.
Example 3-37: Section C-II, mm. 179-180 of the third movement *Wave* of *Piano Duet* of Piano Duet by Pey-Wen Yen.

Section D (mm. 184-218)

Section D is formed by section D-I (184-191, 8 measures), section D-II (192-204, 7 measures) and section D-III (mm. 205-218, 14 measures). The melody of the outer subsections start with whole tones: section D-I on whole tones ‘C-D-E-(F#)-G#-A#,’58 and section D-III on whole tones ‘C#-D#-F-(G)-A-B.’59 The melody in the middle section (section D-II) is also based on whole tones.

Although the melodic idea in section D-I and D-III is derived from the strongly-accented melody in section C and the arch-shaped melody from section B, it has to be played as mysteriously *pp* and *legato* as possible in section D. Yen states that the whole-tone melody is a hidden undercurrent with a threatening, fatal power and contains more tension than the accented melody in section C.

The accompaniment of the whole-tone melody in section D is an *ostinato* formed by relentless sixteenth-note sextuplets played with alternating hands. With an emphasis on the dominant ‘A,’ the sextuplets in section D-I are made of the same notes that section A and the accompaniment of section C are constructed on- ‘D-A-E.’ In section D-III, the sextuplets mainly stay on the tonic note ‘D’ (see

58 The ‘F#’ in the bracket is not included.
59 The ‘G’ in the bracket is not included.
Examples 3-38 and 3-39).

Example 3-38: Section D-I, mm. 185-187 of the third movement *Wave of Piano Duet* by Pey-Wen Yen. The melodic idea in section D-I is derived from the strongly-accented melody from section C and the arch-shaped oceanic melody from section B.

Example 3-39: Section D-III, mm. 205-213 of the third movement *Wave of Piano Duet* by Pey-Wen Yen. The whole-tone melody in section D-III.
The driving sextuplets in sixteenth notes played with alternating hands govern both pianos in section D-II. As illustrated in Example 3-37 and 3-38 above, the sextuplets emphasize ‘A’ in section D-I. In the end of section D-I (m. 190), however, the sextuplets of ‘D-A-E’ are transposed a half step down to ‘Db-Ab-Eb.’ Two measures later, a whole-tone based melody in triplets recalling the arch-shaped melody in section B emerges from the sextuplets and sounds in the high register (mm. 192-204). Yen states that “the whole-tone melody is searching for its final destination, ‘D’; at times it seems to ‘get lost.’” The two pianos both play in the treble register and double the melody most of the time. Some times, they are placed a 3rd or a 6th apart “for the sake of creating subtle color changes” (see Example 3-40a, 3-40b).

Example 3-40: The whole tone melody in section D-II of the third movement _Wave of Piano Duet_ by Pey-Wen Yen.
Example 3-40a: Section D-II, mm. 190-193. The whole tone melody is searching for the tonic notes ‘D.’

---

60 Personal interview with Yen took place in her studio on May 2, 2009, Taipei.
Example 3-40b: Section D-II, mm. 199-200. The whole-tone based melody gradually finds its destination ‘D.’

Example 3-41: Section D-III, mm. 213-218 of the third movement *Wave of Piano Duet* by Pey-Wen Yen. Approaching the end of the third movement.
3.4 Performance Issues in *Piano Duet*

*Piano Duet* is very challenging to the performers due to the fact that the two pianos share much of the same musical materials. In addition to requiring rhythmic unisons between the two pianos, many passages in *Piano Duet* require the performers to have matching timbres, dynamics, and identical pedal applications (movement I and II in particular).

In the first movement, tempo poses the main technical challenge for the performance. Yen states that she had pianists Men-Ru Yeh and Wei-Chi Lin’s virtuosic techniques in mind when composing this piece and indeed, the technique for the outer fast movements is demanding. Both pianists must be able to do fast note and chord repetitions from *pp* to *fff* at a minimum speed of a quarter note equals 112. Yen’s idea for this movement is that the two pianos must sound like one piano throughout; otherwise, the music not only loses the intimate feeling she had hoped to achieve through the two pianos sharing the same musical materials, but the sounds would become muddy. According to Yen, the two performers should be able to feel that “just by one look, I know what you’re going to do and you know what I’m going to do. Our mind and action progress concurrently.”\(^6^1\)

The second movement contains more contrapuntal treatment. Section B, for example, features a superimposition of basic idea 1 and its transformations. In such cases, one can cite Bartlett and Robertson on the performance of contrapuntal music: “In contrapuntal music,…, differences of tone color should be employed and orchestral effects can be obtained.”\(^6^2\)

In some passages in the second movement, the two pianos form 3\(^{rd}\)s and 6\(^{th}\)s. Here the tones produced by the two performers should approximate each other as closely as possible (see *Examples 3-13 through 3-17*).

In the third movement, each pianist needs to master the successive octaves of leaping intervals in sections B and D as well as the fast movement of hand alternations in section D before practicing with each other. A slow but attentive practice is required to achieve rhythmic synchronization.

A judicious planning for the performance of dynamic levels is crucial to giving the third movement a

---

\(^{6^1}\) Personal interview with Yen took place in her studio in Taipei on May 2, 2009.

\(^{6^2}\) Moldenhauer, 214. Ethel Bartlett (1896-1978, English pianist) and his husband Rae Robertson (1893-1956, Scottish pianist) used to be a famous two-piano duo, to whom Benjamin Britten dedicated a number of two-piano works.
solid structure of sonority. Although Yen wants a grand opening like massive waves hitting the seashore, the dynamic marking in the beginning of the third movement is only \textit{mf} for each part. The loudest dynamics should be saved for section B (\textit{fff}) and section C (\textit{ff}).

### 3.5 Summary of Piano Duet

The analysis of the three movements of \textit{Piano Duet} illustrates Yen’s use of distinctive motivic ideas and her techniques of transforming these ideas to express three different states of mind. The first movement, \textit{Understanding}, features a fast 16\textsuperscript{th} note \textit{ostinato} and succinct melody in eighth notes to test the rapport of the two pianos. The second movement, \textit{In Mind}, departs from a simple and lyrical melody in the high register which is transformed and spreads into the bass register in the middle section. This creates a sweet, warm, spacious and colorful sonic world. The third movement, \textit{Wave}, employs figurations that create musical imagery of waves from big oceanic tides to small but dangerous swirls.
CHAPTER 4

STUDIES No. 1, 2, 3

by CHING-WEN CHAO

Duration: ca. 14 minutes. Study No. 1 is approximately five minutes, Study No. 2 is approximately two and half minutes and Study No. 3 approximately six minutes.

Date of Composition: 1999

Premiere Performance: premiered by Ching-Wen Chao and Chris Johns at Stanford University in 1999.

4.1 Biography of Ching-Wen Chao

Chin-Wen Chao was born in 1973 in Taipei, Taiwan and is one of the most active and productive composers in Taiwan. Chao earned her Ph.D. from Stanford University and she now serves on the composition faculty at National Taiwan Normal University in Taipei, Taiwan. At Stanford, Chao studied with Jonathan Harvey, Brian Ferneyhough, Chris Chafe and Jean Claude-Risset. She has also studied with Mao-Shuen Chen. Chao’s expertise in composition is evident by her appointment as a guest lecturer at Stanford University in 2002-03.

Chao has won numerous prestigious awards for composition. She received first prize in the “Fanfare” composition contest held by the National Music Halls, “Young Composer’s Award” held by the Asian Composers League and “Music Taipei” held by the Council of Cultural Affairs in Taiwan. Her dissertation “Requiem Moska” resulted in Chao being the recipient of a one-year fellowship from the prestigious Chiang Ching Kuo Foundation for International Scholarly Exchange.

Aside from composing instrumental music, Chao has been collaborating with CCRMA (Center for Computer Research in Music Acoustics at Stanford University) and has become a leading figure in the field of electroacoustic music. Chao’s compositions have been performed by prestigious ensembles throughout the world: the Arditti String Quartet, California EAR Unit, St. Lawrence String Quartet, VOXNOVA, EARPLAY, the Eighth Blackbird, the CALARTS ensemble and Mathilde Housiangou from Klangforum Wien. Moreover, her compositions have been broadcast by Austrian Radio ORF and
Deutschladnradio Kultur Berlin.

Chao has frequently been invited to compose for important festivals for contemporary music around the world. These include the Dresden Modern Music Festival (Dresdner Tage Fuer Zeitgenoessische Musik) in Germany, 38eme Rugissant in France, International Computer Music Conference (ICMC), Colon Electronico Festival, The Modern Music Festival in Seoul, Korea, New Music Symposium, Music99 Festival in Cincinnati, Shanghai Music Conservatory in China and WOCMAT (Workshop on Computer Music and Audio Technology) in Taiwan.

4.2 Introduction of Studies No. 1, 2, 3

Studies No. 1, 2, 3 for two pianos were completed in 1999 during Chao’s study at Stanford University. It is an ongoing project. Chao intends to compose a series of studies for two pianos and there will be more in the future.

Program Notes of Studies No. 1, 2, 3

To compose a series of studies for 2 pianos has been one of my compositional plans for some time. The use of serial manipulation with pitch, rhythm, dynamics, density, texture, timbre, new techniques, etc., was intended to help to achieve a structurally unified world of interesting sounds and to demonstrate a wide range of expressions on the piano(s).

Study I explores the 2 contrasting entities: long and loud notes (foreground) against short and soft notes (background). Midway through the piece, the 2 roles seem to exchange. A 5\textsuperscript{4}[55]-note series overwhelms the piece pitch-wise. A series of prime numbers-1,3,5,7,11, and 13-decides the number of rapid notes for the succession of each phrase. Study II presents accented notes in extremely fast ascending scales between the 2 pianos and subsequently a slow descent with “harmonization.” Study III, while the third in this series, also belongs to a series of pieces dedicated to the memory of my father. As in all these dedicatory compositions, the pitches G# and C (his initials) are highlighted.\textsuperscript{63}

\textsuperscript{63} The program notes were written by Ching-Wen Chao.
4.3 Discussion of Individual Studies

4.3.1 Study No. 1

Study No. 1 was inspired by American composer Colon Nancarrow’s *Studies for Player Pianos, No.21 (Canon X)*. While studying Colon Nancarrow’s *Canon X*, Chao was fascinated by Nancarrow’s use of serial techniques to control musical parameters. Therefore, she applied a similar approach in *Studies No.1* by using “serial manipulation with pitch, rhythm, dynamics, density, texture, timbre” to “achieve a structurally unified world of interesting sounds and to demonstrate a wide range of expressions on the piano(s).” The following analysis of Study No. 1 focuses on how Chao uses predetermined numbers to control the three major musical parameters (pitch, rhythm and dynamics) that in turn influence other parameters (density, texture and timbre).

Study No. 1 uses a 55-note series placed in a frozen register to determine the pitch material. The 55-note series and its permutations provide the order of the pitches for the piece.

Pitch material of Study No. 1: 55-note series

Example 4-1 displays the 55-note series with reference numbers while example 4-2 is an excerpt of the 55-note series on the score. The 55-note series contains all 12 tones in which ‘D’ occurs the most often (7 times). The other notes are ‘G’ (6 times), ‘F-A-B-C’ (5 times each), ‘C#-E-A#’ (4 times each), ‘D#’ (3 times) and ‘F#-G#’ (2 times). The series has five groups of two repetitive notes (‘C#, G, A, C, D’, see boxes in Example 4-1), which, except for the last group which is an octave (‘D’), is in unison. Wider leaps (larger than octave) that result in sudden shifts of register often occur immediately prior to the repetitive notes (see circles of thin lines in Example 4-1). Minor 2nds occur the most often in the 55-note series, which totals 16 inclusive of its octave equivalents (major sevenths and minor ninths). The other intervals are 11 major 2nds, 7 minor 3rds, 9 major 3rds, 3 perfect 4ths and 3 augmented 4ths. Note that note number 7 (‘E5’), 29 (‘F4’), 30 (‘E3’) and 43 (‘E4’) are accented.

---

64 Program notes of Studies No.1-3 for two pianos.
65 The 55-note series is provided by Chao.
Example 4-1: Prime row of 55-note series of *Study No. 1* by Ching-Wen Chao.

Example 4-2: m. 1-3 (piano I), *Study No. 1* by Ching-Wen Chao. Note number 1-16 of the prime row of the 55-note series.

**Beginning of the 55-note series (prime form)**
Manipulation of the 55-note pitch series

Tables 4-1 and 4-2 show Chao’s manipulation of the 55-note series in both pianos. The series are presented 9 times (in original and varied forms) throughout the whole piece in both pianos. The methods used for the manipulation of the 55-note series are transposing the series, the use of retrograde forms and the fragmentation of the row.

While piano I adheres to the non-transposed version of the 55-note series, piano II explores retrograde and transpositions of the 55-note series. Chao comments on this by saying it is “as if piano I lives in the same space by recycling the original series, while piano II wanders around in the space.”

---

66 Chao’s lecture on Studies No.1-3 in the Symposium of Contemporary Music in Taiwan, which was held in 2004 by Shi-Fang-Yue-Ji (The Forum Percussion Ensemble), Taipei.
Table 4-1: The manipulation of the 55-note series in piano I of Study No. 1 by Ching-Wen Chao.

<table>
<thead>
<tr>
<th>Presentation</th>
<th>Starting Measure</th>
<th>Form of the 55-note series</th>
<th>Pattern</th>
<th>Total number of notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>m. 1</td>
<td>Original</td>
<td>Keep 1 note Erase 1 note</td>
<td>55</td>
</tr>
<tr>
<td>2</td>
<td>m. 16</td>
<td></td>
<td>2 notes</td>
<td>28</td>
</tr>
<tr>
<td>3</td>
<td>m. 20</td>
<td></td>
<td>3 notes</td>
<td>27 (28)</td>
</tr>
<tr>
<td>4</td>
<td>m. 26</td>
<td></td>
<td>4 notes</td>
<td>28</td>
</tr>
<tr>
<td>5</td>
<td>m. 36</td>
<td></td>
<td>5 notes</td>
<td>30 (31)</td>
</tr>
<tr>
<td>6</td>
<td>m. 40</td>
<td></td>
<td>6 notes</td>
<td>37</td>
</tr>
<tr>
<td>7</td>
<td>m. 44</td>
<td></td>
<td>7 notes</td>
<td>43</td>
</tr>
<tr>
<td>8</td>
<td>m. 58</td>
<td></td>
<td>Stop at the 5th note</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>m. 81</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4-2: The manipulation of the 55-note series in piano II of Study No. 1 by Ching-Wen Chao.

<table>
<thead>
<tr>
<th>Presentation</th>
<th>Starting Measure</th>
<th>Form of the 55-note series</th>
<th>Pattern</th>
<th>Total number of notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>m. 1</td>
<td>Retrograde m3 down</td>
<td>The entire 55-note series</td>
<td>55</td>
</tr>
<tr>
<td>2</td>
<td>m. 14</td>
<td>Retrograde m3 down</td>
<td>Keep 7 notes Erase 2 notes</td>
<td>42 (43)</td>
</tr>
<tr>
<td>3</td>
<td>m. 19</td>
<td>m2 up</td>
<td>6 notes</td>
<td>36 (37)</td>
</tr>
<tr>
<td>4</td>
<td>m. 26</td>
<td>M6 down</td>
<td>5 notes</td>
<td>31</td>
</tr>
<tr>
<td>5</td>
<td>m. 34</td>
<td>M6 up</td>
<td>4 notes</td>
<td>27 (28)</td>
</tr>
<tr>
<td>6</td>
<td>m. 37</td>
<td>M6 up</td>
<td>3 notes</td>
<td>28</td>
</tr>
<tr>
<td>7</td>
<td>m. 40</td>
<td>m3 up</td>
<td>2 notes</td>
<td>27 (28)</td>
</tr>
<tr>
<td>8</td>
<td>m. 52</td>
<td>Original</td>
<td>1 note</td>
<td>27 (28)</td>
</tr>
<tr>
<td>9</td>
<td>m. 61</td>
<td>Original</td>
<td>Stop at the 31st note</td>
<td>31</td>
</tr>
</tbody>
</table>

1) Fragmentation of the 55-note pitch series

The fragmentation of the 55-note series involves the procedure of keeping and erasing a certain amount of notes from the 55-note series. Table 4-3 shows that the fragmentation of the series can be grouped into seven patterns. The procedure of fragmentation pattern no.1 is keeping one note and erasing one note, which means that Chao keeps note number 1 and erases note number 2, then keeps note number
3 and erases note number 4, etc. Therefore, all the odd-numbered notes are kept while the even-numbered
notes of the 55 note series are erased by using fragmentation pattern no.1. Fragmentation pattern no.1 is
used in the second presentation of the series played by piano I and the eighth presentation of the series
played by piano II (see Tables 4-1 and 4-2 above).

Table 4-3: Seven fragmentation patterns of the 55-note series in Study No. 1 by Ching-Wen Chao.

<table>
<thead>
<tr>
<th>Pattern No.</th>
<th>Procedure of Fragmenting the 55-note Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 note</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>

As shown in table 4-1, the order of fragmentation in piano I follows the pattern 1-7 in table 4-3. In
piano I, the number of notes being preserved keeps increasing from 1 to 7 while the number of notes
being erased reaches from 1 to 4 as its maximum and then goes back down to 2. The order of
fragmentation for piano II is in reverse order of that of piano I (compare presentation 2-8 of piano I and II
in Tables 4-1 and 4-2).

Some of the total resulting number of notes that use the same fragmentation pattern differ between
the two pianos (see the last column of Tables 4-1 and 4-2). The correct resulting number of notes is put in
brackets beside the actual number collected from the score in tables 4-1 and 4-2. Two reasons account for
the discrepancy: the first reason is miscalculation. Some notes that should be preserved are
unintentionally erased by Chao. Consider presentation 5 of piano II, for example. Its fragmentation
pattern is “keep 4 notes and erase 4 pattern notes.” In the beginning of presentation 5, however, only 3
notes are kept. Therefore, the resulting number becomes 27 instead of 28 (see Example 4-3). The same
situation happens in the beginning of presentation 2 of piano I and presentation 7 of piano II as well as
near the end of presentation 2, 3, and 8 of piano II.
Example 4-3: m. 34, Study No. 1 by Ching-Wen Chao. The miscalculation at the beginning of presentation 5 of piano II.

**Presentation 5 of piano II**

Start with fragmenting the transposed (M6↑) 55-note series by ‘keeping 3 notes and erasing 4 notes’ from the original series, then continue by ‘keeping 4 notes and erasing 4 notes’.

The other reason is that the first note of a new presentation is erased due to the fragmentation pattern used by the previous presentation. This incident occurs in presentation 4 and 6 of piano I. Presentation 4 is supposed to start with the note ‘B,’ yet it starts with the second note ‘C#’ as the ‘B’ is erased by the pattern “keep 2 notes and erase 2 notes” of presentation 3 (see Example 4-4). The same procedure accounts for the missing first note in presentation 6 of piano I.

Example 4-4: m. 26, Study No. 1 by Ching-Wen Chao. The miscalculation in the beginning of presentation 4 of piano I.
2) Transposition and/or retrograde of the 55-note series

The retrograde transposition of the 55-note series to a minor 3\textsuperscript{rd} below in piano II appears in the first two presentations with a fragmented version in presentation 2 (see presentation 1 and 2 in Example 4-5 and 4-6). It is answered by a fragmented version of the original 55-note series that appears in the last two presentations.

Example 4-5: mm. 1-3, Study No. 1 by Ching-Wen Chao. The first twelve notes of presentation 1 of piano II (retrograde transposition of the 55-note series).

Example 4-6: mm. 14-17, Study No. 1 by Ching-Wen Chao. The first 18 notes of presentation 2 of piano II (retrograde transposition of the 55-note series plus fragmentation pattern no.7).
The other transpositions of the 55-note series are used in presentations 3 through 7 in the order of minor 2\textsuperscript{nd} above (presentation 3), major 6\textsuperscript{th} below (presentation 4), major 6\textsuperscript{th} above (presentation 5 and 6) and finally, minor 3\textsuperscript{rd} above (presentation 7). Note that the minor 3\textsuperscript{rd} downward transposition isn’t equal to the one that transposes a major 6\textsuperscript{th} upward. The transposition of a major 6\textsuperscript{th} above (presentation 5 and 6) is used to explore the high register and the highest note of Study No. 1, ‘F#,’ occurs in m. 38 of presentation 6. Likewise, the transposition of a minor 3\textsuperscript{rd} above isn’t equal to that of a major 6\textsuperscript{th} below. In the transposition of a major 6\textsuperscript{th} below (presentation 4), the lowest note of the first movement ‘C’ appears in m. 32 of presentation 4 (see Example 4-7 and 4-8).

Example 4-7: mm. 26-33, Study No. 1 by Ching-Wen Chao. The lowest note of Study No. 1, ‘C’ occurs in presentation 4 of piano II (see the circled note in m. 32).

\textbf{Presentation 4 of piano II}

Fragment the transposed 55-note series (M6\textsubscript{th}↓) by keeping 5 notes and erasing 4 notes from the transposed series.

Erase note no.15-18 ‘G-Eb-F#-E’

Erase note no.6-9 ‘F#-G-C-Db’

Erase note no.24-27 ‘C-D-Bb-B’

Erase note no.33-36 ‘E-D-Eb-Eb’

The lowest note of the Study No. 1
Example 4-8: mm. 37-38, *Study No. 1* by Ching-Wen Chao. The highest note of *Study No. 1*, ‘F#’ occurs in presentation 6 of piano II (see the circled note in m. 38).

**Presentation 6 of piano II**

Fragment the transposed (M6\uparrow M3↓ ) 55-note series by ‘keeping 3 notes and erasing 3 notes’ from the transposed series.

![Diagram](image)

The accents in the original 55-note series are preserved throughout the nine presentations of the series in piano I and in the transpositions to the minor 3\textsuperscript{rd} below as well as in the major 6\textsuperscript{th} transposition above in piano II. For other transpositions of the 55-note series in piano II, Chao applies the accents to different notes to articulate the end of a phrase (e.g. presentation 3, ‘Db’ which is the last note of m. 20 played by piano II; and presentation 7, ‘Ab’ which is the last note of m. 41 played by piano II) or to mark the beginning of a new phrase (e.g. presentation 4, ‘Ab’ which is the downbeat of m. 30) (see *Example 4-9* and *4-10*).
Example 4-9: mm. 20-21, *Study No. 1* by Ching-Wen Chao. The accent on ‘Db’ marks the end of a phrase (see circled note in m. 20).

**Presentation 3 of piano I**

‘keep 2 notes and erase 2 notes’ from the original series.

The new accent on ‘Db’ marks the end of a phrase.

**Presentation 3 of piano II**

‘keep 6 notes and erase 3 notes’ from the transposed series (m2nd†).

Example 4-10: mm. 29-31, *Study No. 1* by Ching-Wen Chao. The accent on ‘Ab’ marks the beginning of a phrase (see circled note in m. 30).

**Presentation 4 of piano I**

‘keep 3 notes and erase 3 notes’ from the original series.

The new accent on ‘Ab’ marks the beginning of a phrase.

**Presentation 4 of piano II**

‘keep 5 notes and erase 4 notes’ from the transposed series (M6th ↓).

**Rhythm and Dynamics in Study No. 1: Prime Number Series (9-5-1-7-11-3-1-13-9)**

In terms of rhythm and dynamics, Chao juxtaposes two contrasting entities - long and loud notes against short and soft notes - in both vertical and horizontal presentations (see *Examples 4-11*). A prime number series (1, 3, 5, 7, 9, 11 and 13) – determines the number of rapid, soft notes and the duration of
long, loud notes in each phrase. The duration of a long note is measured by applying eighth notes to the series.

Original Form of the Prime Number Series

Table 4-4 shows the original form of the prime number series. The prime number series is presented in eight lines. The first line has nine numbers and is characterized by the symmetrical placement of two numbers: 9 and 1 with 11 at the midpoint. Note also that the numbers 9 and 1 are eliminated near the end of the process. The rest of the prime number series is eliminated one number at a time from the previous series. The only exception occurs in the fifth line as it eliminates two numbers (5 and 9) from the fourth line. The order for the elimination of numbers is 13-11-7-“5-9”-1-9-3.

Table 4-4: Original form of the prime number series in Study No. 1 by Ching-Wen Chao.

9-5-1-7-11-3-1-13-9  
9-5-1-7-11-3-1-9 (erase the penultimate number: 13)  
9-5-1-7-3-1-9 (erase the middle number: 11)  
9-5-1-3-1-9 (erase the middle number: 7)  
9-1-3-1 (erase the second number: 5 and the last number: 9)  
9-1-3 (erase the last third number: 1)  
1-3 (erase the first number: 9)  
1 (erase 3)

Use of the Prime Number Series

If the prime number series represents the number of short notes, the first number “9” in the original form indicates that there are 9 short notes in a phrase. If the prime number series represents the duration of long notes, the first number “9” indicates that the long note of a phrase is formed by 9 “eighth notes” (see Example 4-11).

---

67 The figure series is provided by Chao.
Example 4-11: mm. 1-3, *Study No. 1* by Ching-Wen Chao. The two contrasting entities—long and loud notes against short and soft notes—are arranged by the prime number series.

The two pianos use different versions of the prime number series. The number of short notes and the duration of long notes played by piano I are decided by the original form of the prime number series while those of piano II are decided by the retrograde form of the prime number series. Such an arrangement is similar to a crab canon (see *Tables 4-5* and *4-6*). The number of short notes of piano I is presented according to the order of the prime number series. The duration of the long notes of piano I, however, follows only the first line of the prime number series as illustrated in table 4-4.

Note that the duration of long notes in piano I doesn’t follow exactly the order “9-5-1-7-11-3-1-13-9,” but repeats some numbers or moves back and forth between different numbers. Chao calls such a progression a “spiral movement” that she considers “a very musical presentation of the series.”

Table 4-6 shows that the same manipulation of the prime number series is also applied to piano II, in which the number of short notes is decided by the retrograde form of the prime number series while the duration of the long notes follows only the first line of the retrograde prime number series (9-13-1-3-11-7-5-9).

The prime number series used by the short and long notes are mixed together as the two contrasting

---

68 Personal interview with Chao took place on March 27th, 2009.
entities alternate in their appearances. The combined prime number series is shown in the bottom column of tables 4-5 and 4-6 in which the underlined, boldface and italic numbers represent the short notes while the rest of the numbers represent the duration of long notes. The superimposition of the combined prime number series of the two pianos creates two passages of high rhythmic density in the middle of the movement (page 2 and 3, see box), which is followed by a gradual drop of intensity (page 4 and 5, see dotted box).

Table 4-5: Prime number series used by piano I. Study No. 1 by Ching-Wen Chao.
Table 4-6: Prime number series used by piano II. Study No. 1 by Ching-Wen Chao.

<table>
<thead>
<tr>
<th>Piano II (number of short notes)</th>
<th>Piano II (duration of long notes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(m.1) 9-13-1-3-11-7-1-5-9</td>
<td>(m.1) 9-9-9-9-9-13-13</td>
</tr>
<tr>
<td>(m.18) 9-1-3-11-7-1-5-9</td>
<td>(m.18) 1-1-1-1-3-3-11-11-7-1-1</td>
</tr>
<tr>
<td>(m.28) 9-1-7-1-5-9</td>
<td>(m.28) 11-11-7-3-7-1-1</td>
</tr>
<tr>
<td>(m.36) 9-1-3-1-1-5-9</td>
<td>(m.36) 1-1-1-1-1-1</td>
</tr>
<tr>
<td>(m.40) 1-3-1-9-9</td>
<td>(m.40) 1-1-1-1-1-5-5-5-5-5-5-5-5-5-5-5-5-5-5</td>
</tr>
<tr>
<td>(m.57) 3-1-9</td>
<td>(m.57) 5-9-9-5-9</td>
</tr>
<tr>
<td>(m.63) 3-1</td>
<td>(m.63) 9-11-11-9</td>
</tr>
<tr>
<td>(m.70) 1-1</td>
<td>(m.70) 9-9-9-9-9-9-9-9-9-9</td>
</tr>
</tbody>
</table>

The two passages of high rhythmic density on pages 2 and 3 of the score result from the juxtaposition of short durations of long notes and long durations of short notes. The duration for long notes in both pianos stays static on “1” (one eighth note) while the number for short notes uses larger values (e.g. 5, 7, 9, 11, 13). Note that the second dense passage (page 3 in the score) is not only longer but has more syncopations within the minimum number for short notes (where one note is valued at a sixteenth note or a thirty-second note) that alternates with the minimum duration for the long notes (an eighth note) (see Examples 4-12 and 4-13).
Example 4-12: mm. 16-21, Study No. 1 by Ching-Wen Chao. The first passage of the highest rhythmic density.
Example 4-13: mm. 35-42, *Study No. 1* by Ching-Wen Chao. The second passage of the highest rhythmic density.

The quick drop of density in both pianos occurs after the second dense passage (see dotted boxes in Tables 4-5 and 4-6). As the prime number series that denotes short notes in both pianos approaches smaller numbers (e.g. 3 and 1) and the prime number series that denotes the duration for long notes approaches larger numbers (e.g. 5, 7, 9, 11, 13), there is a drop in density (see *Examples 4-14* and *4-15*). Some of the notes in both examples 4-14 and 4-15 are notated with a muting symbol “+,” which indicates that the note should be played with one hand placed on the strings inside the piano between the pin and the dampers while the other hand plays the note on the piano. The muting creates a *Guzheng*-like sound.
which infuses the music with a suggestion of Chinese music.\(^{69}\)

According to Chao, adding these symbols to create a timbral change is the last procedure of composition, and the application of a mute on a note is decided by the duration of the previous note. If the preceding note has a long rhythmic value, the following note may be muted as the previous note gives time for the performers to reach for the strings. As a result, the closer to the end of the movement where the durations for the long notes increase, Chao uses more muting effects.

Example 4-14: mm. 44-48, *Study No. 1* by Ching-Wen Chao. The beginning of the intensity drop after the second passage of the highest rhythmic density (circled notes are muted).

\(^{69}\) *Guzheng* (Chinese zither) is one of the most ancient Chinese traditional music instruments.
Example 4-15: mm. 73-83, *Study No. 1* by Ching-Wen Chao. The muting effects increase near the end of *Study No. 1*.

Dynamic changes for short notes

There is dynamic change for the short notes of piano I in the second passage of rhythmic intensity. In the beginning of the movement, the short notes are to be played softly (*ppp*) and long notes are loud (*f*). In the second dense passage, however, the dynamic of the short notes increase quickly from mezzo piano to double forte between mm. 40-42, elevating the short notes to the foreground (see Example 4-13 above). After the dense passage, however, the short notes gradually recede to the background because the dynamic decreases from forte (m. 47), mezzo forte (m. 55), piano (m. 58) and finally back to where it started *pianississimo* in m. 60 (see Example 4-16).
Example 4-16: m. 47, m. 55, m. 58, m. 60 of Study No. 1 by Ching-Wen Chao. Decrease in dynamics for short notes after the second passage of rhythmic density (see boxes).

**Summary of Study No. 1**

The analysis above illuminates Chao’s use of serial manipulation to control the pitch and rhythm (short and long notes) in Study No. 1. The serial process then influences the level of rhythmic density, the formation of pointillistic and polyphonic textures, the distribution of register and changes in timbre. The materials are highly unified and structured, creating a composition that is very interesting and full of variety. In the analysis of Study No. 2, Chao also sets up two contrasting entities and numbers still play an
important role in the organization of the musical parameters.
4.3.2 Study No. 2

Study No. 2 features “accented notes in extremely fast ascending scales between the two pianos and subsequently a slow descent with ‘harmonization.’” Based on the described contrasts in rhythm and gesture, Study No. 2 is divided into two sections. The other musical parameters of Study No. 2, such as pitch material, texture, and register, are constructed so that the opposition between the two sections is accentuated.

Formal Structure of Study No. 2

Section I (mm. 1-19) is formed by six types of fast ascending scales in thirty-second notes with imitative entrances played in *stretto* by the two pianos. Section II (mm. 21-59) comprises a descending chromatic line of sustained notes decorated by dissonant chords of various durations and/or fast ornamental ascending arpeggios. Table 4-7 presents the contrasts between the two sections in nine categories. The two sections are in every aspect contradictory to each other, yet also complement each other.

Table 4-7: Formal structure of Study No. 2 by Ching-Wen Chao.

<table>
<thead>
<tr>
<th>Section</th>
<th>I</th>
<th>II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measures</td>
<td>mm. 1-19</td>
<td>mm. 21-59</td>
</tr>
<tr>
<td>Time Signature</td>
<td>30/32 throughout</td>
<td>The denominator remains 4 throughout, while the numerator (1, 2, 3, 4, 5, 6, 8, 10, 12) changes each measure.</td>
</tr>
<tr>
<td>Figuration</td>
<td>scales in 32(^{nd}) notes</td>
<td>Long notes predominate, punctuated or decorated by succinct chords in 16(^{th}) notes or fast runs of notes.</td>
</tr>
<tr>
<td>Gesture</td>
<td>ascending</td>
<td>descending</td>
</tr>
<tr>
<td>Density</td>
<td>dense</td>
<td>sparse</td>
</tr>
<tr>
<td>Register</td>
<td>from bass to treble</td>
<td>more on middle and treble register</td>
</tr>
<tr>
<td>Dynamic</td>
<td>(sffz) and (pp)</td>
<td>more varieties</td>
</tr>
<tr>
<td>Texture</td>
<td>polyphonic <em>stretto</em></td>
<td>both polyphonic and chordal</td>
</tr>
<tr>
<td>Pitch Material</td>
<td>locrian scale and its five variations</td>
<td>pitch-set complex (013) + chromatic descent from B(^{5}) to B(^{3}).</td>
</tr>
</tbody>
</table>

70 Program notes of Study No. 2 by Ching-Wen Chao.
Discussion of Individual Sections of Study No. 2

Section I (mm. 1-19): Ascending Scales

The five scales appearing in section I are derived from the locrian mode that starts and ends on note ‘B.’ It is introduced by piano II at the very beginning of Study No. 2. The locrian scale consists of fifteen white notes in 32\textsuperscript{nd} notes that covers two octaves and is presented within a half measure. An accent is placed either on the first or the last note with the rest of the scale remaining pp. In section I, the locrian scale is presented eight times in different registers (see Example 4-17).

Example 4-17: The locrian scale of Study No. 2 by Ching-Wen Chao.

The locrian scale generates five additional scales, which are based on the alteration of some of the notes from the original scale with different locations for accents. Symmetrical arrangement is evident in the formation of the five variations of the original scale. The first two variations (variations 1 and 2) are formed by combining symmetrical and asymmetrical variations of the locrian scale. Variations 3-5 are symmetrical variations of the locrian scale. The five variations of the locrian scale are listed below.
according to the order of their first appearance.

Variation 1: the final note of the locrian scale is altered to be a black note (‘Bb’) which is highlighted with an accent. It is first introduced in m. 5 and appears three times in section I in two different registers: ‘B2-Bb4’, ‘B1-B3’ (see Example 4-18).

Example 4-18: Variation 1 of the locrian scale of Study No. 2 by Ching-Wen Chao.

Variation 2: the first note of the locrian scale is altered to be a black note ‘B-flat’ which is accented. It is first introduced in m. 6 and appears four times in section I in three different registers: ‘Bb3-B5,’ ‘Bb2-B4,’ and ‘Bb1-B3’ (see Example 4-19).

Example 4-19: Variation 2 of the locrian scale of Study No. 2 by Ching-Wen Chao.

Variation 3: the first and last notes of the locrian scale are altered to be black notes (‘Bb’) and an accent is placed on both of the black notes. It is first introduced in m. 6 and is presented in four different registers: ‘Bb4-Bb6,’ ‘Bb3-Bb5,’ ‘Bb2-Bb4,’ ‘Bb1-Bb3.’ Variation 3, along with variation 5, is required to repeat indefinitely in the unmetered measure (m. 16) for approximately five seconds (see Example 4-20).
Example 4-20: Variation 3 of the locrian scale of *Study No. 2* by Ching-Wen Chao.

Variation 4: The middle note of the locrian scale is altered to be a black note (‘Bb’) and is accented. Variation 4 is first introduced in m. 7 and is presented only once in section I in the register ‘B1-B3’ (see Example 4-21).

Example 4-21: Variation 4 of the locrian scale of *Study No. 2* by Ching-Wen Chao.

Variation 5: ten notes of the locrian scale are altered to be black notes. The black notes ‘C#-D#-Gb-Ab-Bb’ form a pentatonic scale. The black notes (10) outnumber white notes (5) and the two are combined to form a symmetrical structure. It is first introduced in m. 10 with the accent placed on the last note. In the other presentations of variation 5, accents are placed at both ends (see Example 4-22).
Presentation of the Locrian Scale and its Five Variations in Section I

Table 4-8 presents the six scales of section I (the locrian scale plus five variations), in which piano I and II alternate scales. The top line shows that the presentation of the six scales of section I is separated by a number of breaks (silences) of various durations. The longest break (52 thirty-second rests) divides section I into two subsections of slightly unequal length. The complete silence of subsection I totals 44 thirty-second rests while that of subsection II totals 45.

The second line shows that there are fourteen presentations of the scales in subsection I and thirteen presentations (minimum) in subsection II. Most of the presentations are in *stretto* to create textural intensity. The accent(s) associated with each scale stand out from the extremely fast scales and add more interest to an already dramatic texture. In the first subsection, the pitch materials evolve from the locrian scale to variation 4 and the register shifts from high to low. After the long silence in mm. 8-9 (52 thirty-second rests) comes subsection II where the locrian scale no longer appears. Instead variation 5 which contains ten black notes is introduced, followed by the least varied scale (variation 1). This succession of scales forms a contrast. After another long pause (37 thirty-second rests), the variations are presented in all registers and finally only variation 3 and variation 5 are left. Variations 3 and 5 are repeated for approximately five seconds in any register which is determined by the performer’s choice.

This register distribution creates a wide and static sound field before surging up to the first chord of section II. The first chord of section II (m. 20) centers on the arch-shaped gesture formed by the previous ascending scales and the following descending scale (see *Example 4-25*).
Table 4-8: The presentation of the six scales in section I of *Study No. 2* by Ching-Wen Chao.

<table>
<thead>
<tr>
<th>Subsection I</th>
<th>Subsection II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rests between presentations</td>
<td>30 7 7 52</td>
</tr>
<tr>
<td>Presentations</td>
<td>1 2 3 8</td>
</tr>
<tr>
<td>In stretto *</td>
<td>2 2 2-2-3</td>
</tr>
</tbody>
</table>

| Scales       | Locrian Locrian Locrian | Locrian Var.5 Var.1 Var.3  | Var.3 Var.5 Var.3 Var.5 . . | Var.3 Var.4 . . | Var.2 . . |

| Register area | mid-high | mid-bass | high-bass | random choice |

* If there are two presentations in *stretto* (e.g. the one between 30 thirty-second rests and 7 thirty-second rests), it means that the first presentation of the locrian scale is interrupted by the second presentation of the locrian scale at the midpoint, and the two presentations partially overlap (see *Example 4-23*). If the *stretto* is presented as two-two-three (like the *stretto* between 7 thirty-second rests and 52 thirty-second rests), it means that the presentations in *stretto* are grouped as two, two and three (see *Example 4-24*).
Example 4-23: mm. 2-3 of Study No. 2 by Ching-Wen Chao. The \textit{stretto} between 30 thirty-second rests and the 7 thirty-second rests.

Example 4-24: mm. 5-8 of Study No. 2 by Ching-Wen Chao. The \textit{stretto} between 7 thirty-second rests and 52 thirty-second rests are grouped as two, two, three.
Example 4-25: m. 20, the first chord of section II in Study No. 2 by Ching-Wen Chao.

Section II (mm. 21-59): Descending Scale with Chordal Decorations

Section II comprises a series of chords built upon combinations of the (013) trichord. Note that (013) is the first three notes of the locrian scale ‘B-C-D’ at the very beginning of Study No. 2. These chords are connected by a descending chromatic scale that starts on ‘B5’ and moves to ‘B3’ colored by a low ‘Bb1.’ The linear motion embedded in the chords can be categorized as a new scale variation (variation 6), the only one of the seven scales (including the locrian scale) that is stretched in duration and harmonized by chords of all kinds (see Table 4-9). Note that except in m. 41 and m. 57, where the chords are formed exclusively by semitones, the other chords being generated by combinations of the (013) trichord. For example, m. 22 is ‘Bb-B-C#’ or (013), m. 24 is ‘F#-G-G#-A-B-E’ where ‘E-F#-G’ is (013) and ‘G#-A-B’ is (013) (see Example 4-26).

As illustrated by table 4-9, the descending chromatic scale is shared by the two pianos. Some notes are first introduced with a softer dynamic, followed by a louder dynamic to confirm their existence (e.g. ‘A’ and ‘G#’). Sometimes, Chao juxtaposes the note which is emphasized with a note that is previously or will later be highlighted (e.g. ‘Bb-A’ in m. 24 in Example 4-26 and ‘A-G#’ in m. 26).

At m. 42 there is a break of four quarter note rests, which divides section II into two parts, recalling the two-part structure of section I (see m. 42 in Example 4-26). Starting with m. 46, some highlighted notes are decorated by fast ascending arpeggios, which Chao claim’s to be a preview of Study No. 3 (see
Example 4-27).

Table 4-9: Embedded descending chromatic scale (variation 6 of the locrian scale) in the second part of Study No. 2 by Ching-Wen Chao.

<table>
<thead>
<tr>
<th>mms</th>
<th>20</th>
<th>22</th>
<th>24</th>
<th>26</th>
<th>31</th>
<th>33</th>
<th>36</th>
<th>40</th>
<th>41</th>
<th>42</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piano I</td>
<td>B</td>
<td>Bb</td>
<td>G #</td>
<td>Ab</td>
<td>F #</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>f'descres.</td>
<td></td>
<td></td>
<td>mp</td>
<td>sf'</td>
<td>sf'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Piano II</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>G</td>
<td>F</td>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>sf'</td>
<td>mp</td>
<td>ff</td>
<td>sf'</td>
<td>f</td>
<td>sf'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chromatic cluster: F-F # -G-G # -A- A # -B-C-C #

<table>
<thead>
<tr>
<th>mms</th>
<th>44</th>
<th>47</th>
<th>48</th>
<th>52</th>
<th>53</th>
<th>55</th>
<th>56</th>
<th>57</th>
<th>59</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piano I</td>
<td>D #</td>
<td>D</td>
<td>C #</td>
<td>Bb</td>
<td>A</td>
<td>G</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>f</td>
<td>f</td>
<td>sf'</td>
<td>mf</td>
<td>&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Piano II</td>
<td>E</td>
<td>Eb</td>
<td>C</td>
<td>B</td>
<td>Bb</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>f</td>
<td>p</td>
<td>f</td>
<td>sff</td>
<td>f</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Juxtaposition of two tetrachords ‘G-A-B-C’ and ‘D # -E-F # -G # ’ (set (0135) in opposing dynamic, pp and sff.)
Example 4-26: m. 22, m. 24, mm. 41-42, m. 57 of Study No. 2 by Ching-Wen Chao. The chords in section II of Study No. 2 are formed by combinations of the (013) trichord, except for the chords before the middle break (m. 41) and close to the end (m. 57).

Combination of two (013) trichords:
‘E-F#-G’ (013) and ‘G#-A-B’ (013)

This chord foreshadows the note ‘A’ that is to be emphasized next in m.26.

The (013) chord highlights ‘Bb’ and reviews the ‘B’ that has been emphasized in the previous chord (m.20).

A chromatic cluster splits into two chords in m.57:
‘E-F-Gb-Gb-A-Bb-B’
Note each note of the chords is released in different points of time.
Example 4-27: m. 46 of *Study No. 2* and the G#-12 phrase from *Study No. 3* by Ching-Wen Chao. Fast ascending arpeggios in section II of *Study No. 2* foreshadow the figuration of *Study No. 3*.

![Example 4-27: m. 46 of Study No. 2 and the G#-12 phrase from Study No. 3 by Ching-Wen Chao. Fast ascending arpeggios in section II of Study No. 2 foreshadow the figuration of Study No. 3.](image)

**Summary of Study No. 2**

*Study No. 2* by Ching-Wen Chao departs from a simple idea: a fast ascent opposed by a slow descent. The analysis above illuminates how Chao gives life to this idea by designing seven unique scales (six variations plus the original) that nevertheless share a structural similarity in their use of accents, polyphonic techniques that create intensity, and contrasts of horizontal and vertical textures. These techniques achieve both opposition and balance within the structure.
4.3.3 Study No. 3

Study No. 3 by Ching-Wen Chao demonstrates an important feature of Chao’s music that is claimed by Chao to be her signature mark: heterophony. This feature is derived from Beiguan music, one of the main genres of Han Chinese traditional music.

The definition of “heterophony” in Grove Dictionary is a term used to describe simultaneous variations of a single melody. In Chinese Beiguan music, heterophony results from different instruments playing the same melody that is notated on Gong Che Pu. It is the performance practice that the musicians freely add ornaments (called Jia Hua) to the melody. Heterophony is formed when the melody is played by all the instruments in a Beiguan ensemble as there will be differences in the timing and ornamentations for each part (see Example 4-28).

Example 4-28: Melody of Beiguan music can be improvised with ornaments.

Heterophony in Chao’s Music

Use of heterophony can be illustrated in three of Chao’s recent compositions: Departure Tracings (2004) for flute, clarinet, violin, violoncello, piano and percussion and Retenir (2005) for flute, oboe, cello, piano and two percussion and Study No. 3 for two pianos (1999). Retenir recalls Beiguan music in a dream-like setting with a heterophonic texture formed by the flute, oboe and cello. The melody focuses on a minor 2\textsuperscript{nd} and an augmented 4\textsuperscript{th}, creating a mysterious atmosphere (see Example 4-29).

---

72 Gong Che Pu (Gongche notation) is a heptatonic notation system. The seven notes of the scale in Gongche notation system is called shàng, chè, gòng, fân, liù, wǔ, yì.
73 The example is taken from Chao’s self-authored book, A Discussion of My Recent Composition, 19.
In *Study No. 3* by Ching-Wen Chao, heterophony is formed by the two pianos playing the same or different melodies with written-out ornaments. The melody is notated as eighth notes with the stems pointing down. The ornaments are the smaller eighth notes with the stems pointing up and an oblique slash. An important feature of Chao’s notation of *Study No. 3* is that there is no bar line in each treble staff, which reinforces the heterophony. When the two pianos play the same melody, there are minute discrepancies in the timing and the desired heterophonic effect is created (see *Example 4-30*).
Example 4-30: Use of heterophony in *Study No. 3* by Ching-Wen Chao.

In addition to demonstrating Chao’s use of heterophony, *Study No. 3* is the first of a series of compositions in memory of the death of Chao’s father, Gen-Sheng Chao. The initials of her father’s name, CGS, become the two highlighted pitches in this movement: ‘C’ and ‘G#.’

**Importance of Notes ‘C’ and ‘G#’ in Study No. 3 by Ching-Wen Chao**

The notes ‘C’ and ‘G#’ serve as a reference point for a departure as well as the destination of the movement. In this three-page movement, there are 19 phrases. Each unbarred treble staff on the score is a phrase. Each phrase contains a certain number of notes in a frozen register and begins with either ‘C’ or ‘G#.’ A phrase that begins with ‘G#’ and has 12 different pitches is labeled as G#-12. This label is placed directly above the beginning of each phrase (see *Example 4-31*). The pitch ‘C’ has a maximum of 7 different pitches in its phrases while ‘G#’ has a maximum of 12 different pitches in its phrases.

Example 4-31: Phrases G#-12 and C-7 in *Study No. 3* by Ching-Wen Chao.
At the end of the piece, piano I is on the C-1 phrase and piano II plays the G#-1 phrase, all other notes having been eliminated. Only the two “cells” or “seeds” on ‘C’ and ‘G#’ remain that suggests sublime bells ringing (See Example 4-32).

Example 4-32: Phrases C-1 and G#-1 at the end of Study No. 3 by Ching-Wen Chao.

Pitch Material for Study No. 3 by Ching-Wen Chao

Phrases that begin with ‘G#’ or ‘C’ have different pitch materials. Example 4-33 displays the 12 different pitches of appear in phrases that begin with ‘G’ and the 7 different pitches in C phrases in frozen register. Note that all the pitches of the G# phrase and the C phrase are above middle C (Between C4-C7). When being asked about her emphasis on the high register, Chao said that since Study No. 3 is in memory of the death of her father, using the high register evokes the heavenly image and a transcendental feeling.74

---

74 High register is emphasized not only in Study No.2 and No.3 but also in Chao’s other major works, such as Departure Tracings (2004, also dedicated to Chao’s father) and Retenir (2005).
Example 4-33: the pitch collections of the G# phrase group and the C phrase group. Study No. 3 by Ching-Wen Chao.

The twelve notes in frozen register in the G# phrase group (displayed in chromatic order):

The seven notes in frozen register in the C phrase group:

The order for eliminating the pitches from the 12 different pitches of the G# phrase and the 7 pitches of the C phrase, or the “process of purification” as described by Chao, is decided by a self-inverted pitch class set (0257), which is the subset of a pentatonic scale (see Example 4-34). Therefore, as the number of notes are reduced in the G# phrase and the C phrase groups, the more consonant or pitches from the pentatonic scale remain. The pentatonic scale helps project the suggestion of Chinese music. Chao’s teacher at Harvard University, Jonathan Harvey, commented after listening to Study No. 3: “it’s like a promenade from the West to the East.”

---

75 During the author’s interview with Chao on March 27 in 2009, she commented that erasing the notes step by step is like purifying the soul.
76 Personal interview with Chao at the National Taiwan Normal University on March 27, 2009, Taipei.
Example 4-34: Order for the elimination of pitches from the G# phrase group and the C phrase group. Study No. 3 by Ching-Wen Chao.

Order of eliminating the pitches in the G# phrase group:

Order of eliminating the pitches in the C phrase group:

When placing the C phrase groups in the order of C-7 to C-1, a pitch that occurs 7 times in a phrase is the note to be eliminated in the next phrase. For example, there are seven ‘D#’ in the C-7 phrase and ‘D#’ is erased in C-6 (see Example 4-35). At the end of Study No. 3, there are 7 notes in each of the remaining two phrases ‘C-1’ and ‘G#-1’ (see Example 4-32).
Example 4-35: The rule for eliminating a pitch in a given phrase. Study No. 3 by Ching-Wen Chao.

The pitch that appears seven times in C-7 phrase is erased in C-6 phrase.
This rule of eliminating a pitch applies to all phrases that start with ‘C’ and ‘G#’.

Pitch ‘D#’ that appears seven times in C-7 phrase is eliminated in C-6 phrase.

Pitch ‘F#’ that appears seven times in C-6 phrase is eliminated in C-5 phrase.

Manipulation of the 19 Phrases

According to the performance instructions for Study No. 3 provided by Chao, the 19 phases are divided into three cycles. There is a pause between each phrase in a cycle. Each cycle consists of seven phrases. Except for the choice of the seven phrases for the second cycle which is left to the performers, the order of the seven phrases in the first and the third cycle is notated by Chao (see Table 4-10). Note that there are seven phrases appearing in both the first and the third cycles: G#-7, G#-6, C6, C5, G#-4, G#-2, G#-1 (arranged by decreasing number of notes).

In the first cycle, the seven phrases played by piano I all start with ‘G#’ and both pianos start with a phrase consisting of seven notes. Phrases of piano I gradually increase by one pitch per phrase while piano II gradually loses one or two pitches per phrase. It is like the two pianos head toward different directions but at the same time, they are complementary to each other. In the second cycle, the performers freely choose seven phrases from the 19 available phrases. Under the “principle of purification,” the order selected must decrease in the number of notes (e.g. C-12, G#-10, G#-8, C-7, C-4, G#-2, C-1), so it is “a
limited indeterminacy.” Since phrases C-7 and C-3 are not played in the first or third cycles, the author suggests that these two lines should be explored in the second cycle. In the third cycle, both pianos head toward the same direction by playing the phrases in the order of decreasing numbers. Meanwhile, Chao tends to arrange the music so that the two pianos start with different notes, except the G#-5 phrase. When piano I performs a phrase that starts with ‘G#,’ piano II is arranged so that it plays a phrase that starts with ‘C.’ At the end of the third cycle, there are only two notes left, which are ‘C’ and ‘G#,’ the notes representing the initials of Chao’s father.

In the first and third cycles, there is one phrase that is played by both of the pianos. Chao claims that even though the pianists play the same material and are required to start and end a phrase at the same time, there is a naturally and subtle difference in timing that creates the desired heterophonic effect. In the first phrase of the first cycle, the two pianos double the phrase G#-7; in the third phrase of the third cycle, they double the phrase G#-5. In the second cycle, the possibility exists that both pianists will choose to play the same phrase at the same time (see Table 4-10).

Table 4-10: The first and third cycles of Study No. 3 by Ching-Wen Chao.

<table>
<thead>
<tr>
<th>Cycle</th>
<th>1st cycle</th>
<th>3rd cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piano</td>
<td>I</td>
<td>II</td>
</tr>
<tr>
<td>Phrase 1</td>
<td>G#-7</td>
<td>G#-7</td>
</tr>
<tr>
<td>Phrase 2</td>
<td>G#-7</td>
<td>G#-6</td>
</tr>
<tr>
<td>Phrase 3</td>
<td>G#-8</td>
<td>C-6</td>
</tr>
<tr>
<td>Phrase 4</td>
<td>G#-9</td>
<td>C-5</td>
</tr>
<tr>
<td>Phrase 5</td>
<td>G#-10</td>
<td>G#-4</td>
</tr>
<tr>
<td>Phrase 6</td>
<td>G#-11</td>
<td>G#-2</td>
</tr>
<tr>
<td>Phrase 7</td>
<td>G#-12</td>
<td>G#-1</td>
</tr>
<tr>
<td>Total duration (approximate)</td>
<td>56-63 sec.</td>
<td>133-147 sec.</td>
</tr>
</tbody>
</table>

77 Performance instructions for Study No.3.
Duration of Each Phrase in Each of the Three Cycles

According to the performance instructions, the first cycle is the shortest. Then the sense of time gradually relaxes and the last cycle becomes the longest (see Table 4-10 above). In the first cycle, it takes about seven seconds to play every phrase, plus the one to two seconds for the pauses between phrases (56-63 sec.). In the second cycle, it takes ten seconds for each phrase and three to four seconds for the pauses (91-98 sec.). In the third cycle, it takes fourteen seconds for each phrase and five to seven seconds for the pauses (133-147 sec.). The gradual increase of the duration of each phrase and the pause between the phrases create a gradual decrease of the intensity, which seems to suggest Chao’s letting go of her father. Although the whole piece only lasts for approximately six minutes, Study No. 3 ends with a spiritual, transcendental and eternal feeling.78

The Role of the Number “Seven” in Study No. 3

From the analysis of Chao’s precompositional plan for Study No. 3, the prevalence of number “seven” is obvious. First of all, the ‘C’ phrase group has seven different pitches as its maximum number. Secondly, the note that appears seven times in a given phrase is the note to be eliminated in the next phrase. Moreover, each cycle has seven phrases. Then, the first phrase played by the two pianos in the first cycle contains seven different pitches. In addition, there are seven phrases appearing in each of the three cycles and there are seven phrases appearing both in the first and third cycles. Finally, each phrase in the first cycle lasts seven seconds and each phrase in the third cycle lasts 14 seconds (twice as long as each phrase in the first cycle).

Chao explains that the recurrence of number “seven” relates to the Chinese funeral custom.79 In the Chinese funeral custom, the funeral ceremony traditionally lasts over forty nine days - the first seven being the most important as the Chinese believe that the seventh day after the death of a person, the soul returns to his/her home. The ritual spirit thus becomes a significant subtext for Study No. 3.

78 Personal interview with Chao at the National Taiwan Normal University on March 27, 2009, Taipei.
79 Chao’s lecture on Studies No.1-3 in the Symposium of Contemporary Music in Taiwan, which was held in 2004 by Shi-Fang-Yue-Ji (The Forum Percussion Ensemble), Taipei.
4.4 Performance Issues in Study No. 1, 2, 3

Study No. 1 is the most difficult piece to perform among the three studies. The major challenge in performing Study No. 1 is rhythm. The complex subdivisions in both piano parts require the two performers to listen and feel each attack. The two performers are suggested to find reference points to listen to each other, making sure that they are in the same measure, especially in the two passages of high rhythmic density.

The other challenge to the performers is to play inside the piano. Both performers have to be very familiar with the location of the strings for each muted note so that they can be played in time. The muted notes should be marked on the strings before performance. Example 4-36 displays the notes that have muting effects in each piano part.

Example 4-36: Notes with muting effect in Study No. 1 by Ching-Wen Chao.

Piano I: 13 notes with muting effects

Piano II: 23 notes with muting effects

The first important thing about performing Study No. 2 is that the dynamic contrast between the accented notes and the rest of the scale in section I must be highlighted. The performers should find appropriate fingers for each scale to achieve the desired effect.

The stretto entrances of the scales in section I pose a challenge to the ensemble when performing Study No. 2. Sometimes the scales in stretto are 7 thirty-seconds apart, sometimes more (e.g. m. 7 and m. 15) or less (e.g. m. 16). The two pianos are suggested to count two for each measure while listening to each other’s playing attentively in order to enter at the right time. Otherwise, not only will the interest
provided by the accented notes be reduced, but the individual properties of each scale will not be heard clearly.

Chao provides detailed performance instructions for *Study No. 3*, which is shown in example 4-37. During the author’s interview with Chao, she stressed three important issues for the performance of *Study No. 3*:

1. Performers must decide on the dynamic levels for each cycle and the dynamic control should adjust to the acoustics of the different performance venues. Chao suggests that *Study No. 3* should begin with a louder sound, and when fewer notes are in each phrase, the dynamic should become softer.

2. The composer emphasized that the performers should not play any wrong notes. As every note is frozen in register, one missing or displaced note results in the wrong harmony and destroys the unique sounding or sonority of the movement.

3. The tone quality of each note must be crystal clean and precise, and the “expressiveness” in Romantic style should be avoided.

Pianist Hsin-Jie Lin, one of the performers that have done numerous performances of *Studies No. 1-3* suggests that a stopwatch or a metronome should be used at the initial stage of practice to measure the exact timing for each phrase and pause. The performers will gradually get used to this timing.\(^\text{80}\)

---

\(^\text{80}\) Pianist Hsin-Jie Lin spoke in Chao’s lecture on *Studies No.1-3* in the Symposium of Contemporary Music in Taiwan, which was held in 2004 by *Shi-Fang-Yue-Ji* (The Forum Percussion Ensemble), Taipei.
Example 4-37: Performance instructions for Study No. 3 by Ching-Wen Chao.

**Study III**  --for 2 pianos

by Ching-Wen Chao

**Performance instructions**

1) manage to have all 3 pages been seen while performing.

2) each line is a “phrase.” 2 pianos always start and end a line simultaneously. Cued by piano 1. One pedal a line.

3) **ORDER:** the entire piece includes 3 cycles. Every cycle consists of 7 lines. Piano 1 reads the numbers on the very left; piano 2 on the right.

   - **1st cycle:** circled number 1-7. (⊙, ⊙, ⊙, ⊙, ⊙, ⊙, ⊙)
   - **2nd cycle:** decided by performers in the performance. Under the principle of “purification,” please order the 7 lines by decreased note-numbers (e.g. G♯-11, G♯-10, C-7, G♯-7, C-6, ..., etc.).
   - **3rd cycle:** Roman numerals I-VII.

3) **DURATION:**

   - **1st cycle:** approx. 7 seconds every single line; 1-2 seconds every pause in between these lines.
   - **2nd cycle:** approx. 10 seconds every single line; 3-4 seconds every pause in between these lines.
   - **3rd cycle:** approx. 14 seconds every single line; 5-7 seconds every pause in between these lines.

**4.5 Summary of Studies No. 1, 2, 3**

Studies No. 1-3 illuminates Chao’s use of numbers to control musical parameters. The numbers provide the values for the pitch and rhythm in Study No. 1, the formation of the scales and harmony in Study No. 2, and the arrangement of pitch materials in Study No. 3. In addition to the use of numbers, each study focuses on a particular idea that creates contrasts and balance: the short and soft notes against long and loud notes in Study No. 1, the fast and ascending scales against long and descending scales in Study No. 2, the increasing number of pitches per phrase against the decreasing number of pitches per phrase in the first cycle of Study No. 3.

The three studies may be programmed as a set because there is a connection between them. Study No.1 and No.2 start on ‘B.’ Study No. 1 ends on an augmented fourth ‘B3-F4,’ foreshadowing the beginning of Study No. 2 where the locrian scale starts on the middle register ‘B3.’ Study No. 2 uses fast ascending arpeggios as ornaments in section II, which previews the characteristic figurations of Study No. 3.
CHAPTER 5
CONCLUSION

The compositions for two pianos by Mao-Shuen Chen, Gordon Shi-Wen Chin, Pey-Wen Yen and Ching-Wen Chao, demonstrate their diverse approaches to the use of Western techniques to express personal values that are derived from Asian culture.

*Ballade* creates a soundscape of Chen’s personal observations of the street sounds that are often found in front of a temple in the early society of Taiwan. The motives in *Ballade*—E-A-Mi-Sua (oyster thin noodles), Man-To (steamed buns), Rolling Wheels, the Taoist priest reciting the spells, Two Ladies, Fortuneteller, the Child, the hammering of shoemaker and scissor sharpeners, are all constructed on pentatonic scales. In addition, the motives are directly associated with the scenes and the languages that are commonly used in Taiwan (*Hoklo* and Mandarin). Therefore, even though Chen did not quote a specific Taiwanese folk tune, which is the case in some compositions by other Taiwanese composers, *Ballade* speaks in a vivid and passionate way to the audience.81

While one cannot find a pentatonic scale or any obvious Eastern musical element in Chin’s *Quiet Joy*, one cannot deny that Chin has created a captivating soundscape of the mountain scenery in Taiwan that arouses the listeners’ imagination and the feeling of the beautiful island. Chin’s *Quiet Joy* is a reflection on the trips that Chin’s family took to Da-Tun Mountain when Chin’s two children were young. Chin’s strong affection for his family and his homeland are encapsulated in the two contrasting materials placed in the very beginning of the work. Chin incorporates Western techniques such as transposition, fragmentation, transformation, tertian harmonies, and imitative writing into his original compositional methods. These original methods are “divergence” which manipulates the two contrasting materials and his “principle of accumulation” which creates the structural design. The combination of Western techniques with his original methods creates a compositional platform which allows Chin to express his profound love for his family and his homeland within a well-defined structure. The use of Western techniques combined with his original compositional methods can also be found in his other large-scale

---

81 During my interview with Chen, he mentioned that after the premiere of *Ballade*, he was very glad when an audience member came to him and said with excitement: “I could hear the vendors’ calling E-A-Mi-Sua and Man-To in your music. It is so real!”
compositions with titles that relate to Taiwan including the *Symphony No.3* ("Taiwan") (1995), *Sunrise in Taiwan* for choir and symphonic orchestra (1996) and *Formosa Seasons* for violin and string ensemble. While Chin employs a personal approach to establish the formal structure in *Quiet Joy*, Chao uses concepts that are derived from Western serial techniques to create sophisticated structural designs in *Studies No.1-3*. This is in direct contrast to Yen’s avoidance of a well-constructed pre-compositional plan in *Piano Duet*. In his structural plan for *Studies No.1-3*, Chao uses serial techniques, chance procedures, letter-note associations from the West, heterophonic textures and ornaments related to Chinese *Beiguan* music and the number “seven” which symbolizes Chinese funeral customs. While the use of a pentatonic scale may not be ostensive in *Study No. 3* as in Chen’s *Ballade*, the set (0246) that is derived from a pentatonic scale plays an important role in the process of note deduction in *Study No. 3*. The combination of these Western and Asian influences creates a sonic world that is not only enchanting but transcendental and comforting.

Yen’s *Piano Duet* is unusual in two main aspects: her compositional approach and the doubling of musical materials on the two pianos. These two characteristics have made *Piano Duet* a very distinctive composition in the repertoire of Taiwanese two-piano music. *Piano Duet* was composed during Yen’s search for mental freedom, a state that is related to *Nirvana* in the religion Buddhism. *Nirvana* is said to be “the supreme state free from suffering and individual existence,” or “a state in which there is no suffering or desire, and no sense of self as well as a state of perfect happiness.” Buddhists call it “Enlightenment” and it is the ultimate goal of all Buddhists. Yen’s abandonment of conscious control in the development of the materials in the three movements seems to reflect this philosophy. Once Yen has found the color she wants from the piano, she liberates her conscious mind and follows her intuition in the development of the materials. This procedure stands in direct contrast to Yen’s normal use of detailed plans for her compositions. In addition, Yen requires the two pianos to play the same or similar materials in order to create an uncertainty for the audience and the performers with regard to the origin of the sound, which seems to be a manifestation of “me and not me.” This state can only be experienced and

---


understood when one achieves Nirvana. The incorporation of Buddhism philosophy can also be found in Yen’s other compositions (e.g. *Ballade III* (2009) and *Huhu* (2005) for piano solo).

Using Eastern origins for inspiration in the background and Western compositional techniques in the foreground, the four Taiwanese composers of this study have formed their own individual voice that possess an international breadth enhanced by cultural identification. This research has changed the way I interpret external Eastern musical elements in an Asian composer’s music. I have realized that using Eastern musical elements may manifest traits of an ethnic culture, but it does not necessarily distinguish a particular culture from others, “make the essence of a particular culture stand out,”\(^84\) or even make a composition more valuable. I have come to agree with what Chin states in his book, “The value of a composition relies on how a composer integrates musical resources that come from various cultures.”\(^85\)

Each of the four composers’ selection and synthesis of musical materials - pitch, rhythm, harmony, texture, formal structure - create a satisfying, self-assured expression of emotions for themselves and a fulfilling musical experience for the audience. I believe these four compositions represent a successful model and an inspiration for the future creation of two-piano music in Taiwan that combines Eastern and Western techniques. It is my hope that this research on the two-piano works of the four Taiwanese composers will help to advance the creation of art music in Taiwan, to expand its valuable musical assets and to help build a fertile and enduring art-music heritage for the next generation.

\(^{85}\) Ibid., 28.
BIBLIOGRAPHY


APPENDIX A

SELECTED COMPOSITIONS FOR TWO PIANOS BY TAIWANESE COMPOSERS

* indicates that the composition is included in the current study.

<table>
<thead>
<tr>
<th>Year of Composition</th>
<th>Composition for Two Pianos</th>
<th>Composer</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>Concertino(^{87})</td>
<td>Chih-Yuan Kuo (b. 1921)</td>
<td>Wen-Chih Ryan(^{88})</td>
</tr>
<tr>
<td>1973</td>
<td>Fantasy Waltz op.39 (published by Formosa Singers, 2007)(^{89})</td>
<td>Ty-Zen Hsiao (b. 1938)</td>
<td>Heng-Je Lin(^{90})</td>
</tr>
<tr>
<td>1979</td>
<td>Suites(^{91})</td>
<td>Ding-Lien Wu (b. 1950)</td>
<td>Soochow University, Taiwan</td>
</tr>
<tr>
<td>1990</td>
<td>Endless Moments(^{92})</td>
<td>Ding-Lien Wu (b. 1950)</td>
<td>See above</td>
</tr>
<tr>
<td>1992</td>
<td>Fantasy(^{93})</td>
<td>Jin-Tang Sheng (b. 1940)</td>
<td>Taipei National University of Arts, Taiwan</td>
</tr>
<tr>
<td>1995</td>
<td>Painting of Northern Taiwan</td>
<td>Wen-Tze Lu (b. 1962)</td>
<td>Chinese Culture University, Taiwan</td>
</tr>
<tr>
<td></td>
<td>The Legend of the Ten Suns(^{94})</td>
<td>Mei-Chun Sally Chen (b. 1968)</td>
<td>Tunghai University, Taiwan</td>
</tr>
</tbody>
</table>

(cont.)

---

\(^{86}\) The selected compositions for two pianos by Taiwanese composers are considered as advanced performance literature by the author.

\(^{87}\) Wei-Der Huang, “Solo Piano and Chamber Music of Contemporary Taiwanese Composers,” (DMA diss., University of Maryland College Park, 2001), 50-52. According to Huang’s research, the orchestra version of Concertino arranged by Kuo appeared later in the same year and was entitled Concertino for Piano and String Orchestra.

\(^{88}\) Professor Wen-Chih Ryan teaches at Providence University and is a researcher of Chih-Yuan Kuo music.


\(^{92}\) I-Ching Huang, “The Development of Piano Music in Taiwan and Piano Compositions by Taiwanese Contemporary Composers,” (M.A. thesis, National Taiwan Normal University, 1993), 58.

\(^{93}\) Ibid., 40.

\(^{94}\) Huang, “Solo Piano and Chamber Music of Contemporary Taiwanese Composers,” 44-46. The Legend of the Ten Suns was first written in an orchestral version in 1994.
<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
<th>Composer</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td><em>Recursive Schema</em></td>
<td>Ching-Yu Hsiao (b. 1966)</td>
<td>National Taiwan Normal University</td>
</tr>
<tr>
<td>1997</td>
<td><em>Journey to the West</em></td>
<td>Mei-Fang Lin (b. 1973)</td>
<td>Texas Tech University</td>
</tr>
<tr>
<td>1999</td>
<td><em>Quiet Joy</em></td>
<td>Gordon Shi-Wen Chin (b. 1957)</td>
<td>National Taiwan Normal University</td>
</tr>
<tr>
<td></td>
<td><em>Studies No.1-3</em></td>
<td>Ching-Wen Chao (b. 1973)</td>
<td>National Taiwan Normal University</td>
</tr>
<tr>
<td>2000</td>
<td><em>Overture: The Beautiful Island-The Homeland</em></td>
<td>Wen-Tze Lu (b. 1962)</td>
<td>See above</td>
</tr>
<tr>
<td>2001</td>
<td><em>Suite: A Sketch of Southern Taiwan</em></td>
<td>Wen-Tze Lu (b. 1962)</td>
<td>See above</td>
</tr>
<tr>
<td></td>
<td><em>Ballade</em></td>
<td>Mao-Shuen Chen (b. 1936)</td>
<td>Aletheia University, Taiwan</td>
</tr>
<tr>
<td>2005</td>
<td><em>Flower in a raining night</em></td>
<td>Ting-Yi Ma (b. 1962)</td>
<td>Soochow University, Taiwan</td>
</tr>
<tr>
<td></td>
<td><em>Spider in a Mirror</em></td>
<td>Mei-Chun Sally Chen (b. 1968)</td>
<td>Tunghai University, Taiwan</td>
</tr>
<tr>
<td></td>
<td><em>Duet</em></td>
<td>Pey-Wen Yen (b. 1966)</td>
<td>Aletheia University</td>
</tr>
</tbody>
</table>

95 Ibid., 53.
97 Ibid., 92.
98 Ibid., 115.
99 Ibid., 89.
APPENDIX B

MAJOR COMPOSITIONS FOR PIANO

Major Compositions for Piano by Mao-Shuen Chen

* indicates that the English translation of the composition is provided by the author.

Compositions for Piano Solo

1960  Piano Sonata No. 1

1962  Piano Sonata No. 2

1964  Five Songs without Words  *【鋼琴無言歌集】

1977  Piano Sonata No. 3

1980  Piano Sonatinas No. 1-3

1981  Piano Sonatinas No. 4-5

1982  Piano Sonatina No. 6

1983  Piano Sonatinas No. 7-8
      Piano Sonata No. 4

1984  Piano Sonatinas No. 9-10

1985  Piano Sonata No. 5
      Nocturnes No. 1-2

1986  Piano Sonatinas No. 11-12
Publisher: Piano Sonatina No.11 is published by Mao-Shuen Chen along with Piano Sonatina No.17 and No.21, 1992.

1987  Piano Sonatina No. 13

1988  Piano Sonatinas No. 17, No.21
Publisher: Piano Sonatina No.17 and No.21 are published by Mao-Shuen Chen along with Piano Sonatina No.11, 1992.

2002  Taros and Sweet Potatoes  ＊【芋頭與番薯】

2003  \(Fn\) square= \(H^{3/1}\) 【Fn（次方）= H^{3/1}】
Children's Games 【童玩三篇】: Hopscotch【跳格子】，Stilt Walking【踩高蹺】，Battles on Horseback【騎馬打仗】
Publisher: Children’s Games are included in the New Taiwan Music Piano Works, Vol. VII which is published by Wach School of Music, Taipei, 2002.

2005  Piano Sonata No. 6

Composition for Two Pianos

2003  Ballade

Piano Concerto

1998  Word of Honor  ＊【一言九鼎】

Major Compositions for Piano by Gordon Shi-Wen Chin

Compositions for Piano Solo

1980  The Butterfly in Love with Flowers  ＊【蝴蝶戀花】
An Autumn Day in my Homeland  ＊【故園秋日】


1989  The Field without the Fragrance of Soil  ＊【失去泥香的田野】

1992  Afterimage  ＊【殘像】

**Piano Concertos**

1991  *Piano Concert No.1* 【鋼琴協奏曲第一號】

2001  *Phantasy for Piano and Orchestra*

**Composition for Two Pianos**

1999  *Quiet Joy* 【徜徉在大屯山上】 (1999)

**Major Compositions for Piano by Pey-Wen Yen**

**Compositions for Piano Solo**

2001  *Conscious* 【豁然】
     *Jing* 【境】
     *Chinese New Year* 【新年樂】

2004  *Jue* 【譎】

2005  *Hu-Hu* 【滸滸】

2007  *Ballade I* 【蘭亭集序】

2008  *Ballade II* 【翠玉白菜】

**Composition for Four Hands, One Piano**

2003  *Piano for Four Hands*
     (1) *Qing* 【慶】
     (2) *Zhu* 【築】
     (3) *Qi* 【砌】
Composition for Two Pianos

2005  *Piano Duet*

(1) Understanding【心領神會】
(2) In Mind【若有似無】
(3) Wave【波瀾暗湧】

**Major Compositions for Piano by Ching-Wen Chao**

Composition for Piano Solo

2004  *Instant*  【瞬】

Composition for Two Pianos

1999  *Studies No.1, 2, 3*
AUTHOR’S BIOGRAPHY

Ling-Ti Huang, born in Yunlin, Taiwan, began her piano study at three with her parents and later, with the acclaimed instructor Tzong-Kai Kuo, a former student of Earl Wild. In 1997 she was accepted by National Taiwan Normal University (NTNU), where she studied piano with Yu-Chiou Chen, composition with Chin-You Lin and vocal performance with Tzuei-Yu Huang. Ling-Ti discovered a passion for contemporary music in 1999, and has been appointed to perform several composition premiers by faculties of NTNU and other professional composers ever since. She appeared in concerts in Taipei City Mayor’s Hall and Taipei National Recital Hall.

In 2001, she continued her master’s degree at National Taiwan Normal University and studied under the renowned pianist, Li-Chun Lai. In the same year, she was the recipient of the Schoenberg Prize at the summer academy in Austria. In 2002, she won the second prize for piano performance in the National Musical Competition for Talented Youth. Throughout her education in Taiwan, she had the privilege of working with the distinguished pianists Oxana Yablonskaya, Robert Shannon, Pi-Hsien Chen, Hung-Kuan Chen, Alan Chow, Andre Diev, Julian Martin, David Lively, Michelle Campanella and Peter Toperzer.

In 2004, Ling-Ti received the prestigious Langford Fellowship and began her doctoral studies at the University of Illinois at Urbana-Champaign (UIUC), where she studied piano with Ian Hobson, the winner of 1981 Leeds International Piano Competition. In addition to piano performance, Ling-Ti studied piano pedagogy with Reid Alexander, organ with Dana Robinson, harpsichord with Charlotte Mattax, and chamber music with members of the Pacifica Quartet, winner of 2009 Grammy Award for Best Chamber Music Performance. In 2005, Ling-Ti was appointed as an accompaniment for the School of Music at UIUC and has been collaborating with singers and instrumentalists ever since. In 2006, she was awarded the Creative and Performing Arts Fellowship offered by the School of Music at UIUC for her outstanding academic achievements.

Ling-Ti joined the UIUC New Music Ensemble in 2007 and performed in numerous concerts at the Krannert Center for the Performing Arts. In 2007, she was invited to perform Machine Awakes, Steve Taylor’s newly commissioned work, with New York Metropolitan Soprano Caroline Worra at the Illinois
Art Council. In 2008, the American Composer Zack Browning invited her to record his dynamic composition, *Blockhouse*. In the same year, she won the 2008 Award for Distinguished People of Arts in Taiwan.

After completing her studies at UIUC, Ling-Ti plans to return to Taiwan and continues her devotion to collaborative piano, piano instruction, the research and promotion of classical and contemporary music.