

EXPLORATION OF EIGHT-MALLET KEYBOARD PERCUSSION TECHNIQUES

A Thesis

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment

of the Requirements for the Degree

Master of Arts

Tyler James Kulp

Indiana University of Pennsylvania

May 2014

© 2014 Tyler James Kulp

All Rights Reserved

Indiana University of Pennsylvania  
School of Graduate Studies and Research  
Department of Music

We hereby approve the thesis of

Tyler James Kulp

Candidate for the degree of Master of Arts

---

---

Michael Kingan, D.M.A.  
Professor of Music, Advisor

---

---

Carl Rahkonen, Ph.D.  
Music Librarian/Professor of Music

---

---

Matthew Baumer, Ph.D.  
Associate Professor of Music

ACCEPTED

---

Timothy P. Mack, Ph.D.  
Dean  
School of Graduate Studies and Research

---

Title: Exploration of Eight-Mallet Keyboard Percussion Techniques

Author: Tyler James Kulp

Thesis Chair: Dr. Michael Kingan

Thesis Committee Members: Dr. Carl Rahkonen  
Dr. Matthew Baumer

This document aims to examine in detail eight-mallet techniques used in keyboard percussion performance. It includes a brief history of extended multiple mallet techniques, and studies current eight-mallet grips, their formation, and use in performance. Through direct and email interviews, this thesis contains the thoughts of the keyboard percussionists who employ these grips and includes an analysis of two works that necessitate performance with eight mallets. Finally, it investigates tonal possibilities available with eight mallets and explores using more than eight mallets in performance.

## ACKNOWLEDGMENTS

This thesis represents a significant milestone in my musical performance and scholarly career. Such a document could not exist without the support and guidance from a number of people.

The following faculty have influenced and guided me through this process and my time at IUP significantly: Dr. Michael Kingan, Dr. Carl Rahkonen, Dr. Jack Stamp, and Dr. Matthew Baumer.

My entire family, especially my mom, dad, wife, and daughter, who have been thoroughly supportive throughout this process.

Thank you to Dr. Robert Paterson, Mr. Kai Stensgaard, and Dr. Frank Kumor for the help you provided as I cultivated performing with more than four mallets.

Thank you to Ludwig Albert, Fiona Pui-yee Foo, and Jane Boxall for your responses to my questions. Also, thank you to Hans Beurskens, publisher of *Marimba Moods II*, for permission to reproduce score fragments in this thesis.

Finally, to you the reader, thank you for your interest in my work, for without you these are just words on a page.

## TABLE OF CONTENTS

CHAPTER	Page
1	<b>HISTORY OF EXTENDED MULTIPLE MALLET TECHNIQUES</b> ..... 1  Introduction.....1 Early Artists .....2 Marimba Artists .....6 Vibraphone Artists .....9 Texts and Media.....11
2	<b>EIGHT-MALLET ARTISTS AND THE GRIPS THEY EMPLOY</b> .....16  Ludwig Albert.....16 Jane Boxall.....18 Fiona Pui-yee Foo .....21 Tyler Kulp.....21
3	<b>EIGHT-MALLET CONSIDERATIONS</b> .....31  Pedagogy.....31 Mallet Selection .....35 Musical Possibilities .....41 Technique.....42
4	<i>MARIMBA MOODS II</i> .....44  Background .....44 Analysis.....45
5	<i>PASSING</i> .....61  Background .....61 Analysis.....63
6	<b>CONCLUSION AND RELEVANCE</b> .....75
	<b>BIBLIOGRAPHY</b> .....78
<b>APPENDICES</b>	
	Appendix A – <i>Passing</i> Score .....81 Appendix B – Lecture Recital Program.....86

## List of Tables

Table		Page
1	<i>Marimba Moods II</i> Form .....	45
2	<i>Marimba Moods II</i> Meter.....	52
3	<i>Marimba Moods II</i> Tempo.....	54
4	Playable and Not-Playable Eight-Mallet Mixed Chords .....	62
5	<i>Passing</i> Form .....	63

## List of Figures

Figure		Page
1.1	Eight-Mallet Numbering System .....	2
1.2	Clair O. Musser Marimba-Celeste .....	4
1.3	Linda Pimentel Extended Multiple Mallet Grip .....	8
2.1	Albert Eight-Mallet Grip Palm Facing Down.....	17
2.2	Albert Eight-Mallet Grip Palm Facing Up.....	18
2.3	Boxall Back Side of Grip .....	20
2.4	Boxall Front Side of Grip .....	20
2.5	Burton Four-Mallet Grip.....	22
2.6	Burton Six-Mallet Grip Adaptation .....	23
2.7	Kulp Eight-Mallet Grip Right Hand .....	24
2.8	Kulp Eight-Mallet Grip Left Hand .....	24
2.9	Stevens Four-Mallet Grip .....	25
2.10	Stevens Six-Mallet Grip Adaptation.....	25
2.11	Kulp Eight-Mallet Stevens Adaptation Grip Right Hand.....	26
2.12	Kulp Eight-Mallet Stevens Adaptation Grip Left Hand .....	26
2.13	Kulp Eight-Mallet Stevens Adaptation Grip with Pinky Right Hand.....	27
2.14	Kulp Eight-Mallet Stevens Adaptation Grip with Pinky Left Hand.....	27
2.15	Kulp Twelve-Mallet Burton Adaptation Grip.....	28
2.16	Kulp Twelve-Mallet Stevens Adaptation Grip .....	29
3.1	Encore Nancy Zeltsman Graduated Set .....	36
3.2	Mallet Graduation, Two Pairs of Mallets .....	37



Figure	Page
3.3 Mallet Graduation, Three Different Types of Mallets .....	37
3.4 Stensgaard Six-Mallet Graduation .....	38
3.5 Six-Mallet Graduation, Right Hand Different Types of Mallets .....	39
3.6 Eight-Mallet Graduation, Four Identical Mallets in Each Hand .....	39
3.7 Eight-Mallet Graduation, Inner Mallets Different than Outside Mallets .....	40
4.1 Theme 1 Measures 7-10 .....	46
4.2 Theme 1 Variation 1 Excerpt Measures 30-32 .....	46
4.3 Theme 1 Variation 2 Excerpt Measures 46-48 .....	47
4.4 Theme 1 Variation 3 Excerpt Measures 89-92 .....	47
4.5 Theme 1 Variation 4 Excerpt Measures 108-112 .....	48
4.6 Theme 1 Variation 5 Excerpt Measures 128-131 .....	48
4.7 Theme 2 Excerpt Measures 15-22 .....	49
4.8 Theme 3 Excerpt Measures 55-58 .....	51
4.9 Theme 4 Excerpt Measures 68-70 .....	51
4.10 Resonator Blow Measure 1 .....	58
4.11 Striking Mallets and Stomping Feet Measures 74-75 .....	59
4.12 Mallet Shafts Striking Bars Measures 82-84 .....	59
5.1 Introduction Motive Measures 1-2 .....	64
5.2 Start of Theme 1 Measure 16 .....	64
5.3 Theme 2 Motive 1 Measure 31 .....	65
5.4 Theme 2 Motive 2 Measure 39 .....	65

Figure	Page
5.5 Theme 3 Excerpt Measures 49-50 .....	66
5.6 Theme 4 Excerpt Measures 68-70 .....	67
5.7 Eight-Note Rolls Spanning Several Octaves Measures 56 and 57 .....	69
5.8 Two+ Octave Glissando Measures 61 and 62 .....	69
5.9 First Appearance of Sixteenth Notes in Eight-mallet Composition.....	70
5.10 First Appearance of Triplets in Eight-mallet Composition Measure 82 .....	70
5.11 10 Pitches Notated .....	72
5.12 10 Pitches Struck on Marimba.....	72
5.13 Inner and Outer Mallets in Right Hand Used Alternating Measure 47.....	73
5.14 First Appearance of One-Hand Roll in Eight-Mallet Composition Measure 2 .....	73

## CHAPTER 1

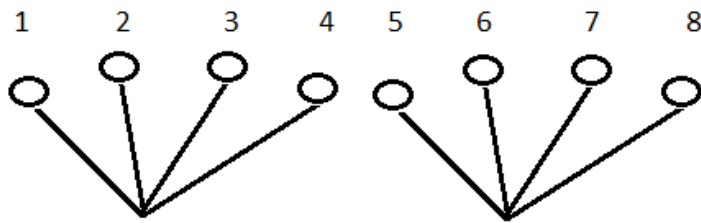
### HISTORY OF EXTENDED MULTIPLE MALLET TECHNIQUES

#### INTRODUCTION

Throughout the history of performed music, innovation has improved upon current techniques by refining them. Innovation has also created new techniques expanding the realm of possibilities. Keyboard percussion (xylophone, marimba, and vibraphone) has witnessed numerous innovations including the continuing evolution of the number of mallets a performer uses in a performance. The term “extended multiple mallet techniques” refers to adding extra mallets to four-mallet grips in performance. Extended multiple mallet techniques possess a rich history that is continually evolving as a growing number of percussionists adopt these techniques. One emerging technique, the use of eight mallets in performance, has grown tremendously in the past two years as artists have explored the characteristics, music, and possibilities of the technique. To date, no such document exists which explores these aspects of eight-mallet keyboard percussion performance.

Throughout this document, the mallets in each hand will be referred to by their location in the hand as well as a number associated with them, as seen in figure 1.1. The number associated with each mallet will change depending on the number of mallets held. Numbering of the mallets will always begin with the farthest left mallet in the left hand labeled number 1. The number assigned to remaining mallets held will increase by one from left to right. The last mallet numbered will also represent the number of mallets held in both hands combined.

Figure 1.1. Eight-Mallet Numbering System.<sup>1</sup>



## EARLY ARTISTS

In the early to mid-Twentieth Century, four notable performers experimented with and enhanced the use of extended multiple mallet techniques. Virtuosi such as George Hamilton Green, Clair O. Musser, Vida Chenoweth, and Keiko Abe each played a vital role in the enhancement and proliferation of these techniques.

George Hamilton Green (1893 – 1970) was one of the most prolific xylophone performers of the early Twentieth Century. His influence continues to this day as his “Instruction Course for Xylophone” is a standard text for percussionists. Green toured extensively as a xylophone soloist performing to large crowds. His success stemmed from his flawless playing and captivating showmanship. In addition to helping to standardize xylophone technique, Green also expanded the technical possibilities of the xylophone.

---

1. Illustration by author.

Several articles detail his attempts at using extended multiple mallet techniques. One account states, “Audiences marveled at his practice of picking up extra mallets to fill out the harmonies, and occasionally he would dazzle them with stunts of six and eight mallets.”<sup>2</sup>

It is important to note that these experimentations using more than four mallets happened early in Green’s career, and the use of the extra mallets was typically for short periods of time to impress the audience. As such, his use of extra mallets can be considered a “stunt” rather than a long-term technique. As his career progressed and he became a more serious musician, he performed less for vaudeville audiences and the record of his experimentation with extended multiple mallet techniques ceases. Despite some of the non-musical reasons for his experimentation with extra mallets, his use of these techniques helped lay the groundwork for future study in this area.

In contrast to Green, Clair O. Musser’s (1901–1998) experimentation with extended multiple mallet techniques might have originated out of necessity due to the instrument he created. In 1926, he created the Marimba-Celeste, which combined a five-octave xylophone-marimba with a two-octave vibraharp. In figure 1.2, it appears Musser is holding three mallets in his right hand using a variation of his “Musser” grip, the first non-crossed four-mallet grip he developed.

---

2. Barry Bidwell and Scott Lyons, “A Salute to George Hamilton Green, Xylophone Genius,” *Percussive Notes* 25, no. 5 (Summer 1987): 55.

Figure 1.2. Clair O. Musser Marimba-Celeste.<sup>3</sup>



This variation of his grip includes the additional mallet held in a non-crossed or independent fashion. The additional mallet is inserted between the ring and pinky finger. If and how Musser manipulated this extra mallet in performance is not known as reports are not available. However, Musser takes a strong stance against using six mallets in performance stating, “No serious attention should be paid to the person who boasts that he can hold six mallets, as this style of playing is used for stage showmanship and is positively impractical musically as well as physically.”<sup>4</sup> Since the time that Musser made this statement history has proved this notion otherwise through hundreds of performances of six-mallet compositions by world-renowned artists. History has also proven that

---

3. Clair O Musser, “The Musser Scrapbook,” *Percussive Notes* 37, no. 2 (April 1999): 14.

4 Ibid, 13.

whatever his reasons, the mere fact that such a prolific composer and performer as Musser experimented with performing with more than two mallets in one hand is significant. Also significant are Musser's surviving mallet works that are performed to this day. Many of these works (Etude in B Major Op.6, No.9, Etude in C Major, Op.6, No.10, and Etude in Ab, Op.6, No. 2) are performed on the keyboard instruments that bear his name.

Vida Chenoweth's (b. 1929) influence on extended multiple mallet techniques began in the 1960s. One of her performances is documented in the April 1964 issue of *Percussionist*. On January 14, 1964, she performed her husband Robert's, *Etude for Six Mallets* in a performance for the Enid Concert Association of Enid, OK, her hometown. The review in *Percussionist* quotes a section of the program notes: "Robert Chenoweth's *Etude* is primarily a technical challenge in its heretofore unheard of six mallet scoring. (Six mallets have never before been attempted by any marimbist in either classical or entertainment performances.)" As mentioned prior, this information conflicts with reports about George Hamilton Green's exploits with using six mallets. However, the *Etude for Six Mallets* is important as the first composition specifically scored for six mallets and performed in the United States. In Asia, performances of six-mallet compositions by Keiko Abe were happening in the early 1960s, though news of such performances had not made their way to the United States at the time.

Keiko Abe's (b. 1937) influence on extended multiple mallet techniques is well documented through her performances, compositions, and teaching. Most notably, in 1968, Akira Yuyama composed *Divertimento for Marimba and Alto Saxophone* for Abe to perform in recital in Tokyo, Japan. In this work, the composer requires the player to

use six mallets for thirty measures. The rest of the piece is performed with four mallets. Yayuma understood the difficulty of this technique and kept a consistent hand position and chord structure throughout most of the piece.<sup>5</sup>

Abe's six-mallet technique is based on the traditional grip, where the two mallets are crossed in the back. The mallets cross inside the palm with the outside mallet underneath the inside mallet when the palm is facing down. The thumb and first finger are placed between the two mallets. They are used to assist in playing intervals of increased size by spreading the mallets apart. The third and fourth fingers are used to hold the interval in place. With the aid of the thumb, they are used to decrease intervals by pushing the mallets together.

Abe's four and six-mallet works have been performed around the world. Her prominent six-mallet works include *Wind Across Mountains* (1992), *Itsuki Fantasy* (1993), and *Prism Rhapsody* (1995). The impact of her compositions and performances have been profound for over fifty years and helped establish the marimba as a solo instrument.

## MARIMBA ARTISTS

Since the 1960s, several dozen marimba artists from around the world have used between five and eight mallets in composition and performance. The amount of independence required by the mallets, the grips used, and the scoring of the extra mallets have differed greatly. These variations in technique and use have greatly expanded the musical possibilities of marimba performance.

---

5. Note by composer from CD of *Keiko Abe Marimba Selections II*, Denon 30 CO-1728, Nippon Columbia Co., 1987.



In the United States, Robert Paterson (b. 1970) and Evelyn Glennie (b. 1965) both perform using a variation of the Burton grip.<sup>6</sup> Patterson has composed several solo six-mallet marimba works as well as many duets with other musical instruments. He performed the first all six-mallet recital at the Eastman School of Music in 1993 and released the first all-six mallet CD in 2012. Glennie premiered Thea Musgrave's marimba concerto *Through a Japanese Landscape* in 1994. Her mastery of performing with six mallets has been captured in several reviews including one stating, "She has technical command, whether playing with four mallets or six, timbral imagination, and theatrical flair."<sup>7</sup>

Dean Gronemeier (b. 1963) is director of percussion at the University of Nevada, Las Vegas. His Gronemeier grip and its independence have influenced numerous publications and compositions, including his own. He describes the grip saying "The basis is a non-crossed Musser Grip with a Burton cross-grip superimposed where the inside mallet would normally be on the four-mallet grip."<sup>8</sup> Several of his former students have written about using extended multiple mallet techniques as well as commissioned and performed works using these techniques. These publications and performances are a direct result of learning the Gronemeier grip from him. These students include Dr. Timothy Jones, Dr. Markus Reddick, and Mr. A.J. Merlino.

---

6. Cross grip pioneered by jazz vibraphonist Gary Burton featuring the outer mallet crossed over the inner mallet with the palm down. This is the reverse of the aforementioned Traditional grip which features the inner mallet crossed over the outer mallet with the palm down.

7. Richard Dyer, "Glennie's triumph has no limits", *Boston Globe*, March 1, 1996.

8. Dean Gronemeier, "Six-Mallet Independence: A New Twist on an Old Idea", *Percussive Notes* 34, no. 6 (Dec 1996): 41.

Rebecca Kite (b. 1951) has commissioned two works using extended multiple mallet techniques, *Jazz Suite for Marimba* (1998) and *Circe* (2000). She performs using a variation of the Musser grip.

Linda Pimentel is adept at performing with a variety of six-mallet grips and her mastery of these techniques is demonstrated through published pieces in *The Solo Marimbist Vol. II* and articles in *Percussionist* describing her techniques. She demonstrates one such grip in figure 1.3.

Figure 1.3. Linda Pimentel Extended Multiple Mallet Grip.<sup>9</sup>



In Europe, Belgian artist Ludwig Albert performs with a variation of the traditional cross grip. Albert composed *Let`s Dance* (1998), a six-mallet marimba solo, that can be heard on his CD *Marimba Paraphrases* (2000). Kai Stensgaard, a Danish percussionist, has greatly enriched extended multiple mallet repertoire through his

---

9. Linda Pimentel, "Marimba Exchange," *Percussive Notes* 18, no. 3 (Spring/Summer 1980): 66.

compositions and arrangements. He uses a variation of the Stevens four-mallet grip.<sup>10</sup> Stensgaard's *Concierto Mexicana* (2006) was the first six-mallet concerto composed. However, six-mallets are not necessary for performance of all movements of the piece.

Asian Artists like Pei-Ching Wu and Yurika Kimura have demonstrated six mallet use in performance. Pei-Ching Wu is a founding member of the Ju Percussion Group, the first percussion ensemble established in Taiwan. Her dissertation focuses on her six-mallet grip, the Wu grip, based on the Burton grip and two six-mallet compositions, *Flame Dance* and *Water Fairies* by Wan-Jen Huang. "Kimura's uncanny ability to play the marimba using four, five, and six mallets simultaneously has allowed her to create transcriptions and arrangements of 1920s period accompaniments originally performed on a piano or by small orchestras."<sup>11</sup>

Joseph Porter, a Canadian marimbist, performed as featured soloist in the world premiere of the orchestra version of Stensgaard's *Concierto Mexicana* (2006). Porter has also composed the first all six-mallet concerto, *Concerto for Six Mallets and Strings* (2012). His six-mallet works for marimba include *Tango the Cat* (2011) and *Decisions* (2012).

## VIBRAPHONE ARTISTS

The vibraphone has a smaller range than the marimba and as such the number of bars that can be used in performance is fewer. However, the tonal possibilities available on the vibraphone with extra mallets are the same as those on the marimba but just on a

---

10. Cantilevered grip pioneered by marimbist Leigh Howard Stevens. Extensive information on this grip is found in his method book, *Method for Marimba*. Leigh Howard Stevens, *Method of Movement*, 2nd ed. Elberon, New Jersey: Keyboard Percussion, 1990.

11. Marimba Productions Inc., "Yurika Kimura", <http://www.mostlymarimba.com/composers/composers-k-o/959-yurika-kimura.html> (accessed December 3, 2013).

smaller scale. Exploration of extended multiple mallet techniques has occurred in vibraphone composition and performance as a result of a need for richer sounding chords for accompanying soloists, as well as fuller sounding chords in solo playing. Several notable artists have explored performing with more than four mallets including Wesley Bulla, Jean-Claude Forestier, Bill Molenhof, Ney Rosauero, Ed Saindon, and Karol Szymanowski.<sup>12</sup>

Wesley Bulla writes extensively on his use of extended mallet techniques in his 1992 thesis, “The Development, Adaption, and Educational Applications of Expanded, Five- and Six-Mallet, Solo Vibraharp Techniques” as well as a two-part series in *Percussive Notes* in 1991. His study in extended multiple mallet techniques developed while learning four-mallet arrangements of certain Debussy *Preludes*. In order to more fully emulate the original, he realized that sometimes five notes were necessary.

Jean-Claude Forestier’s six-mallet technique is well documented through diagrams, text, and photographs in *The New Lionel Hampton Vibraphone Method* published in 1981. His grip is based on the cross grip and is shown in standalone photographs as well as illustrations showing numerous chord voicings.

World renowned vibraphone artist, Bill Molenhof experimented with five and six mallets for a number of years during his early career in the 1970s. His technique was based on the Burton cross grip.<sup>13</sup>

---

12. Despite sharing the same name, he is not the famous Polish pianist and composer Karol Szymanowski (1882-1937).

13. Timothy Andrew Jones, “A Survey of Artists and Literature Employing Extended Multiple Mallets in Keyboard Percussion; Its Evolution, Resulting Techniques and Pedagogical Guide”, (DMA diss, University of Nevada, Las Vegas, 2003): 25.

Ney Rosauro, a Brazilian percussionist who has completed studies in the United States, is well known for his work featuring five mallets, *Bem Vindo* (1988). He first performed with six mallets in 1985 recording *Le Polichinelle*, a famous piano work by Heitor Villa-Lobos that is adapted by many South American marimbists.

In the mid- to late 1970s, Ed Saindon explored the comping possibilities available as a result of using five and six mallets. Saindon's performance included up to three keyboards played simultaneously (xylophone, vibraphone, and marimba) to produce the textural qualities and sounds he was hearing while 'comping' and soloing.<sup>14</sup>

Karol Szymanowski's six-mallet performing has extended possibilities as a result of the bass vibe he originated. This vibraphone's range extends to the lowest octave of a five-octave marimba. He has performed with six mallets since 1979 and does so regardless of the number of mallets needed in performance. On occasion, he will perform with a mallet with an adjustable sleeve. This allows the performer to reduce or extend the length of the mallet to assist in performing difficult chords with one hand. This mallet is held between the other two mallets using the traditional grip. For example, a chord voiced Eb, G, Bb, may be performed with one hand as a result of reducing the size of the middle mallet.<sup>15</sup>

## TEXTS AND MEDIA

Since performing with more than four mallets is an advanced technique, guidance is needed to ensure it is done properly. Such guidance can be found in a variety of forms including books, articles, CDs, an iOS application, and a DVD.

---

14. Ibid, 27.

15. Ibid.

Several instruction books in several different languages have been released regarding six-mallet keyboard performance. Mark Andres Giesecke and Wessela Kostowa's *6-Mallet-Compendium* (1995) is a German text which covers both vibraphone and marimba six-mallet technique. Kai Stensgaard's *The Six Mallet Grip* (2009) features exercises and illustrations regarding his grip and technique. *The New Vibraphone Method* (1981) by Lionel Hampton and Jean-Claude Forestier demonstrates Forestier's six-mallet grip through illustrations. It includes chord voicings and stickings as well as six-mallet musical examples. Karol Szymanowski's *The Six-Mallet Technique for the Vibraphone. Pt. 1* (2007) is available in Polish and English and features two distinct sections: Playing Chords and Playing Melody. Zeferino Nandayapa's *Metodo Para Marimba* (1998) is a Spanish text which describes the Mexican style of marimba performance for two, four and six mallets.

Articles regarding extended multiple mallet techniques have been published for over five decades and continue to be published. In Wesley Bulla's "A Study in Expanded, Five- and Six-Mallet Solo Vibraharp Techniques Part 1 and 2" (1991), he introduces expanded mallet techniques discussing grips, technical observations, and some musical applications of these grips. In "Six-Mallet Independence: A New Twist on an Old Idea" (1996), Dean Gronemeier introduces his six-mallet grip through illustrations and a detailed though brief explanation. It discusses all hand positions of his grip and the manual push and pull. Rebecca Kite's "Six Mallet Writing for Marimba" (2008) describes her six-mallet grip through descriptions, pictures, and musical examples. Linda Lorren Pimental has published several items including "Multiple Mallet Marimba

Techniques" in *Percussionist*, fall 1976, and two pieces in *The Solo Marimbist – Music Arranged and Composed for the Marimba Volume II* (1976).

Three dissertations and one thesis have been written regarding the subject of extended multiple mallet techniques. These include Timothy Andrew Jones' "A Survey of Artists and Literature Employing Extended Multiple Mallets in Keyboard Percussion; Its Evolution, Resulting Techniques and Pedagogical Guide" (2003), Marcus Reddick's "A Pedagogical Approach to Six-Mallet Independence for Marimba" (2004), Pie-Ching Wu's "Extended Multiple Mallet Performance in Keyboard Percussion Through the Study of Performing Techniques of Flame Dance and Water Fairies by Wan-Jen-Huang" (2006), and Joseph Porter's "A New Six-mallet Marimba Technique and its Pedagogical Approach" (2013).

There are several groundbreaking performance CDs that have been released containing tracks that feature performers employing extended multiple mallet techniques. Ludwig Albert's *Marimba Paraphrases*, released in 2000, features the first recording of an eight-mallet work, Albert's own *Marimba Moods*. In 2012, the first all six-mallet CD, *Six-Mallet Marimba*, was released by Robert Paterson. Also in 2012, Jane Boxall's *Zero to Eight Mallets* was released. Featured among its tracks are eight distinct tracks with each performed with a different number of mallets in order from zero to eight.

Kai Stensgaard's book, "The Six Mallet Grip" (2009), was adapted into an interactive iOS application, available for iPhone and iPad in 2011. The instructional application contains over 1,200 exercises, music score examples, instructional videos, photographs of the grip, performance videos, and a repertoire reference of compositions for six mallets. Text is available in English and Spanish.

Most recently in August 2013, the first DVD concerning six-mallet technique, “Six Mallet Technique Diversified: A Comprehensive Book and DVD to Learn Six-Mallet Marimba Technique” was authored by Joseph Porter. It features step-by-step instructions for learning and performing with his grip based on the Burton four-mallet grip. Porter names the different mallet positions, much in the same way Dean Gronemeier has with his six-mallet grip. Porter’s thesis “A New Six-Mallet Marimba Technique and its Pedagogical Approach” serves as a written representation of the DVD.

In his dissertation, Dr. Timothy Jones compiled an extensive repertoire guide of works utilizing extended multiple mallet techniques.<sup>16</sup> Jones states, “The literature contained in this chapter is, although extensive, somewhat incomplete. Many jazz pieces that may be performed with extended mallet techniques are not included due to their improvised nature. It is also impossible to locate every single work from all continents and composers, especially if the work is not published; therefore, a few works may not appear in this collection. Finally, there is of course music constantly in the process of being composed which will ultimately extend this list.”

His compilation lists composers in alphabetical order by last name. Listed below each composer are their compositions as well as valuable information including instrumentation, duration, publisher, date composed, and comments. Unfortunately, each of these components is not listed for each piece.

This list represents the first and only compilation of works using extended multiple mallet techniques. The information contained within this list is a very valuable resource to six-mallet keyboard percussionists, composers, and researchers. It has been replicated

---

16. Ibid, 51-83.



in Kai Stensgaard's book, "The Six Mallet Grip". This list has been updated since, most recently in January 2014, by Kai Stensgaard at the website [List of works for 6 mallets](http://eng.marimba.dk/list_of_6_mallets.html).<sup>17</sup> This site also includes three eight-mallet as well as several five-mallet works. Currently, it lists over one hundred works by over fifty composers.

---

17. Kai Stensgaard, "List of works for 6 Mallets", Kai Stensgaard, Last Modified January 2014, [http://eng.marimba.dk/list\\_of\\_6\\_mallets.html](http://eng.marimba.dk/list_of_6_mallets.html) (accessed February 23, 2014).

## CHAPTER 2

### EIGHT-MALLET ARTISTS AND THE GRIPS THEY EMPLOY

Throughout history, keyboard percussionists have experimented with the idea of performing with eight mallets. As noted in Chapter 1, George Hamilton Green used eight mallets in performance for short periods of time to dazzle audiences. In order to accomplish this feat, a level of refinement and experimentation on Green's part would have been required. However, Green's experimentations with eight mallets did not constitute serious exploration and descriptions or illustrations of his techniques and grips are unavailable.

In terms of serious exploration, four keyboard percussionists have performed with eight mallets. Each has created and refined their own grips as well as documented their explorations through media. These explorations assist in proving the viability of eight-mallet performance as well as furthering it. Information about these four artists and their contributions to eight-mallet technique and performance is listed below.

#### LUDWIG ALBERT

Ludwig Albert's experimentation with performing with eight mallets began as a chance occurrence. Fifteen years ago he was asked by a photographer to hold eight mallets for a new Yamaha promotional poster. He composed *Marimba Moods II* after several people asked him to perform with eight mallets as a result of seeing the poster. The composition of this piece was necessary as there were no works that featured eight-mallet writing at that time. Albert has developed his eight-mallet grip since 1998. He plans to publish a full method book in March 2014. This method book will be described in a dissertation published by Albert in June 2014.

Albert's eight-mallet grip features a total cross grip based on the traditional grip. His grip is seen in figures 2.1 and 2.2. Albert states, "The outer mallet in each hand is placed between the ring and pinky finger for improvisations." This mallet is placed under the other three mallets with the palm facing down. The order of mallets from top to bottom, with the palm facing down, is 4-1-3-2 with the outer mallet representing four and the inner mallet representing one. His eight-mallet composition, *Marimba Moods II*, demonstrates this use of the outer mallet, as the piece was originally conceived as an improvisation. This mallet's role in improvisations in *Marimba Moods II* will be detailed further in Chapter 4. In addition, he has designed up to eight unique grip positions of his eight-mallet grip. Each position possesses different functions and possibilities of all mallets.

Figure 2.1. Albert Eight-Mallet Grip Palm Facing Down.<sup>18</sup>



---

18. Ludwig Albert. Email Interview, January 18, 2014.

Figure 2.2. Albert Eight-Mallet Grip Palm Facing Up.<sup>19</sup>



JANE BOXALL (b. 1980)

Jane Boxall's experience with extended multiple mallet performance began when she found the six-mallet solo *Two Scenes* by Shirley Hixson. From there she started developing an eight-mallet grip. This development led to the zero-to-eight mallet concept that became the basis for her *Zero to Eight Mallets* CD, released in 2012. The funding for this CD came from funding procured through Kickstarter.<sup>20</sup> Over a sixty-day period, March 28, 2012 – May 27 – 2012, over \$5,000 was raised and the project was fully funded. The successful response and funding procured through social avenues is a telling sign of the public's interest in extended multiple mallet keyboard percussion. The support levels for the project varied widely as the majority of backers pledged \$25, while one pledged \$750 or more with two others pledging \$350 or more.

---

19. Ibid.

20. Jane Boxall, "Marimba from 0-8 mallets: CD and vinyl album" Kickstarter, <https://www.kickstarter.com/projects/1305339778/marimba-from-0-8-mallets-cd-and-vinyl-album> (accessed January 29, 2014).

Born in the United Kingdom, Boxall completed her BA and MA at the University of York before completing her doctorate in percussion performance at the University of Illinois in 2008. She is in high demand as an educator and solo performer. Boxall also performs regularly in her duet and trio as well as large ensembles.

Boxall describes her eight mallet grip as “a combination of Burton, my regular grip, and Traditional grip. Burton between thumb and finger 2 x fingers 2-3; Traditional between 2-3 and 3-4. So the mallets in my right hand, numbering 5-6-7-8 from lowest (marimba note to highest) lie against my palm in the order 7-8-6-5. I find this allows for a more even plane between the mallets than a simple 8-7-6-5 ordering.”<sup>21</sup> In order to replicate her grip, I build a traditional grip with a mallet on either side of the middle finger. The next mallet is placed between the thumb and pointer finger with the final mallet placed on the outside of the thumb. Her eight-mallet grip can be seen in figures 2.3 and 2.4. She also has performed with five, six, and seven mallets. An example of such is found on her aforementioned CD containing tracks of her playing *Indigo Spanish Fantasy* (2009) by Charles Joseph Smith, *Tango for Six* (2012) by Lucas Guinot, *The Cutter Rag* (1909) by Elma Ney McClure, and *Marimba Moods II* (1998) by Ludwig Albert, respectively.

---

21. Jane Boxall. Email Interview, March 11, 2013.

Figure 2.3. Boxall Back Side of Grip.<sup>22</sup>



Figure 2.4. Boxall Front Side of Grip.<sup>23</sup>



---

22. “Jane Boxall – Marimba”, <http://janeboxallmarimba.blogspot.com/2011/11/minneapolis-clinic-and-concert-photos.html> (accessed January 23, 2014).

23. Ibid.

## FIONA PUI-YEE FOO

Foo's experience with eight mallets began with her playing some six-mallet pieces and then finding Ludwig Albert's *Marimba Moods II*. Her performance of this piece has garnered over 50,000 views on Youtube<sup>24</sup> as well as praise from the composer. After performing *Marimba Moods II*, she liked the full sound of eight mallets but could not find any other existing music. As a result, she composed *Shall We Dance?* in 2013. She states, "*Shall We Dance?* includes ostinato grooves, a short chorale passage, an optional improvisation/rhythmic section and a quickly developing one-handed melodic statement which requires the independence of the outer-mallets."<sup>25</sup> She performs both eight mallet pieces using a cross grip. Unlike Ludwig Albert, she does not place a mallet between the ring and pinky finger. Instead she places this mallet on the outside of the thumb. Foo indicates that the score to *Shall We Dance?* will be published in the near future.

## TYLER KULP (b. 1986)

My experience with performing with extended multiple mallet techniques began in 2006. Since that time, I have performed with multiple grips that require combinations of five, six, seven, and eight mallets. In spring 2013, I presented a recital performing four marimba pieces requiring two, four, six, and eight mallets respectively. My experimentation with several different grips led to my discovery and refinement of my

---

24. Puiyee Foo. "Marimba mood for 8-mallets." Youtube, <http://www.youtube.com/watch?v=Hy85WZrZk2M> (accessed September 17, 2013).

25. Fiona Pui-Yee Foo. Facebook Message Interview, January 17, 2014.

own eight-mallet grip. This grip is based on the Burton four-mallet grip and the Paterson six-mallet grip.

In November 2013, I received a Graduate Student Research grant from the Indiana University of Pennsylvania to study six-mallet marimba with Dr. Robert Paterson at his studio in New York City. In December 2013 and January 2014, I visited New York City four times. This study helped me refine my understanding of his six-mallet grip as well as continue to develop my eight-mallet grip based on his six-mallet grip.

The base of the Paterson grip is the Burton four-mallet grip featuring the outer mallet crossed over the inside mallet with the palm facing down. The pointer finger is placed between the two mallets as seen in figure 2.5.

Figure 2.5. Burton Four-Mallet Grip.<sup>26</sup>



---

26. Figures 2.5 – 2.16 are illustrations by the author.



The six-mallet grip based on the Burton grip features the additional mallet placed on the outside of the thumb in each hand. The mallet is placed under the other two mallets in the hand as seen in figure 2.6.

Figure 2.6. Burton Six-Mallet Grip Adaptation.



After experimenting with many eight-mallet grip possibilities, I decided upon my eight-mallet grip seen in figures 2.7 and 2.8. My grip was chosen because of its amount of control, independence, and use of the entire hand. Utilizing the entire hand assists in distributing the weight of all four mallets. My grip is based on the Paterson six-mallet grip with the additional mallet placed between the pinky and ring finger. This mallet is placed under the mallet that was added to create the six-mallet grip. The second-most inner mallet is slid up slightly so the added mallet does not cross under this mallet. If this mallet is not slid up, the mallets do not lie in an even plane when placed on the marimba. As such, a curvature to the mallets occurs and proper striking technique from the wrist is compromised.

Figure 2.7. Kulp Eight-Mallet Grip Right Hand.



Figure 2.8. Kulp Eight-Mallet Grip Left Hand.



I also experimented with an eight mallet grip based on the Stevens four-mallet grip. In the Stevens four-mallet grip the mallets are cantilevered, as seen in figure 2.9. This grip is designed to achieve a greater level of mallet independence.

Figure 2.9. Stevens Four-Mallet Grip.



The six-mallet grips based on this grip include the Gronemeier and Stensgaard grips. An example of this type of grip is seen in figure 2.10.

Figure 2.10. Stevens Six-Mallet Grip Adaptation.



Two eight-mallet grips may be formed using the six-mallet grips as a foundation. The main difference between the two eight-mallet grips is the location of the additional mallet. It may be placed between the pinky and ring finger and cross under the inside mallet as seen in figures 2.11 and 2.12.

Figure 2.11. Kulp Eight-Mallet Stevens Adaptation Grip Right Hand.



Figure 2.12. Kulp Eight-Mallet Stevens Adaptation Grip Left Hand.



It may also be placed on the outside of the thumb, outside the additional mallet added to create the six-mallet grip. This can be seen in figures 2.13 and 2.14.

Figure 2.13. Kulp Eight-Mallet Stevens Adaptation Grip with Pinky Right Hand.



Figure 2.14. Kulp Eight-Mallet Stevens Adaptation Grip with Pinky Left Hand.



Eight-mallet grips based on the Stevens four-mallet grip may offer expanded independence but lack control. The pinky finger is typically not strong enough to support the full weight of a mallet without the assistance of the mallet being crossed under other mallets in the hand. However, I plan to and encourage others to explore these grips further and refine them to determine their viability as effective and usable eight-mallet grips.

Additionally, I have experimented using more than eight mallets in performance. With my grip, I have examined using nine, ten, eleven or twelve mallets in performance. Placing an additional mallet between the middle and ring finger in one hand creates a nine-mallet grip. Adding another mallet in the same location on the other hand creates a ten-mallet grip. Another option is placing the additional mallet on the outside of the thumb as in the Boxall or Foo grip. This creates a nine- or ten-mallet grip depending if the additional mallet is placed in one or both hands. Combining these two methods in one or two hands can create an eleven- or twelve mallet grip as seen in figure 2.15.

Figure 2.15. Kulp Twelve-Mallet Burton Adaptation Grip



Using the Stevens eight-mallet grip adaptation as a base, nine, ten, eleven, and twelve mallets grips may be formed, as seen in figure 2.16. The additional mallet or mallets would be placed between the pointer and middle finger and ring and pinky finger respectively.



Figure 2.16. Kulp Twelve-Mallet Stevens Adaptation Grip.



A nine, ten, eleven, or twelve-mallet grip may also be possible with the Foo, Boxall, or Albert grip. I have not attempted to develop these grips primarily because I have not mastered their eight-mallet grip. As a result, attempting to add additional mallets to those grips may result in injury and as such would not be advantageous until I have mastered their eight-mallet grips. To my knowledge Boxall, Albert, or Foo have not attempted using more than eight mallets in performance.

While adding additional mallets to have five or six in each hand has its advantages, currently the disadvantages far outnumber the advantages. Each additional mallet that is added places additional stress to the hand to support the weight of all the mallets. In addition, the ability to change the intervals between the mallets is virtually non-existent.

The main benefit of performing with five or six mallets in each hand is the ability to perform five or six notes with each hand at one time. The necessity of this is not

currently written into any keyboard percussion piece. Transcription of music written for other instruments, especially piano, may lend itself to performing with this number of mallets.

However, once again manipulating the mallets to perform different five and six note chords with one hand will prove challenging. Performing with this number of mallets on naturals will be easier than on accidentals or mixed between accidentals and naturals. Also, performing these chords on larger keyboard percussion instruments with larger bars (marimba and vibraphone) as opposed to a xylophone or even bells will assist in easing the complications of performing these chords. Striking areas on the bars with this number of mallets currently prove to be inconsistent from mallet to mallet and as such a difference in sound quality will be noticeable between the mallets.

In addition, performing with any number of mallets between one and eight will prove difficult to perform while holding nine – twelve mallets. This is a direct result of the sheer weight of the mallets, the close proximity of the mallets in each hand, and the lack of proper technique that can be used holding that number of mallets. Independence with any of the mallets or linear playing are virtually impossible.

Nonetheless performing them in any capacity will prove challenging. Further study into these techniques will assist in determining if they are viable and useful in keyboard percussion performance.



CHAPTER 3  
EIGHT-MALLET CONSIDERATIONS  
PEDAGOGY

Just as two, four, and six-mallet grips have method books, papers, and discussions about the different ways to teach those grips, eight-mallet keyboard percussion technique should have such avenues of instruction. At this time, no such guides exist. However, given that most concepts of sound projection remain the same regardless of the number of mallets held in one hand, students should progress through standard mallet techniques before endeavoring to perform with extended multiple mallet techniques.

First, a logical and thorough, understanding of the base four mallet grip on which the eight-mallet grip is based on is necessary. Once a mastery and comfort level is achieved with the four-mallet grip, a six-mallet grip can be considered. The concept of a mastery and comfort level will be different for each performer. For a number of reasons, the process of transitioning from four to six mallets may take several months or years.

It is important to keep in mind that learning a six-mallet grip is not simply adding an additional mallet to each hand but rather learning a new grip entirely. A person must learn to navigate with three mallets in each hand which poses its own distinct set of problems, separate from playing with two mallets per hand. The extra weight of the mallets will initially be uncomfortable and negatively impact technique. Also, the responsibilities of each finger will change from their roles in the four-mallet grip. The mallet choices for playing passages may change as a result of the expanded options. In addition, adding up to two additional notes results in reading up to six notes at a time, which is customarily not done by a percussionist.

The performer should spend significant time analyzing the chosen six-mallet grip ensuring the grip in the performer's hand matches that of reputable illustrations. Once the grip is properly held in each hand, manipulating the mallets to achievable different intervals should occur. A strict adherence to proper technique should be maintained at all times. Once holding and manipulating the mallets in the hand is achievable, then playing simple block chords and developing independence on the instrument is necessary. Exercises from any of the method books on a certain six-mallet grip may be used for all six-mallet grips.

As exercises are performed with a level of proficiency then musical compositions can be attempted. As mentioned, a listing of six-mallet works is maintained by Kai Stensgaard at the website, List of works for 6 mallets.<sup>27</sup> A pedagogical guide for six-mallet works can be found in Joseph Porter's thesis.<sup>28</sup> After the performer has successfully performed several pieces and demonstrated proficiency at the chosen six-mallet grip, then the study of an eight mallet-grip may commence. It is not recommended to begin eight-mallet study before beginning six-mallet study for several reasons.

Doubling the number of mallets from one to two in each hand is less a transition than doubling from two to four mallets in each hand. As discussed with six-mallet development, weight of the additional mallets may be uncomfortable in the beginning and will affect technique until competence is achieved. Adding two mallets to each hand

---

27. Kai Stensgaard, "List of works for 6 Mallets", Kai Stensgaard, Last Modified January 2014, [http://eng.marimba.dk/list\\_of\\_6\\_mallets.html](http://eng.marimba.dk/list_of_6_mallets.html) (accessed February 23, 2014).

28. Joseph Porter, "A New Six-Mallet Marimba Technique and its Pedagogical Approach", Master of Music thesis, University of Lethbridge, 2013: 61-78.

will double the weight of the mallets in each hand. Maintaining important technique with the added weight and avoiding injury is essential. Holding and manipulating the mallets for short durations in the beginning may be necessary.

Simply holding the mallets at first and studying how each mallet interacts with the others and how the fingers manipulate each mallet will take a significant amount of time. It is important to check that when all eight mallet heads are placed on the keyboard, they all touch evenly in a level plane. Some maneuvering of the positioning of the mallets in the hand may be necessary to achieve this level plane. Four mallet chords in each hand should be performed at comfortable intervals. The standard four-mallet chord is typically a 7<sup>th</sup> chord or a triad with the root doubled at an octave. Once various four-mallet chords are achieved in each hand, the next task is to begin combining the two hands.

Playing eight-mallet chords, sustained and non-sustained, should be followed by an exploration in independence. Independence with the mallets will lead to combinations of two to eight mallets being played at once. Once the student is comfortable with these beginning steps, then practice may begin on one of the three eight-mallet compositions currently composed. They are *Marimba Moods II* (1998) by Ludwig Albert, *Passing* (2013) by Tyler Kulp, and *Shall We Dance?* (2013) by Fiona Pui-Yee Foo. The first two will be discussed in Chapters 4 and 5 respectively. The last one will not be covered in this paper as it is currently not published and a score was unavailable for study.

When considering beginning study with extended multiple mallet techniques, it is important to realize their current place in percussion performance and education. Currently, no percussion artist or composer in the world makes a living by performing or composing extended multiple mallet works. They may compose and perform them as

part of their repertoire but they are not the focal point or the entirety of their repertoire. In terms of education, six-mallet teaching is done on occasion by professors and teachers with knowledge of these grips. Such teaching is done to students who have displayed a significant mastery and understanding of two- and four-mallet grips and have shown a personal drive to explore performing with additional mallets. Teaching eight-mallet performance is currently non-existent.

Four significant reasons exist for the lack of extended multiple mallet education. These include, the advanced nature of the techniques, the number of performers and educators with knowledge of these techniques, the number of students inclined to study these techniques, and the importance of two- and four-mallet studies.

As mentioned, performing with more than four mallets is an advanced technique and requires extensive study beyond four-mallet study. Even with this extensive study, a number of factors may limit success with extended multiple mallet techniques. These include hand size and technical proficiency. The number of performers and educators with knowledge of such techniques is limited but is proportional to the number of works composed for such techniques when compared to two or four mallets. Regarding student's interest, a lack of knowledge of such techniques, a lack of available resources including teachers and media, and a priority with two-and four-mallet studies all contribute to an overall lack of students' interest in these techniques.

Finally, it is of utmost importance to mention the significance of proper study devoted to two- and four-mallet performance. Such study ensures the performer a solid foundation for mallet performance with any number of mallets. The entirety of higher education percussion curricula relating to mallets concerns two- and four-mallet studies

and this is done with good reason. Study of these techniques is accompanied by studies on other percussion instruments in order to help prepare the student to be a well-rounded percussionist. This achievement takes significant time and as such, little to no room is left for exploration into extended multiple mallet techniques. This lack of time is justified for without the proper foundation, exploration into extended multiple mallet techniques will be fraught with hardship and a lack of success.

As such, a person endeavoring to perform with eight mallets will have to possess a drive to persevere through a tremendous amount of trial and error and self-discovery. I have personally experienced such an experience with eight mallets and in my interviews with Dr. Robert Paterson, it is clear he encountered similar experiences with six mallets in the early 1990s. Despite these obstacles, the reward for the substantial amount of time and effort invested can be very enriching, as the knowledge gained and the performance and composition possibilities will be greatly expanded.

#### MALLET SELECTION

Mallet selection with any number of mallets depends on a number of factors. Weight and length as well as the shaft and mallet head material all play a role in deciding the brand and model of mallet to use. Mallet shafts are typically made of birch or rattan, while mallet heads have significantly more options. The seven most used mallet heads are made of plastic, metal, latex, wood, rubber, yarn, or cord. Two-tone mallets may also be selected if necessary. As the number of mallets used increases, the possibilities of mallet selection proportionally increase. Mallets are typically sold in pairs, which is a good place to begin.

There are three main types of mallet choices that may be used: Uniform Set, Graduated Set, and Mixed Set. Using a uniform set of eight of the same type of mallet would create a uniform sound across all eight mallets. Mallet graduation entails using mallets of graduated hardnesses on different parts of the marimba, such as softer mallets in the lower register and harder mallets in the upper register. Mallet graduation has been used by a large number of keyboard artists and results in a greater variety of timbres and sounds. In two-mallet performance, mallet graduation is not used and is impractical. However, moving to four-mallet performance, there are several different opportunities for mallet graduation. With six or eight mallets, the options for mallet graduation directly increase. Using a mixed set entails using a mixed variety of mallets not in a graduated order.

When performing with four mallets on the marimba, a performer has the option to choose one of several prepackaged set of graduated mallets, like the Encore Nancy Zeltsman Graduated Set, or by selecting their own graduated set. In the Zeltsman set seen in figure 3.1, each mallet gradually increases in hardness from a NZ6R articulate bass to a NZ4R medium to a NZ3R medium hard to a NZ2R medium harder.

Figure 3.1 Encore Nancy Zeltsman Graduated Set.<sup>29</sup>



---

29. Encore Mallets, Inc. “Nancy Zeltsman Series” <http://www.encoremallets.com/products.php?series=3> (accessed February 13, 2013).

The performer may also choose to have the two mallets in the left hand be slightly softer or less articulate than those in the right hand, thereby using two different pairs of mallets as seen in figure 3.2.

Figure 3.2. Mallet Graduation, Two Pairs of Mallets.<sup>30</sup>



A set of three different mallets within the four-mallet configuration is also widely used. One instance of this is seen in figure 3.3 where moving left to right through the performer's eyes, a bass mallet is followed by two identical inner mallets and then a soprano mallet of a greater hardness.

Figure 3.3. Mallet Graduation, Three Different Types of Mallets.



Six-mallet performance offers expanded options for mallet selection and graduation. Using six identical mallets split between the two hands will work in several cases but mallet graduation is often necessary for two reasons. First, while covering the range of the keyboard, mallets that work in the upper range might not have the same

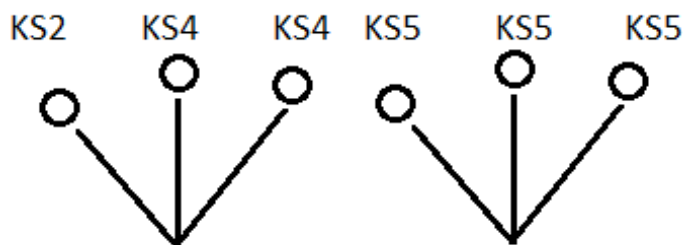
---

30. Figures 3.2 – 3.7 are illustrations by the author.

quality of sound in the lower range. Also, since four-mallet performance has now been considered the standard for a large portion of keyboard percussion performance, most performers possess two pairs of a type of mallet. Therefore transitioning to six-mallet performance, the performer would have to purchase an additional pair of mallets.

The options for six mallet graduation range from none, where all six mallets are identical, to complete graduation where all six mallets are different. The former is used extensively while the latter would prove impractical as a result of all the different types of mallets used. Finding an appropriate graduated set of six mallets may use or exceed all the hardness levels in a manufacturer's series. More commonly seen configurations include three identical mallets in the right hand with three softer identical mallets in the left hand. The performer may also choose to graduate mallets within each hand. For example, Kai Stensgaard indicates that he typically uses three different types of mallets in his six-mallet grip in most of his six-mallet performances. From left hand through right hand he uses one type of mallet, followed by two identical mallets, and then in the right hand three identical mallets, as seen in figure 3.4. They are KS2 (medium-soft), KS4 (medium-hard), and KS5 (hard), respectively.

Figure 3.4. Stensgaard Six-Mallet Graduation.



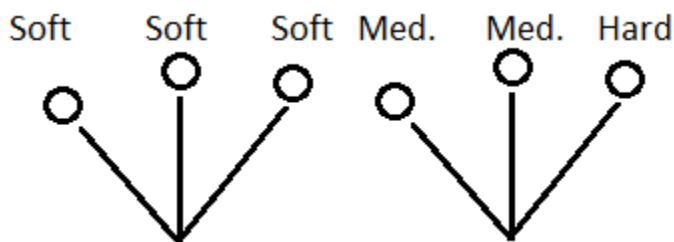
Stensgaard's mallet configuration serves his performances well as a majority of his music features a note with the lowest mallet followed by the other two mallets in the left



hand striking simultaneously. The right hand typically features independence but also plays several block chords enabling an almost uniform sound with the three mallets.

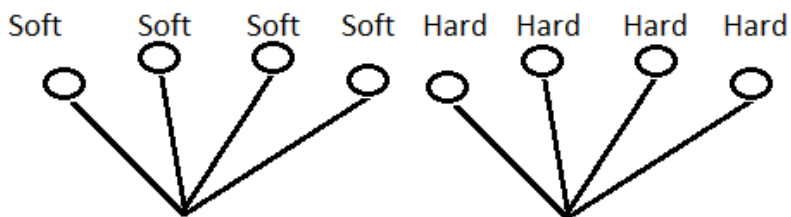
The reverse can also be used with three identical mallets in the left hand and then two identical mallets followed by a different mallet in the right hand as seen in figure 3.5. Such a configuration would be ideal for soft accompaniment in the left hand while the melody is brought out using the hard mallet in the right hand. The two medium mallets in the right hand provide a dynamic and tonal contrast to the hard mallet.

Figure 3.5. Six-Mallet Graduation, Right Hand Different Types of Mallets.



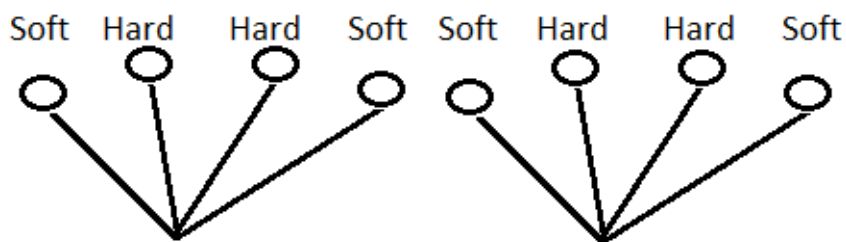
In eight-mallet performance, performing with eight identical mallets should be the ideal starting point for mallet selection. However, the majority of percussionists do not have eight identical mallets in their possession. Most percussionists have four identical mallets and therefore the starting place for mallet selection should be four identical mallets in each hand. This mallet configuration is seen in figure 3.6.

Figure 3.6. Eight-Mallet Graduation, Four Identical Mallets in Each Hand.



From there, options of two different pairs of mallets in each hand can be expanded all the way up to eight different mallets. Two sets of four identical mallets may also be split between the two hands with the inside pair of mallets on each hand different from the outside pair as seen in figure 3.7. In this mallet configuration, the outer mallets in each hand are softer than the inner mallets. This might be used if a contrast is necessary between the inner and outer mallets. This contrast could be related to dynamic, timbre, or both. Such a configuration might be used if the inner mallets are playing predominately on accidentals and the outer mallets are playing on naturals. The outer two mallets on each hand may perform a four- mallet chorale interspersing the inner mallets for contrast. Despite the stated possible uses for the mallet choice seen in figure 3.7, this mallet configuration is not standard and most likely would not be suitable for performing an entire composition. The opposite of this configuration is also possible but most likely not practical due to the timbres it would produce.

Figure 3.7. Eight-Mallet Graduation, Inner Mallets Different than Outside Mallets.



The performer may also choose to have four different pairs of mallets graduated in hardness from left to right. This option as well as many other options available as a result of using eight mallets should be approached with caution. The variations in timbre, dynamic, and overall sound will become too great as a result of the number of different mallets used.

It is important to remember that the range of the instrument used and the nature of the piece should play a large role in mallet choice. Since eight-mallet grips require time to assemble in the hand, changing mallets in a piece is not as easily managed as in two- or four-mallet performance. A large period of rest would assist in changing mallets. If changing mallets was necessary in an eight-mallet work, significant practice of this change would need to occur in order to ensure the eight-mallet grip can be reassembled in time for the next attack. As such, it is more practical to use the same mallets throughout the piece. Exploration and careful listening can help to ensure proper mallet selection for an eight-mallet work.

#### MUSICAL POSSIBILITIES

The ability to perform up to four pitches with each hand expands the musical possibilities for composition and performance. Keyboard percussion is at a disadvantage to the piano, on which pianists can perform ten or more pitches simultaneously with ease. This is significantly more challenging on a keyboard percussion instrument, if it is even possible with good technique and tone. Performing with six or eight mallets helps to close this gap between keyboard percussion and piano.

With eight simultaneous pitches, the percussionist can play fuller chords with expanded harmonic possibilities. Several seventh chords in any inversion may now be played with one hand. In addition a cluster chord of four notes in a row, whether diatonic or chromatic, may also be achieved with one hand. Chords comprising seven or eight notes may be performed. Two notes may be struck simultaneously with the inside two mallets of each hand followed by the outer two mallets of each hand, or vice versa. In essence, the tonal possibilities of four-mallet playing have been doubled.

Most importantly, a composer now has significantly more musical possibilities to incorporate into keyboard percussion composition. However, the composer must recognize that just because eight mallets can be used at once does not mean they should be used at once. When eight-note chords are used, composers must ensure they can be performed with proper technique to avoid injury and/or awkward sticking or transitions.

## TECHNIQUE

With the expanded musical possibilities of eight-mallet performance come numerous opportunities for decision making. While making decisions, the performer must also keep in mind keep good technique to ensure quality sound and avoid injury. Altering one's hand or finger positioning to compensate for the weight of the additional mallets may place undue stress of certain parts of the hand. Also, modifying correct form to achieve specific tonal possibilities will result in diminished sound quality as well as harmful tension in the hand.

As a result, it is important to remember that the mallets should be able to lie flat on the keyboard while held in any eight-mallet grip, even though they do not lie flat inside the hand. It is vital to remain vigilant not to use the arm as the key source of power but rather the wrist and then the fingers in that order. Over-rotating the wrists inside towards each other or outside away from each other to use the inside two mallets or outside two mallets causes two significant issues. (1) Tension is created in the arm and wrist, and full extension and normal rotation is unable to be achieved. As a result sound quality is diminished and injury may occur. (2) The ability to play the other mallets in a timely fashion is reduced as a result of their elevated status.

Gripping the mallets too hard to maintain control causes undue stress and enables the performer's sound to be pinched and uneven. Conversely, gripping the mallets too loosely focuses attention on maintaining control of all the mallets and shifts it away from tone production. The mallets should feel comfortable in the hands without unnatural and overwhelming stress or tension.

When executing eight-note chords or performing with eight mallets, striking areas on the bars should be as consistent as possible. Striking a four-note chord with one hand where all four bars are not struck in the same area of the bar will cause a difference in sound quality and projection between the differing striking areas.

These issues and considerations in regard to eight-mallet grips are not unlike those encountered with four- and six-mallet grips. However, they are amplified when performing with eight mallets as a result of the additional mallets.

CHAPTER 4  
*MARIMBA MOODS II*  
BACKGROUND

The first eight-mallet piece composed is *Marimba Moods II* (1998) by Ludwig Albert. In the score's program notes Albert writes,

The solo playing of 8 mallets is a World-premiere developed by Ludwig Albert. This basic improvisation grows into a true composition (August'98) and fully exploits the effectiveness of using 8 mallets. A simply repeated rhythmic figure supports this entire piece to the end. At first you can hear fragments of a melodic theme in the lower register. After a short rhythmical cadenza the theme is played in full, 8 part chorale style. To the end repeated fragments with the adding of accents, powerful pauses and special techniques are contrasting and creates a powerful musical effect making this piece very impressive.<sup>31</sup>

The piece had its European premiere in Belgium in March 2001 at the Universal Marimba Competition and Festival. Its Asian premiere was in Tokyo, Japan in September 2001.

As documented in Chapter 1, George Hamilton Green would dazzle his audiences with stunts of six and eight mallets. Whether Green performed with eight mallets in solo or ensemble playing is not known. As such, Albert's assertion that he was the first to play with eight mallets seems to be false. Albert did however succeed in composing the first keyboard percussion piece to specifically call for use of eight mallets in performance as the reports state that Green would use the extra mallets to fill out harmonies.

---

31. Program Notes for Ludwig Albert's *Marimba Moods II*. Ludwig Albert, *Marimba Moods II*, Score. Masbree, Netherlands: Beurskens Muziekuitgeverij, 2001.

## ANALYSIS

The form of *Marimba Moods II* is seen in table 1. The prominent Theme 1 is transformed and returns in five variations during the piece. Four other themes are present in the piece as are several transitions. Theme 2 is the only other theme that contains a variation. An introduction and coda bookend the piece providing a sense of closure.

Table 1. *Marimba Moods II* Form

Form	Measures
Introduction	1–6
Theme 1	7–10
Theme 2	11–26
Transition	27–28
Theme 1 Variation 1	29–40
Theme 1 Variation 2	41–52
Transition	53 –54
Theme 3 (Improvisation)	55–67
Theme 4	68–75
Transition	76–80
Theme 1 Variation 3	81–101
Transition	102-107
Theme 1 Variation 4	107-112
Theme 2 Variation 2	113-120
Theme 1 Variation 5	121–135
Transition	136-143
Coda	144-153

After a six-bar introduction, the first appearance of Theme 1 occurs in measure 7 and features single notes rolled in each hand. The theme, seen in figure 4.1, features a rising and falling line that features predominately stepwise motion. This line is typically played with mallets 4 and 8 due to the movement of the line and the stability and control of these mallets.

Figure 4.1. Theme 1 Measures 7-10.



In the first variation (measures 29-40) seen in figure 4.2, an interplay between the two hands is present. The theme is expanded and instead of being played in a slow tempo, the note lengths are shorter and the tempo is much increased. The performer has several options as to the sticking of this variation. In measures containing stems pointing both up and down, alternating mallets 4 and 5 works well. This is in contrast to the measures featuring only stems pointing up which should be played with either mallets 5 or 8.

Figure 4.2. Theme 1 Variation 1 Excerpt Measures 30-32.





In the second variation of Theme 1 seen in figure 4.3, the right hand melody is now harmonized creating a seventh chord on each note. The dynamic level has now been increased to *f* in the variation as opposed to *mf* in variation 1 and *p* in the original theme.

Figure 4.3. Theme 1 Variation 2 Excerpt Measures 46-48.



The third variation (measures 81-101) seen in figure 4.4, introduces interruptions of the original theme by the performer playing on the edges of the bars with the mallet shafts. The shaft of mallet 5 should be used for the notations on the treble clef staff and the shaft of mallet 4 should be used for notations on the bass clef staff.

Figure 4.4. Theme 1 Variation 3 Excerpt Measures 89-92.



In the fourth variation (measures 107–112) seen in figure 4.5, the original theme returns but instead of single notes in each hand, the theme is performed in an eight-voice chorale. The voices are transposed up a step and the motion of the left hand is different.

Instead of moving in unison with the right hand, as in the original appearance of the theme, the left hand descends in the first two measures followed by contrary motion with the right hand in the final two measures.

Figure 4.5. Theme 1 Variation 4 Excerpt Measures 108-112.

The image shows a musical score for Theme 1 Variation 4, measures 108-112. The score is written for two staves, treble and bass clef, in 4/4 time. The tempo is marked 'Largo'. The dynamic is 'mf'. The music features a complex rhythmic pattern with many sixteenth notes. The left hand descends in the first two measures, and the right hand descends in the final two measures. The score includes a 'rit.' marking and a fermata over the final measure.

The final variation of Theme 1 (measures 121–135), seen in figure 4.6, features the theme in eight voices but the two four-note voices are a sixteenth beat apart. This disjunction leads into dissonant eight-note chords notated over two octaves below the disjunct theme. These octave jumps are alternated with playing on the edges of the bars with the shafts of mallets 4 and 5 as seen in variation 3.

Figure 4.6. Theme 1 Variation 5 Excerpt Measures 128-131.

The image shows a musical score for Theme 1 Variation 5, measures 128-131. The score is written for two staves, treble and bass clef, in 4/4 time. The tempo is 'Largo'. The dynamics are 'sfz', 'mf', and 'mp'. The music features a complex rhythmic pattern with many sixteenth notes. The left hand descends in the first two measures, and the right hand descends in the final two measures. The score includes a 'rit.' marking and a fermata over the final measure.

Albert's use of variations of a single theme through interplay between the hands, varying striking areas, phrase elongation, addition of voices, and rhythmic disjunction provide contrast and interest while keeping a central theme throughout the piece.

Theme 2 (measures 11 – 26) seen in figure 4.7, has a variation which appears towards the end of the piece, right before Theme 1's final variation. Theme 2 rises and falls encompassing almost the full range of the marimba. Single notes in the right hand, played by mallet 8, become a four-note chord while the left hand sustains a roll on A using mallet 1 or 4. In measure 23, four-note chords in each hand are performed alternating a sixteenth beat apart. This section requires a great deal of control to maintain a sustained sound in the left hand and bring out the melody in the right hand. The distance between these two voices begins at one octave and expands to over three octaves before ending in the same octave in measure 25.

Figure 4.7. Theme 2 Excerpt Measures 15-22.

The image displays two systems of musical notation for a marimba piece. The first system, labeled '8<sup>va</sup>' at the beginning, covers measures 15 through 22. The right-hand staff (treble clef) contains a melodic line of eighth notes, while the left-hand staff (bass clef) features a sustained, wavy line representing a roll on a specific note. The second system, labeled 'loco', covers measures 19 through 22. In this section, the right-hand staff plays a series of four-note chords, and the left-hand staff continues with the sustained roll. The notation uses standard musical symbols including clefs, stems, beams, and note heads.

In the variation of this theme (measures 113 – 120) the theme begins an octave higher and the single note line in the right hand is shortened tremendously to one repeated measure. In the original presentation of Theme 2, the descending pattern ends on a tonic seventh chord in third inversion in the left hand. When it returns it resolves to the Bm7 that it began on and this time ends on the right hand. In each iteration of the descending pattern, the final measure features both hands playing four-note chords in the same octave. Performing these chords in such close proximity to each other poses a challenge to the performer to accurately play all the notes at a fast tempo without tangling the hands.

Two other themes, Theme 3 (measures 55–67) and Theme 4 (measures 68-75), are introduced and feature 12/8 and 7/8 meters in stark contrast to the 4/4 and 2/4 which dominate the piece. Theme 3 is comprised of a written out improvisation section. The measures in this section contain dotted bar lines in contrast to the solid bar lines in the rest of the piece. In order to ensure a smooth transition in the right hand from the single line in measure 55 to the full four-note chords in measure 58, a logical progression of adding mallets should occur. Mallets should be added from the outside of the hand to the thumb with the outer mallet (mallet 8) playing the single line. In the left hand, the texture grows as well with the outer- and inner-most mallets playing in succession followed by adding mallets 3 and 2 in that order. An excerpt of this is seen in figure 4.8.

Figure 4.8. Theme 3 Excerpt Measures 55-58.

A little faster ♩ = 152

55

improvisation

*p* *mp*

The texture in the right hand in Theme 3 builds and culminates in the heavy four-note chords in the right hand in Theme 4, seen in figure 4.9. In the left hand, an outward to inward rocking motion is necessary to perform this passage.

Figure 4.9. Theme 4 Excerpt Measures 68-70.

*f*

*Marimba Moods II* features many changes as well as special techniques in its 153 measures. Changes occur through meter, tempo, dynamics, range, and number of mallets used. One aspect of the piece that does not change is the key. *Marimba Moods II* features no accidentals, key signatures, or key changes. The piece stays in A minor throughout its duration. Though Albert claims this piece fully exploits the effectiveness of using 8 mallets, omitting half of the marimba is but one way this piece does not fulfill

his claim. Another way is that he does not use all combinations of mallets that are available when performing with eight mallets. He does however use special techniques not typically used in keyboard percussion performance. These include using the mallets and marimba in non-traditional ways, such as striking the mallet together, and the performer incorporating body movements such as stomping one's feet.

The meter of the piece changes frequently with eight different meters being used. The longest time a meter is used continuously is for 17 measures while the shortest time is one measure. Overall, there are 98 meter changes in the 153 measures of the piece. The meter changes do follow a pattern the majority of the time which assists both the listener and performer. The score assists the performer with the multiple meter changes by adding a double bar between each meter change. The meter, the number of times it is used, and its duration is seen in table 2.

Table 2. *Marimba Moods II* Meter

Meter	Measures	Frequency
C	9, 11-27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 73, 75, 102 – 107, 110, 112 – 120, 145, 152	52
2/4	28, 54, 76 – 79, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 124, 126, 130, 132, 135 – 143, 146, 148, 151, 153	33
3/4	1 - 4, 6, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 80 – 81, 85, 89, 93, 97, 101, 121 – 123, 127 – 129, 133 – 134	32
12/8	55 – 67	13
5/4	5, 7, 8, 10, 108 – 109, 111	7
7/8	68 – 72, 74, 144	7
9/8	83, 87, 91, 95, 99, 125, 131,	7
6/4	149, 150	2

The meters used in the piece help delineate sections of the piece. For example, the longest sustained use of one meter other than 4/4 is the 12/8 section in measures 55 – 67. This section is the only use of 12/8 in the piece and also is the only improvisation section in the piece.

The changing of meters also helps to create different senses during the piece. The interplay of 2/4, 3/4, and 4/4, the three most used meters in the piece, helps create a sense of imbalance resulting from the continued switching from duple to triple meter. During the parts of the piece when this interplay ceases, a new sustained meter is introduced and a sense of stability is formed. This sense of stability is false though because the meters that are sustained after this interplay (12/8 and 7/8) feature syncopation, pickups to the following measure, and convey a sense of instability. A sense of stability is not reached until the final two measures where the main theme returns before a final blow between the resonators. The final notes, the tonic and dominant of the piece, E and A, are played together a 10<sup>th</sup> apart.

There are twelve tempos indications used during the piece. The tempo marking, metronome marking, and measures it includes are seen in table 3.

Table 3. *Marimba Moods II* Tempo

Tempo Marking	Metronome Marking	Measures
Adagio	♩ = 52	1 – 6
A Tempo	♩ = 58	7 – 10
Allegro	♩ = 126	11 – 28
Vivace (freely)		29 – 54
A little faster	♩ = 152	55 - 80
A Tempo	*♩ = 58	81 - 104
A Tempo	♩ = 132	105 – 107
Largo		108 – 112
Allegro	♩ = 126	113 – 143
A Tempo Vivace	♩ = 160	144 – 146
Largo		147 – 148
Allegro	*♩ = 126	149 - 153

The tempo markings range over 100bpm from the slowest marked at ♩ = 52 to its fastest marked at ♩ = 160. There are five tempo markings that do not indicate a specific metronome marking. Of those five, two have been marked with an \* in table 3 for the same reason. The first is the A Tempo marked at measure 81. It occurs after a ritardando and the melodic material is similar to the A Tempo marked at measure 7. As such, ♩ = 58 seems the logical tempo to be used. The second marking is the Allegro found at measure 149. The marking Allegro is notated twice before at measure 11 and 113 with the tempo ♩ = 126. Measure 149 appears after a ritardando and the melodic material is similar to the two previous Allegro sections so ♩ = 126 seems the logical tempo to be used. The



two Largo sections and the Vivace (freely) section do not contain notated metronome markings so conventional standards should be used.

In *Marimba Moods II*, the tempo changes are significant. They indicate a new section of the piece is beginning and act as contrast to the previous section. At no point in the piece does Albert change tempo in the middle of a section. The addition of new material and a new tempo assist the listener in hearing the progression of the piece.

Ritardandos occur nine times, an accelerando occurs in measure 102 and 103, and a ritenuto occurs in measure 150. These tempo alterations typically occur before new sections in the piece and serve as an indication that new material will be forthcoming. The presence of these signifies a lack of drastic tempo changes in the piece without a tempo alteration preceding them. In executing the tempo alterations and changes in the piece, the performer must carefully guide the listener in discerning the nuances in tempo in the piece.

Dynamics and the range of the instrument used vary in the piece. Five different dynamics, *p*, *mp*, *mf*, *f*, and *ff* are used as well as multiple instance of crescendos and decrescendos. Some crescendos and decrescendos are intertwined with accelerandos, ritardandos or diminuendos, while others stand alone. *Sfz*s appear seven times during the piece. Almost the entire range of naturals on a standard five-octave marimba is used from the high C three octaves above middle C to the D below the bass clef. 8va on the treble clef staff is used in seven full measures and parts of six other measures. However the 8va in measure 135 indicates an E above the range of a five-octave marimba. Among those seven measures, measures 136 – 138 feature minor seventh chords followed by

cluster chords separated by several octaves. The glissando in measure 143 spans over four octaves.

Albert uses dynamic contrast throughout the range of the marimba. As more mallets are used the dynamic increases. As each idea is developed in each section, the dynamic increases resulting in the loudest dynamic at the impact point of the section. Overall, the dynamic marking notated corresponds with the number of mallets used and the phrasing of the sections.

*Marimba Moods II* features two types of fermata notations. Round fermatas occur seven times and triangle fermatas appear twice. In measure 28, two breath marks appear in the right hand. These breath marks remind the performer to continue the ritard further in preparation for the drastic tempo change in the following measure. When used, fermatas emphasize important contrasts in the piece. The contrast between eight-note chords and fewer is emphasized in measures 1, 7, 80, 107, 111, 112, 146, and 148. The fermata in the last measure, measure 153, signals to the performer the importance of the last two notes, the final resolution of the piece. The appropriate touch should be used to try to maintain the sound of these notes despite the *p* dynamic and the fleeting nature of notes struck on the marimba.

In terms of measure repeats, the number of measures repeated indicates the number of times it is to be repeated. For example, when a single measure is repeated, it is repeated once. When two measures are repeated, they are repeated either three or four times. Albert uses repeats several ways during the piece. One way is to emphasize special techniques like stomping feet and striking mallets together in measures 72-75.

Another is the recurrence of a theme as in measures 113, 148 and 149. The last way is to introduce new material as in measures 144 and 145.

The number of mallets used in the piece varies and this variety helps create different textures. The first two mallet attacks in the piece feature an eight-note chord followed by a sustained eight-note roll. In measure 5, five mallets are used as a single pitch is rolled in the left hand while the right hand sustains four notes. Two mallets are used for the next twelve measures. In measure 42, four mallets are used at the same time, all in the right hand. Single notes are used for the first time in measures 53 and 54. Three mallets are used simultaneously in measure 58 as are six mallets. In all, seven different numbers of mallets are used in the piece in several different combinations between the two hands. This diversity in the number of mallets used and the combinations in which they are used helps determine which mallet combinations using which notes are possible in eight-mallet performance.

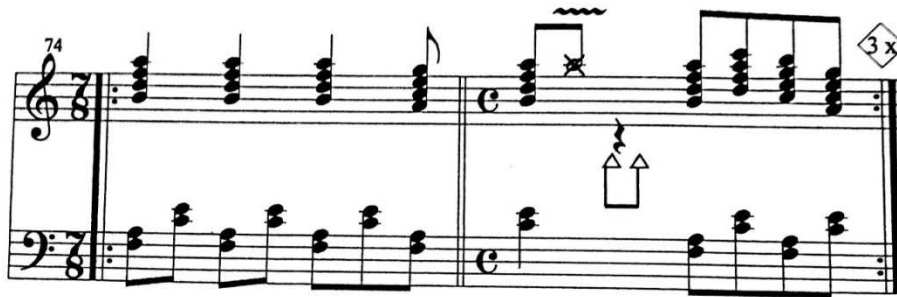
In terms of special techniques, blowing into the resonators between the A and G on the top of the bass clef staff occurs three times (the first, second, and last measure). An example of this is seen in figure 4.10. The duration of the blow is specified as an eighth note at a *f* dynamic. To execute this correctly, the performer should practice exhaling short bursts of fast air into their hand placed approximately six inches from their mouth. Once this is achieved standing up, this technique can be tried while bent at the waist in order to blow through the resonators.

Figure 4.10. Resonator Blow Measure 1.



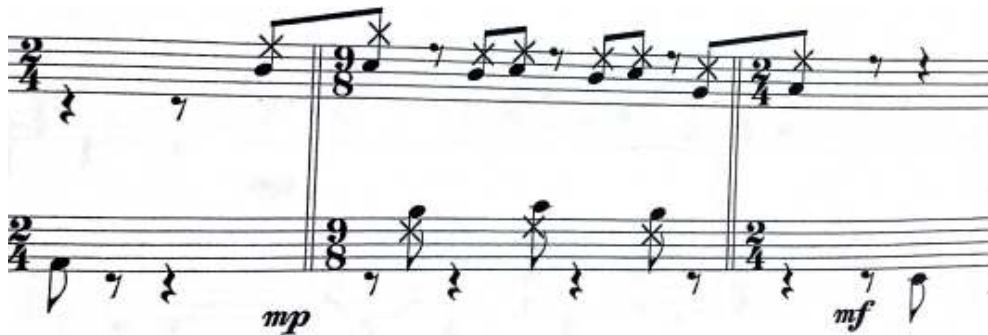
Striking the mallets together and then stomping on the ground twice occurs back to back in the 7/8 4/4 section as seen in figure 4.11. The triangle notation indicates the feet are to be stomped on the floor in succession. The x over the notehead indicates the mallets should be struck together. In performing this technique, the mallets move from a horizontal position to a more vertical position. This creates both an aural and visual effect. It does not matter which hand strikes the other or which foot is used for the stomps. It is advisable to use one foot for both stomps and not one followed by the other. If each foot stomps once in succession at the tempo indicated, the following entrance of eight-note chords will most likely be delayed. The performer should devote a great deal of attention to the coordination between the mallets and the feet in this section. Both are used in a manner not typically used in marimba performance and since they are appearing together at a fast tempo, great coordination is needed.

Figure 4.11. Striking Mallets and Stomping Feet Measures 74-75.



Also, the performer is called upon to strike the ends of the bars with the mallet shafts in sixteen measures as seen in figure 4.12. This passage should be performed with mallets 4 and 5 because of their location in the hand.

Figure 4.12. Mallet Shafts Striking Bars Measures 82 – 84.



Each of these techniques helps create a dynamic and varied piece as a result of the special techniques that the performer is called upon to perform. Albert employs these to accentuate the music. The energized, uneven, 7/8 pattern seen in figure 4.11 is interrupted by a 4/4 measure featuring foot stomping and mallet striking. The contrast between the static harmony in the right hand in 7/8 and the moving harmony in 4/4 is magnified as a result of the physical techniques employed. In contrast, the *p* mallets shafts striking the end of the bars in figure 4.12 produce a quieter sound, which contrasts

the preceding section as well as the preceding *mf* bass line. Blowing into the resonators creates a very unique sound which fits perfectly with the uniqueness of this piece. The blows between the resonators at the beginning of the piece precede the first eight-note chords while the last blow precedes the resolution in the last measure. This technique bookends the piece providing a sense of cohesiveness.

The significance of *Marimba Moods II* is clear. It was the first eight-mallet piece ever composed and until 2013 it was the only eight-mallet piece ever composed. The dynamic contrast between the opening blow between the resonators to the first eight-note chord that immediately follows creates a profound effect. Such dynamic contrasts appear constantly in the piece as do large tempos contrasts. The use of recurring themes, that are varied each time they appear, help guide the listener and help form a cohesive piece of music. Ludwig Albert succeeds with *Marimba Moods II* as not only a piece of quality marimba music but as the first eight-mallet marimba work.

CHAPTER 5  
*PASSING*  
BACKGROUND

I composed *Passing* in fall 2013 and premiered it in April 2014 at the Indiana University of Pennsylvania as part of a lecture recital connected to this thesis.

The concept of *Passing* originally began as a result of a wish to explore the tonal possibilities of eight-mallet marimba beyond what was already composed for the medium. A substantial portion of that exploration would include the use of accidentals. To help achieve that exploration, I undertook a study of the chords that were easily achievable and thus “comfortable” to perform with eight mallets before I began composing. I then split these chords into three categories: Naturals, Accidentals, and Mixed, containing both naturals and accidentals.

All eight-note chords performed on strictly accidentals or naturals that consist of an octave or less can be performed with relative ease. In performing eight-note chords on only accidentals, the difficulty lies in the performer having the control to alter the intervals between the mallets to adjust to the gaps in the bars. This can be achieved by moving the thumb and pointer finger and using the pinky to pivot the outer mallet. The direction and movement of each of these fingers will be depend upon the size of the person`s hand, the eight-mallet grip used, and the desired intervals. Some mixed eight-note chords can be performed with relative ease while others are not playable at this time. Difficult to achieve six-mallet chords like Eb-G-Bb continue to be difficult to achieve when adding a fourth note to the chord. To explain these chord possibilities, the four mallets in the hand were numbered 1-4 from left to right and the results are seen in table 4.

Table 4. Playable and Not-Playable Eight-Mallet Mixed Chords

Playable Eight-Mallet Mixed Chords	Not-Playable Eight-Mallet Mixed Chords
2, 3, and 4 on accidentals and 1 on a natural (i.e. C-Eb-Gb-Bb)	1 and 4 on accidentals and 2 and 3 on naturals (i.e. Eb-G-B-Db)
1, 2, and 3 on accidentals and 4 on a natural (i.e. Eb-Gb-B-D)	1, 2, and 4 on accidentals and 3 on a natural (i.e. Eb-Gb-B-Db)
2 and 3 on accidentals and 1 and 4 on naturals (i.e. C-Eb-Gb-B)	1, 3, and 4 on accidentals and 2 on a natural (i.e. Eb-G-Bb-Db)
3 and 4 on accidentals and 1 and 2 on naturals (i.e. C-E-Gb-Bb)	
1 and 2 on accidentals and 3 and 4 on naturals (i.e. Eb-Gb-B-D)	
3 on an accidental and 1, 2, and 4 on naturals (i.e. C-E-Gb-B)	

A large portion of mixed chords can be achieved using eight mallets, but the sheer number of notes in each chord requires the following considerations. Performing a substantial number of these chords in a short duration will require extensive practice to execute these chords with proper technique and form to avoid injury. Straining the hands to achieve mixed chords will reduce the sound quality that is produced. In addition, learning to read the eight-note chords quickly, regardless of how they are displayed, will require significant study on the part of the performer.

*Passing* contains several instances of natural chords, accidental chords, and mixed chords. These are interspersed throughout the piece as the music calls for them. In addition to the new eight-note chords used in *Passing*, several new eight-mallet marimba techniques never before documented are included in the composition. These techniques will be discussed in the next section.

The title *Passing* represents many meanings as it relates to the piece. First, in discovering new techniques for marimba performance I passed into new realms of



exploration. The passing of thematic material back and forth as well as the passing through several time and key signatures is represented through the title. The title also represents the passing through of numerous combinations of number of mallets being used at the same time.

## ANALYSIS

The form of *Passing* is seen in table 5. Several themes of differing lengths transition directly into the next or are separated by a transition. The passing through of several themes is a homage to the title.

Table 5. *Passing* Form

Form	Measures
Introduction	1–11
Transition	12–15
Theme 1	16-30
Theme 2	31-46
Theme 3	47-61
Theme 4	62–80
Transition	81–84
Coda	85-99

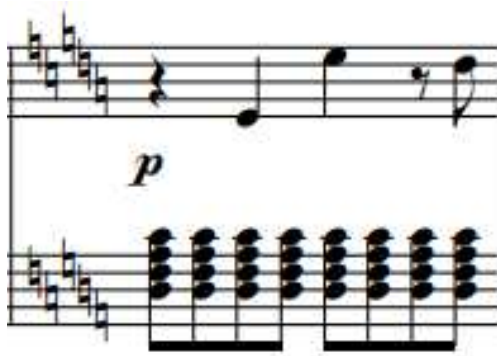
The introduction begins on a tonic chord in D major which starts a motive in the first two measures. This motive, seen in figure 5.1, is followed by two varied repetitions in which the original motive is expanded each time. The use of four mallets in one hand occurs in the first measure of the piece and then does not appear again until measure 13. Since this chord contains an accidental, F#, striking this bar on the outer edge closest to the performer is more practical than trying to strike this bar in the center due to the logistics of playing four notes with one hand.

Figure 5.1. Introduction Motive Measures 1-2.



The uplifting feeling in the introduction is changed to a driving mood as the key changes to B major in measure 12. This transition in B Major leads to Theme I appearing in C major in measure 16, as seen in figure 5.2. The driving mood is retained in Theme I despite the key change. The ascending chromatic passage in measure 23 changes the driving motive in the left hand into first inversion. The last three measures of Theme I (measures 28-30) return to B major. The modulation to this key occurs in measure 27 as the last two chords frame the chord on beat one in measure 28.

Figure 5.2. Start of Theme 1 Measure 16.



Theme 2 (measures 31-46) features two complementary motives found in the first three beats of measures 31 (figure 5.3) and 39 (figure 5.4) respectively. These motives are introduced separately and then joined together in measures 42-46 to end the theme.

The first two iterations of the first theme are interrupted by the 3/4 measure, measure 34. Measure 38 acts as a transition to the second motive which begins in measure 39. In each motive the mallet nearest the pinky in the left hand, mallet 1, is used to perform the lowest note in the motive, which is located on the bass clef. In motive 1, the sticking 4-5-8 should be used. In motive 2, D should be played with mallet 4, F on the staff with mallet 5, and the notes above these played with mallet 8.

Figure 5.3. Theme 2 Motive 1 Measure 31.

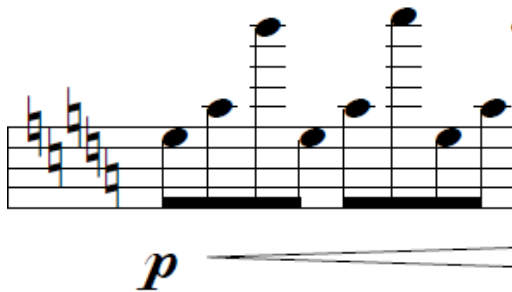
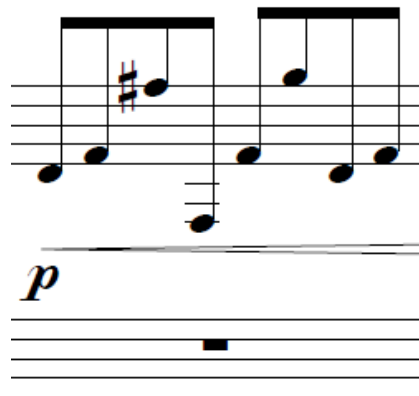


Figure 5.4. Theme 2 Motive 2 Measure 39.



A growing sense of tension is felt in Theme 3 (measures 47-61) as swells represented through *fp* crescendos lead into different parts of the theme. The C<sup>o</sup> maj7 chords in measures 47 and 48 in the left hand propel the measure forward as the right hand alternates between using the inner and outer mallets. A slight forward to backward

rocking motion in the right hand wrist is necessary to perform this passage. Before these C<sup>o</sup> maj7 chords are repeated in measures 51 and 52, the motive is transposed as seen in figure 5.5. The propulsion builds in measures 52-55, but is disrupted in eighth-note rolls spread over almost the entire range of the marimba. The buildup returns in measures 58-61 but this time results in a half rest followed by an over two-octave fall into Theme 4.

Figure 5.5. Theme 3 Excerpt Measures 49-50.



Theme 4 (measures 62–80) enters strongly with Ebm7 in both hands. The harmony in this block-chord motive moves to an Em7 in the left hand with E-Gb-Bb-Db in the right hand. The harmony spreads out in measures 67 and 68 with the right hand moving to the treble clef, as seen in figure 5.6. This leads into two expanding four-measure roll motives. The left hand rolls with mallet 4 as the right hand begins with mallet 5 before adding mallets 6 and then 7. Rhythmic interest is increased in the next four measures as syncopation, sixteenth notes, and triplets are present. Finally, starting in measure 81 the tempo and dynamic decrease as block four-note chords descend in the right hand transitioning into the Coda.

Figure 5.6. Theme 4 Excerpt Measures 68-70.



As the piece passes into the Coda, the uplifting feeling of the introduction begins again. The tempo returns to  $\text{♩} = 80$  and the texture gradually expands until it rests on V7 chords in both hands in measure 90. A sustain on the mediant in measure 97 resolves to the tonic for the final two measures. The harshness of the median chord serves as a reminder of some of the more brutal sections through which the piece progressed.

*Passing* expands the realm of eight-mallet performance by incorporating several techniques never before performed with eight mallets. Similar to *Marimba Moods II*, many changes as well as special techniques occur during its 99 measures. Changes occur through key, use of accidentals, meter, tempo, dynamics, range used, note values, and number of mallets used. Special techniques include using mallets in non-traditional ways and incorporating four and six-mallet techniques into eight-mallet technique. These changes and techniques are used to add interest and variety throughout the piece.

In the first measure of music, a stark contrast to *Marimba Moods II* is seen immediately. The piece begins in the key of D Major and in the first measure the first accidental is used in an eight-mallet keyboard percussion composition. *Marimba Moods II* used only the naturals on the marimba and omitted use of any accidentals or key changes. In all, *Passing* moves through three different keys, D, B, C, and key changes

occur five times. Both flats and sharps are notated in the score. The different keys help differentiate the sections of the piece.

Meter and tempo do not change as much as *Marimba Moods II* but the changes are just as important in marking different sections and altering the progression of the piece. Three different meters are used, 4/4, 3/4, and 2/4, with 4/4 being the meter used in each measure except for one measure in 3/4 and two measures in 2/4. The first 2/4 measure in measure 2 acts as the final measure in the two-bar motive on which the introduction is based. The 2/4 in measure 11 acts a resting point in the last measure of the introduction. The quarter note rest signals momentary rest before the first key change in an eight-mallet piece occurs. The tempo jumps to  $\text{♩} = 112$  and a four-note chord occurs in the right hand helping to transition into the first theme. The 3/4 time signature in measure 34 acts as a stark contrast in harmony and volume to the surrounding measures. This disparity is also signified through the change of time signature in this measure. Two tempos are used in the piece,  $\text{♩} = 80$  and  $\text{♩} = 112$ . The majority of the transitory and thematic material is  $\text{♩} = 112$  while the tempo in the introduction and coda is  $\text{♩} = 80$ . Ritardandos lead into each transition with the exception of the first one which is an immediate tempo change in measure 14.

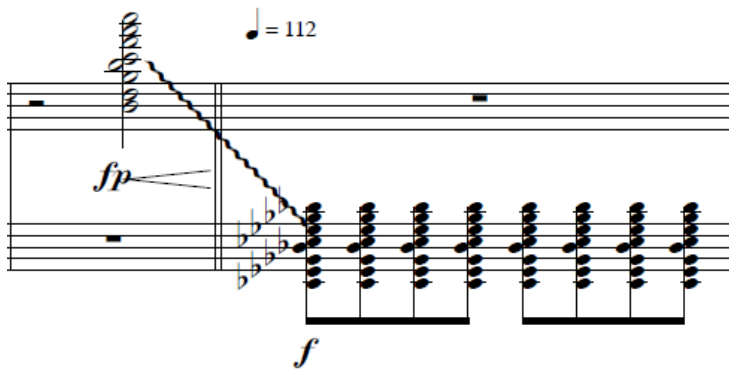
The dynamic range of *Passing* includes *p*, *mp*, *mf*, and *f*. *Afp* and several crescendos and decrescendos are notated, including the final measure where it decrescendos to *niente*. This wide dynamic range is necessary as the piece passes through several unique sections. The entire range of a standard five-octave marimba is used including a span of several octaves in a small number of measures. An example of this

can be seen in measures 56 and 57 and measures 61 and 62 respectively in figures 5.7 and 5.8. Using the entire range of the marimba fulfills the initial goal of studying to see if the entire range of the marimba could be used effectively in eight-mallet keyboard percussion composition and makes this goal a reality.

Figure 5.7. Eight-Note Rolls Spanning Several Octaves Measures 56 and 57.



Figure 5.8. Two+ Octave Glissando Measures 61 and 62.



The first appearance of sixteenth notes in eight-mallet writing occurs in measure 78, seen in figure 5.9, as naturals and accidentals are used together to create chromaticism in the ascending sixteenth notes. These sixteenth notes are performed with mallet 1 striking the first note and mallets 4 and 5 alternating the remainder of the notes. The independence required to transition from a chord using two hands in the first two

beats of measure 78 to the linear playing in the last two beats of the measure is difficult to achieve at the notated tempo. This sixteenth-note passage transitions back into chords that use both hands together and separated. The following measure, measure 82, features the first appearance of triplets in eight-mallet writing, seen in figure 5.10. The sticking for these triplets should be 5-4-5-4-1-1. These broken triplets descend on accidentals which is a first for their use in eight-mallet composition as well as the part of the marimba that they are played.

Figure 5.9. First Appearance of Sixteenth Notes in Eight-mallet Composition.



Figure 5.10. First Appearance of Triplets in Eight-mallet Composition Measure 82.



The number of mallets used varies as well as the ways in which they are used. A four-note chord begins the piece. It is followed by single mallet lines intermixed with a one-hand roll in the right hand and a single line in the left hand. The number of mallets increase and decrease from two to four as the chords fill out and the line crescendos and decrescendos. Five mallets are first heard performed together in measure 14. The first appearance of eight mallets used simultaneously occurs in measure 29. Four mallets are used spilt between the two hands and in one hand alone in the piece. The different numbers of mallets used during the piece create different sonorities enabled as a result of



the number of mallets available to the composer. These combinations build upon the combinations used in *Marimba Moods II* and further provide evidence of which chords and combinations of mallets used in eight-mallet performance are feasible.

Special techniques in *Passing* include using mallets in non-traditional ways and incorporating four and six-mallet techniques into eight-mallet technique. The mallets are to be struck on the ends of the bars in measure 19, where ten pitches are to be played with eight mallets. Each pitch is notated as an x with the instruction “(x) – strike edge of bar with mallet shaft” placed below the measure. This notation is seen in figure 5.11. To achieve the desired sonority of ten pitches with eight mallets, the mallets are placed between the bars at different angles. This technique is seen in figure 5.12. The effect of producing more pitches than mallets held is a unique technique seen often in two-and four mallet performance but has never been seen in eight-mallet performance. In two-and four-mallet performance, a mallet may be placed perpendicular to the bars enabling one mallet shaft to strike several notes simultaneously. Another instance of this technique is placing the mallet shaft between two notes. In *Passing*, this has been done on a larger scale using more mallets. The momentary appearance of this technique using eight mallets creates a unique sonority.

Figure 5.11. 10 Pitches Notated.

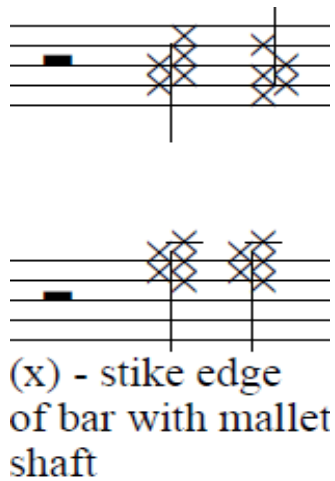
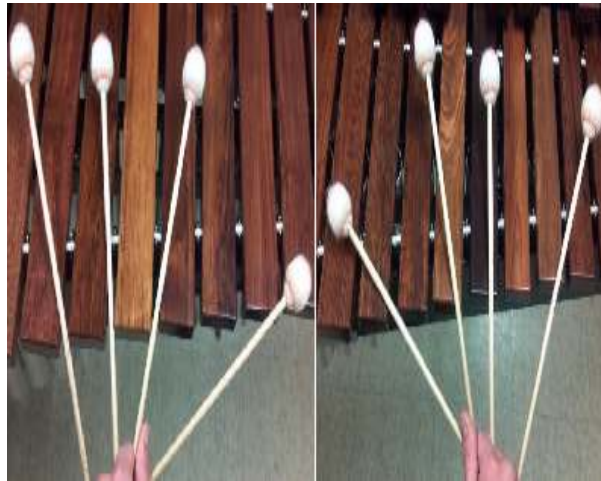


Figure 5.12. 10 Pitches Struck on Marimba.<sup>32</sup>



In four and six-mallet writing, independence of the mallets enables the performer to use all the mallets independently of the other mallets. The first steps towards this in eight-mallet writing appear beginning in measure 47, seen in figure 5.13. The technique of using the inside and then the outer two mallets in the right hand enables four notes to be played in rapid succession with one hand, without the changing of intervals. A slight rocking back and forth motion of the right hand is used to assist in playing the naturals independently of the accidentals. The wrist is lowered to play the naturals and raised to play the accidentals. These movements are slight and contained within the normal wrist striking motion.

---

32. Illustration by the author.

Figure 5.13. Inner and Outer Mallets in Right Hand Used Alternating Measure 47.



Mentioned earlier, the appearance of a one-hand roll in measures two and six mark the first appearance of a one-hand roll in eight-mallet composition. An appearance of this is seen in figure 5.14 with the one hand roll designation (*o*). The approach to these rolls is the same as in four- and six-mallet performance, though considerations and care must be made to maintain smoothness of sound and technique with the added mallet present. The presence of the inner two mallets assist in counterbalancing the outer two mallets executing the roll. Taking the middle and index fingers and slightly lifting the inner mallets higher than the even resting plane of the mallets enables greater success with rolling the outer two mallets.

Figure 5.14. First Appearance of One-Hand Roll in Eight-Mallet Composition Measure 2.



*o* indicates one-hand roll

*Passing* has continued pushing boundaries where *Marimba Moods II* has left off. It uses the whole marimba, accidentals and naturals, and features one-hand rolls, triplets, sixteenth notes, and independence between the inner and outer mallets of one hand in an eight-mallet composition. It also features the first occurrence of ten pitches being played at one time on a marimba by a single performer (measure 19, figure 5.11). The work however was not composed strictly to push boundaries or to further eight-mallet possibilities. Eight mallets are used simultaneously in fewer than 20% of the measures but when present are quite powerful.

The piece aims to take the listener on a musical journey as it passes from key to key, and from consonance to dissonance and back to consonance. The mood of the piece changes as the key and tempo changes. The ending theme is reminiscent of the introduction but is different in numerous ways. Among these are the rhythms, key, number of mallets and meters used. The piece begins and ends in a stable place enabling a sense of resolution. This resolution is also witnessed in *Marimba Moods II* as it ends with a blow between the resonators and a soft final chord.

## CHAPTER 6

### CONCLUSION AND RELEVANCE

During the last century, the number of mallets a keyboard percussionist has manipulated in performance has dramatically increased. As new techniques developed and the performers began to use more mallets, they were met with skepticism and refinement of techniques was needed. In the 1960s, serious exploration with four mallets began and the initial reception was that it was strange. It was considered a passing fad that would never become standard practice. This same reception has occurred for six- and eight-mallet development and will most likely continue as new techniques emerge.

In the past fifty years, four-mallet marimba has become a standardized and acknowledged technique. During that same timeframe, six-mallet techniques have been invented and refined. Method books, exercises, and instructional media have appeared as well as pieces composed for six mallets. In comparison to four or six-mallet performance, eight-mallet performance has a very short existence and as such little exploration and refinement to this point has been done in eight-mallet performance.

This document has revealed the exploration done thus far by keyboard percussionists in terms of grips, techniques, and compositions for eight-mallet keyboard percussion. *Marimba Moods II* and *Passing* have proven the viability and laid the foundation of eight-mallet marimba composition and performance.

Four keyboard percussionists have been identified as employing eight- mallet techniques in performance. Each performer maintains a different grip and discovered eight-mallet techniques in a different way. A distinction between the grips appears when analyzing the part of the hand where the fourth mallet is placed. Boxall and Foo, both female, place the additional mallet on the outside of the thumb while Albert and Kulp

both place the additional mallet between the pinky and ring finger. An explanation of this could be that since females typically have smaller hands than males, placing the additional mallet on the outside of the hand lessens the amount of mallets placed within the hand. Also, since significant weight is placed on the pinky by adding the additional mallet in that location, adding it outside the thumb allows it to rest against the other mallets in the hand. This helps eliminate additional stress to the hand. Another very plausible option is that the Boxall and Foo both prefer that location for the additional mallet as a result of performance or other reasons. My interview with both women did not permit me further inquiry into their reasoning for such a decision nor did my interview with Albert as to his decision.

Whatever the reasoning for the difference, the fact that it exists is of note and the advantages and disadvantages of both locations for the additional mallet is a point for further study. Despite all of these differences, a common theme of exploration into new techniques of extended multiple mallet performance is present within each of these performer`s endeavors.

It is the author`s belief that eight-mallet techniques should and will continue to be refined and the possibility of complete independence with eight mallets or more is a distinct possibility in the near future. The tonal possibilities increase proportionately with the number of mallets added and give a wider range of melodic and harmonic possibilities. However with each additional mallet added significant physical obstacles need to be overcome. Performance with up to twelve mallets is possible and some ways to do this are mentioned in Chapter 2. Study into performing with more than eight mallets should continue but be based on the continued refinement of eight-mallet

technique. Pushing the boundaries to past eight mallets without refining eight-mallet technique is not advisable for health reasons or pedagogic reasons. As such, if eight-mallet performance is studied and refined and obstacles are overcome, then eight-mallet performance could establish itself as a truly viable and respected performing medium and further exploration into using more mallets in performance could continue.

Overall, this document serves to indicate the current state of eight-mallet marimba as well as other extended multiple mallet techniques. It will also hopefully serve as a springboard to additional composition, refinement, creation, performance, and studies of extended multiple mallet technique, especially with eight mallets.

## BIBLIOGRAPHY

- Abe, Keiko. *Marimba Selections II*. Denon 30 CO-1728. Nippon Columbia. CD. 1987.
- Albert, Ludwig. *Marimba Moods II*. Score. Masbree, Netherlands: Beurskens. Muziekuitgeverij, 2001
- \_\_\_\_\_. *Marimba Paraphrases*. Enschede, Netherlands: Beurskens Music Editions: DOM 2910 61- Sabam. CD. 2000.
- Bridwell, Barry, and Scott Lyons. "A Salute to George Hamilton Green, Xylophone Genius." *Percussive Notes* 25, no. 5 (Summer 1987): 54 – 65.
- Bulla, Wesley. "A Study in Expanded, Five- and Six-Mallet Solo Vibraharp Techniques: Part I." *Percussive Notes* 29, no. 3 (February 1991): 47-50.
- \_\_\_\_\_. "A Study in Expanded, Five- and Six-Mallet Solo Vibraharp Techniques: Part II." *Percussive Notes* 29, no. 4 (April 1991): 72-73.
- Burton, Gary. *Four Mallet Studies*. Glenview, IL: Creative Music, 1968.
- Cook, Gary D. *Teaching Percussion*. 2<sup>nd</sup> ed. New York: Schirmer Books, 1997.
- Dyer, Richard "Glennie's triumph has no limits." *Boston Globe*, March 1, 1996.
- Encore Mallets, Inc. "Nancy Zeltsman Series." <http://www.encoremallets.com/products.php?series=3> (accessed February 13, 2013).
- Giesecke, Mark Andres, and Wessela Kostowa. *6-Mallet-Compendium: Für Marimba, Vibraphon*. Winterthur: Edition Swiss Music, 1995.
- Gronemeier, Dean. "Six-Mallet Independence: A New Twist on an Old Idea." *Percussive Notes* 34, no. 6 (Dec 1996): 41, 43, 45.
- Gottry, Josh. "New Percussion and Recordings." *Percussive Notes* 51, no. 3 (May 2013): 75.
- Hampton, Lionel, and Jean-Claude Forestier. *The New Lionel Hampton Vibraphone Method*. Zurich: Musik Hug, 1981.
- Jones, Timothy. "A Survey of Artists and Literature Employing Extended Multiple Mallets in Keyboard Percussion; Its Evolution, Resulting Techniques and Pedagogical Guide". (DMA diss., University of Nevada, Las Vegas, 2003.)



- Kite, Rebecca. "Six Mallet Writing for Marimba." Rebecca Kite: Clinics.  
<http://www.rebeccakite.com/library/Six Mallet Clinic Handout 2008.pdf>  
 (accessed September 16, 2013).
- Kulp, Tyler. E-mail to Ludwig Albert, January 11, 2014.
- \_\_\_\_\_. E-mail to Jane Boxall, March 11, 2013.
- \_\_\_\_\_. Facebook Message to Fiona Pui-Yee Foo. January 11, 2014.
- Marimba Productions Inc., "Yurika Kimura." <http://www.mostlymarimba.com/composers/composers-k-o/959-yurika-kimura.html> (accessed January 13, 2013).
- Musser, Clair O. "The Musser Scrapbook." *Percussive Notes* 37, no. 2 (April 1999): 14.
- Nandayapa, Zeferino. *Metodo Para Marimba*. Tuxtla Gutiérrez, Chiapas, Mexico: Universidad de Ciencias y Artes de Chiapas, 2002.
- Pimentel, Linda. "Marimba Exchange." *Percussive Notes* 18, no. 3 (Spring/Summer 1980): 66.
- Pimentel, Linda, and James Moore. *The Solo Marimbist – Music Arranged and Composed for the Marimba*. Volume II, Columbus, OH: Permus Publications, 1976.
- Pimentel, Linda Lorren. "Multiple Mallet Marimba Techniques." *Percussionist* 14 (1976): 1-21.
- Paterson, Robert. "Introduction to My Six-Mallet Technique." Robert Paterson: Composer. Last Modified 2013. <http://robertpaterson.com/introduction-to-my-six-mallet-technique> (accessed September 16, 2013).
- \_\_\_\_\_. *Six Mallet Marimba*. New York: American Modern Recordings CD, 2012.
- Porter, Joseph. "A New Six-Mallet Marimba Technique and its Pedagogical Approach". Master of Music thesis, University of Lethbridge, 2013.
- \_\_\_\_\_. *Six-Mallet Technique Diversified: A Comprehensive Book and DVD to Learn Six-Mallet Marimba Technique*. Lethbridge, Canada: Porter Publications, 2013.
- Raush, John. "New Percussion and Recordings," *Percussive Notes* 33 no. 2 (April 1995): 71.
- Reddick, Marcus. "A Pedagogical Approach to Six-Mallet Independence for Marimba." (DMA diss., University of Kentucky, 2004.)

- Stevens, Leigh Howard. *Method of Movement*. 2nd ed. Elberon, New Jersey: Keyboard Percussion, 1990.
- Stensgaard, Kai. *Concierto Mexicano*. Score. Denmark: Marim Percussion, 2007.
- \_\_\_\_\_. "List of works for 6 Mallets." Last Modified January 2014.  
[http://eng.marimba.dk/list\\_of\\_6\\_mallets.html](http://eng.marimba.dk/list_of_6_mallets.html) (accessed February 23, 2013).
- \_\_\_\_\_. *Marimba Six Mallet Grip*. Computer Software. *Apple App Store*. Vers. 1.2.0.1 LET Software Aps, Released May 24, 2011.  
<https://itunes.apple.com/us/app/marimba-six-mallet-grip/id438451041> (accessed October 24, 2013).
- \_\_\_\_\_. *The Six Mallet Grip for Marimba*. Odense, Denmark: Eget Forlag, 2008.
- Szymanowski, Karol. *The Six-Mallet Technique for the Vibraphone. Pt. 1*. Bydgoszcz, Poland: Uczelniane Akademii Muzycznej, 2008.
- Wu, Pie-Ching. "Extended Multiple Mallet Performance in Keyboard Percussion Through the Study of Performing Techniques of Flame Dance and Water Fairies by Wan-Jen-Huang." (DMA diss., West Virginia University. 2006.)

# Appendix A – *Passing* Score

## Passing

Score

Tyler Kulp 2013

$\text{♩} = 80$

*mf*

*mf*

*f*

*p*

*mp*

$\text{♩} = 112$

*o* indicates one-hand roll

*o* indicates one-hand roll

(x) - stike edge of bar with mallet shaft

Copyright 2013 Tyler Kulp

2 Passing

22

26

30

34

38

42

*mf*

*f*

*p*

*f*

*p*

*p*

46

*f* *fp*

Measures 46-48: Treble clef contains a melodic line with eighth and sixteenth notes. Bass clef contains a steady accompaniment of eighth notes. Dynamics include *f* and *fp*.

49

*f* *fp* *f*

Measures 49-51: Treble clef continues the melodic line. Bass clef accompaniment features some sixteenth-note patterns. Dynamics include *f*, *fp*, and *f*.

52

*fp*

Measures 52-55: Treble clef has some rests and melodic fragments. Bass clef accompaniment continues with eighth notes. Dynamics include *fp*.

56

*rit.*

Measures 56-59: Treble clef has rests. Bass clef accompaniment features a series of vertical wavy lines, likely representing a tremolo or rapid repeated notes. Dynamics include *rit.*

60

*fp* *f*

$\text{♩} = 112$

Measures 60-63: Treble clef has a melodic line. Bass clef accompaniment features a series of vertical wavy lines. Dynamics include *fp* and *f*. A tempo marking  $\text{♩} = 112$  is present.



63

65 *mp*

68 *mf* *mf*

74 *mf*

78 *mp* *mf*

81 *rit. and dim. poco a poco.....* *p* ♩ = 80

Detailed description: This musical score is for a piece titled "Passing". It consists of seven systems of music. The first system (measures 63-64) is a single bass staff with a key signature of two flats and a common time signature. It features a series of chords with accents. The second system (measures 65-67) is a grand staff with a treble clef and a bass clef. The bass staff continues the chordal texture from the first system, marked *mp*. The treble staff has rests. The third system (measures 68-73) is a grand staff. The bass staff has a melodic line with a crescendo leading to *mf* and then a decrescendo. The treble staff has rests. The fourth system (measures 74-77) is a single bass staff with a melodic line, marked *mf*. The fifth system (measures 78-80) is a single bass staff with a melodic line, marked *mp* and *mf*, and includes triplet markings. The sixth system (measures 81-82) is a single bass staff with a melodic line, marked *rit. and dim. poco a poco.....* and *p*, with a tempo marking of ♩ = 80.

87

87

*p*

*f*

This system contains measures 87 through 92. It features a grand staff with a treble and bass clef. Measure 87 begins with a piano (*p*) dynamic. The bass line has a melodic line with eighth notes, while the treble line is mostly rests. From measure 88 to 92, the bass line plays a dense, rhythmic accompaniment of sixteenth notes, and the treble line has a melodic line with eighth notes. A forte (*f*) dynamic is indicated in measure 90.

93

93

*mf*

*fp*

*n.*

This system contains measures 93 through 98. It features a grand staff with a treble and bass clef. Measure 93 begins with a mezzo-forte (*mf*) dynamic. The bass line has a melodic line with eighth notes, while the treble line has a dense, rhythmic accompaniment of sixteenth notes. From measure 94 to 98, the bass line plays a dense, rhythmic accompaniment of sixteenth notes, and the treble line has a melodic line with eighth notes. A fortissimo (*fp*) dynamic is indicated in measure 96. A fermata is placed over the final note of measure 98, which is marked with a *n.* (ritardando).

# Appendix B – Lecture Recital Program



Indiana University of Pennsylvania

*College of Fine Arts - Department of Music  
Proudly Presents...*

Tyler Kulp

Graduate Percussion Lecture Recital

“Exploration of  
Eight-Mallet  
Keyboard Percussion Techniques”



Cogswell 121

April 19, 2014 7PM



# Program

*This recital is presented in partial fulfillment of the  
requirements for the degree Master of Arts*

History of Extended Multiple Mallet Techniques

Eight-Mallet Artists and the Grips They Employ

Eight–Mallet Considerations

INTERMISSION

Analysis and Performance of  
*Marimba Moods II* (1998) Ludwig Albert

Analysis and Performance of  
*Passing* (2013) Tyler Kulp