

Searching for a Musical Middle Way: A composition for multi-traditional
percussion

Heidi Chan

A THESIS SUBMITTED TO
THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE MASTER OF FINE ARTS

GRADUATE PROGRAM IN MUSIC
YORK UNIVERSITY
TORONTO, ONTARIO

June 2014

© Heidi Chan, 2014

Abstract

This thesis aims to integrate the author's major fields of musical training through a suite of compositions that combines compositional and aesthetic elements of those traditions, namely, Japanese *taiko* drumming, Karnatic drumming, and the Chinese *xiao* (vertical bamboo flute). The suite is comprised of four compositions, each of which will be related and dedicated to one chapter from the Buddhist philosophical treatise, *Treatise of the Middle Way (Mulamadhyamakakarika)* by Nagarjuna, as a thematic link that connects the compositions. The *Mulamadhyamakakarika* is a seminal Buddhist work that sets forth a penetrating view on the Buddhist concept of emptiness, and the realization of its relation to the nature of phenomenal existence as the ultimate "Middle Way." The use of the Buddhist treatise is also a reference to the author's own philosophical and spiritual views that are often integrated into her performance experiences. The four compositions will also be connected through the use of the number five as a structural and compositional element in each piece.

The primary aim of this thesis is to explore and consolidate the author's emerging musical voice through her experiences within these traditions. The integration of diverse musical and aesthetic ideas will be demonstrated through both the compositional aspects as well as through the recorded performance of these pieces by the author.

Dedication

I dedicate this dissertation to my first drum kit instructor, the late Bryan Dennis, who introduced me to the musical drumming of Gene Krupa, Art Blakey, Joe Morello, and others, and who always reminded me that it is more important to be a good musician than to be just a good drummer.

I also dedicate this to Christine Kim, whose friendship, support and editorial assistance was invaluable during this academic process.

Acknowledgments

I wish to thank first and foremost my supervisor, Professor Trichy Sankaran, for his immense support, guidance, patience, and musical wisdom that has made my graduate studies a truly enlightening experience. I also thank Professor Michael Coghlan for his valuable time and academic advice, and to Ms. Tere Tilban-Rios for her administrative assistance.

I am also grateful for the privilege of meeting and learning from graduate instructors David Mott, Casey Sokol, and especially Sherry Johnson, for her valuable guidance and comments on some of my academic writing throughout my graduate program, and for facilitating my involvement with the Canadian Society for Traditional Music.

I would also like to acknowledge the many teachers and mentors whom I have had the honor of learning from throughout my musical journey, who have given me the opportunities to develop my skills, and have inspired me to continue my musical explorations: the late Wong Shun, Kiyoshi Nagata, Aki Takahashi, the late Bryan Dennis, Anthony Michelli, Tam Po Shek, Shu-wing Tang, Kaoru Watanabe, Trichy Sankaran, Alvin Ryuzen Ramos, and many others. I am also indebted to the countless musicians and artists with whom I have crossed paths throughout the years, who have each contributed in their unique way to shaping my musical vocabulary and voice.

Finally, I would like to thank my parents for the life they have given me, and especially to my father, Eddy Chan, for his assistance with the translation of some of the Chinese texts in this thesis.

TABLE OF CONTENTS

Abstract.....	ii
Dedication.....	iii
Acknowledgments.....	iv
Table of Contents.....	vi
List of Figures.....	viii
1. Introduction.....	1
1.1 Japanese <i>taiko</i> drumming and folk music (2000 – present).....	4
1.2 South Indian rhythm studies (2003-2004; 2013-present).....	6
1.3 Learning the Chinese <i>xiao</i> (2007 – present).....	7
1.4 Other experiences and influences.....	8
2. An Overview of Japanese <i>Taiko</i> Drumming.....	12
2.1 <i>Kumi-daiko</i> , the modern tradition of concertized ensemble-drumming.....	12
2.2 Instruments in a <i>kumi-daiko</i> ensemble.....	14
2.3 <i>Kumi-daiko</i> – ritual, practice, and philosophy.....	18
2.4 Future directions.....	20
3. South Indian (Karnatic) Drumming and Rhythmic Theory.....	22
3.1 Brief Historical Background.....	22
3.2 Practical training in Karnatic music: <i>kanjira</i> lessons.....	27

3.3 Music and Devotion in Karnatic Tradition.....	31
4. Learning The Chinese <i>Xiao</i>	34
4.1 Brief overview of the history and development of the xiao.....	34
4.2 Learning the <i>xiao</i>	37
5. Overview of Buddhism and Nagarjuna's <i>Mulamadhyamakakarika</i>	43
5.1 Overview of Gautama Buddha and his teachings.....	43
5.2 Musical practices and the Middle Way.....	48
6. Structure of the Composition.....	50
6.1 The number five.....	50
6.2 Introductory remarks on the composition.....	54
6.3 Part I: Examination of Conditions.....	57
6.4 Part II: Examination of Motion.....	59
6.5 Part III: Examination of Time.....	62
6.6 Part IV: Examination of the Four Noble Truths.....	65
6.7 Performance challenges and notation.....	69
6.8 Future possibilities – variations, score re-mapping, etc.....	69
7. Conclusion.....	72
Bibliography.....	75
Appendix: Score.....	77

List of Figures

Fig. 1 (p.15) – Japanese *miya-daiko* drum

Fig. 2 (p.15) – Japanese *shime-daiko* drum

Figs. 3a & 3b (p. 16) – Japanese *okedo taiko* drums

Fig. 4 (p. 17) - *O-daiko* drummers from the group Kodo

Fig. 5 (p. 24) – Components of a South Indian *tala*

Fig. 6 (p. 25) – Saludi Sapta Talas

Fig. 7 (p. 29) – Six varieties of *Yati* in Karnatic rhythmic theory

Fig. 8 (p. 39) – *Xiao* score, hand-written by Tam Po Shek

Fig 9 (p. 61) – 20-beat *tala* for “Examination of Motion”

Introduction

My major composition is aimed to represent the culmination of my experiences as a performer and student of various musical traditions over the last ten years. After being introduced to Japanese *taiko* drumming in 2000, I have since studied drum kit, Japanese and Chinese flutes, South Indian percussion, digital and electronic media, and navigated through other instruments and styles of music. Although it is a blessing to have had the opportunity to gain multiple perspectives and musical sensibilities through the study of different instruments and musical systems, it would be unfeasible to integrate every element of influence into one composition. Indeed, upon reflection, some experiences have left deeper marks than others in my current musical identity. Japanese *taiko* drumming with its very specific aesthetic, technique, and philosophy has been a constant and significant influence in my life to this day. For the past seven years, I have studied and continue to explore the traditional Chinese vertical flute, the *xiao*, and have integrated it in multi-instrumental performances in dance and theatre projects, presenting its traditional aesthetic and style in modern contexts. Ever since I have been introduced to South Indian music and began formally studying the South Indian *kanjira* with Professor Trichy Sankaran, Karnatic rhythmic principles have become a key source of compositional and performative ideas.

The three musical traditions mentioned above – Japanese *taiko* drumming, Karnatic drumming, and the Chinese *xiao* – will form the musical basis of this compositional suite consisting of four pieces. Although I have experienced these

traditions primarily as a performer, I have also been mindful of compositional and structural features of the repertoire for each instrument, and aim to incorporate these ideas into my pieces. In addition, I have chosen the number five as an overarching structural element that will appear on various levels in each piece. As will be explained in a subsequent chapter, the number five has always carried symbolic significance in ancient musical and cosmological systems such as those of the Indian and Chinese, and have also been of particular interest in my own compositional efforts. The number is also a prominent element in the Karnatic musical system and a significant rhythmic concept used in my *kanjira* lessons with Professor Trichy Sankaran.

My study of Karnatic music, and an increased exposure to the ideologies of Indian music in general, have also fueled my ongoing interest in the connection between music and religion, as Karnatic music is highly devotional in nature, and the origin of music in Indian culture is deeply rooted in cosmological thought. This, in part, sparked the idea of integrating my interest in Buddhism and Buddhist philosophy into this thesis. I have chosen to use the *Mulamadhayamakarikā* (henceforth referred to as the *MK*), “Treatise on the Middle Way,” as a conceptual basis for this composition. Written by Nagarjuna, widely regarded as one of the greatest Buddhist philosophers of all time, the *MK* was his most famous and influential work. What is expounded in the *MK* will be addressed later in the thesis, but suffice to say at this point, the *MK* sets forth, among other things, Nagarjuna's interpretation of the Buddhist principle of emptiness. As the title of the work

suggests, it is an exposition towards a comprehensive understanding of a “Middle Way,” one which holds both philosophical and soteriological repercussions.

As I began composing and writing about the process, the idea of the “Middle Way” began figuring into my thoughts about the nature of the composition itself, and about my own relationship with the various traditions in which I have been trained. I also began to reflect on my attempt in this thesis to combine diverse instruments and musical systems into a coherent set of pieces. In a way, this navigation and negotiation of contrasting traditions and styles can be thought of a personal search for a “musical middle way.” As a composer and performer in today's world, this is no pioneering endeavour; the fusion and exchange of sounds, instruments, techniques, symbols and systems has been taking place for decades. Much has been written about the transnationalization and globalization of music, the phenomenon of “world music,” and the implications of such sociocultural and socio-musical movements on the transformation of music and communities.¹ Upon reading such insightful scholarship, and in light of the Buddhist themes connected to this thesis, I also began to apply the idea of emptiness onto the ways music, and expressive cultures in general, evolve and develop in the world. For what is more “empty” and impermanent than the evolution of music and culture? If music, wherever it is and whoever it is made by, is constantly subject to conditions on so many levels (technical, technological, social, economic, commercial, personal, emotional, etc), what are we to make of all our “attachments” to such concepts as “tradition,” to the

¹ Notable examples include Born and Hesmondhalgh 2000, Frith 1989 (ed.), Guilbault 1997, Keil and Feld 1994, Knudsen 2011, Shelemay 1996 & 2011, Slobin 1992, and Stokes 2004.

dichotomized concepts of East versus West, old versus new, classical versus modern/experimental, cultural openness versus cultural conservatism, etc? I further reflected on the concept of emptiness in the context of the life and symbolism of a single musical instrument, and the modern practice of using it outside of its original cultural setting (what Steve Feld terms “schizophonia”)² - an instrument being “emptied” of some of its cultural connection.

These are some of the questions and curiosities that I hope to explore, but not necessarily answer or solve, through this thesis. Nonetheless, I hope this endeavor to be, first and foremost, one of self-exploration and development. At the same time, I hope it will be a worthy addition to the existing discussion on the processes, motivations, attitudes, and inspirations behind the increasingly common and inevitable convergence of musical cultures across the world.

1.1 Japanese *taiko* drumming and folk music (2000 – present)

The beginning of my professional music training started with Japanese *taiko* drumming. I joined Toronto-based community *taiko* ensemble Isshin Daiko in the fall of 2000 after completing their 10-week workshop. Two years after becoming a member of Isshin Daiko, Kiyoshi Nagata, who co-founded Isshin Daiko, invited me to become a member of his professional ensemble Nagata Shachu (formerly Kiyoshi Nagata Ensemble). I began performing *taiko* professionally from the fall of 2002 until June of 2007, during which time I learned and performed on various kinds of *taiko* drums

² Feld, Steven, and Charles Keil. *Music Grooves*. University of Chicago Press, 1994.

(including the large *O-daiko* and the shoulder-worn *katsugi-daiko*), traditional Japanese percussion instruments such as the *chappa*, a pair of hand-held brass cymbals, and Japanese flute (*shinobue*). I have also composed pieces for the ensemble which were performed and recorded. In 2006, I joined the Japanese folk ensemble Ten Ten, created and directed by Aki Takahashi, a fellow Nagata Shachu member and *shamisen* player and folk singer. Ten Ten was Takahashi's platform to create original compositions and arrangements of folk songs by combining traditional Japanese instruments such as *shamisen*, *taiko*, *shinobue*, and vocals with other acoustic instruments such as guitar, bass, *cajon*, clarinet, and even Indian *sitar*. Through Ten Ten, I continued to develop my interests and skills in multiple instruments, while continuing to learn about the aesthetic and performance features of Japanese folk music.

While living in Hong Kong between 2007 and 2012, I joined a community, all-female taiko group, O-Daiko. In 2010, under the recommendation of the group's founder, Virginia Chu, I applied for and received a Hong Kong Arts Development Council Emerging Artist grant to produce a full-length taiko drumming concert. Based on my relative experience amongst the group members at that time, I assumed the role of artistic director for the concert and became involved in composing new pieces and re-arranging the group's existing repertoire, which at the time included some open-source *taiko* compositions, fragments of exercises that the group found online, and some structural improvisation pieces. The 6-member group performed on March 19, 2011, becoming the first ever locally produced taiko concert in Hong Kong, by its first ever local Japanese

taiko group. After returning to Toronto in 2012, I rejoined both Nagata Shachu and Ten Ten and have since continued to perform, teach, and compose for the *taiko* idiom, and to advance my Japanese flute-playing.

1.2. South Indian rhythm studies (2003-2004; 2013-present)

In contrast to the broad, rhythmic strokes of Japanese *taiko* drumming, I was introduced to a drastically different musical tradition, that of South India, through Professor Trichy Sankaran's undergraduate rhythm course, in which he presented theoretical and practical principles of Karnatic drumming. In addition to being drawn to the beauty and complexity of South Indian drumming through Prof. Sankaran's *solkattu* demonstrations and *mrdangam* performances, I was also impressed with the methodical systematization of rhythmic concepts and the thoroughness of the Karnatic system, which I had not encountered before in other cultures. Furthermore, the applicability of Karnatic rhythmic principles to composition, improvisation, and performance was developed by Prof. Sankaran into a very accessible pedagogy based on the *solkattu* system, which I have found to be widely adaptable and versatile in many musical contexts. Indeed, I have applied such principles in many of my compositions for taiko and electronic music and also in improvisatory performances.

More recently, since January 2013, I have formally began studying the *kanjira* (the South Indian frame drum) with Prof. Sankaran, which has added a more practical

element to my understanding of Karnatic music. In contrast to the physical demands of taiko drumming, studying South Indian music demands a more systematic and mathematical approach to rhythms, and a more rigorous development of one's internal sense of time, or *laya*.

1.3 Learning the Chinese *xiao* (2007 - present)

A third musical experience that has had a major impact on my perception and appreciation of music is learning the *xiao*, a Chinese vertical end-blown flute. The *xiao*, within the modern development of traditional Chinese music, has not gained as much attention or popularity as the *dizi* (transverse bamboo flute), and by contrast, the *xiao*'s Japanese relative, the *shakuhachi*, has received much more attention and global appreciation in the recent decades.

My main instruction on the *xiao* has come from Tam Po-Shek, a *xiao* artist in Hong Kong, and a member of the acclaimed Hong Kong Chinese Orchestra. In addition to being a *xiao* player and maker, he is also a calligrapher, painter, photographer, and practitioner of Chinese Zen Buddhist meditation. He is also a staunch supporter of performing the *xiao* in more intimate contexts, and what he considers more authentic cultural settings amidst the commercially- and orchestrally-oriented Chinese music industry. One of Tam's regular performances is held every Sunday afternoon in a nostalgically designed but modern tea house, whose owner is himself a calligrapher and art aficionado. In addition to taking private *xiao* lessons with him, it was predominantly

during these afternoons that I saw Mr Tam play and speak about the *xiao*, which is usually accompanied by two or three of his Chinese Orchestra colleagues on various instruments including the *sheng* (mouth-blown free reed instrument with vertical pipes), *guzheng* (plucked zither), *pipa* (lute), and sometimes *erhu* (two-stringed bowed instrument). Occasionally, he would invite principal players from the Orchestra for a featured performance on their instrument (such as the *pipa* or *sanshin*) with performances of virtuosic solo pieces. I have also seen Tam perform with a local *shakuhachi* player, an instrumental collaboration which I have not yet seen anywhere else.

Just as important as the performances on Sundays were the conversations between Tam and the tea house owner, Mr Yip, that interweaved throughout the performances each week. Mr Tam and Mr Yip often offered their views and opinions on the aesthetic values and evolution of traditional Chinese music, and I learned as much about playing *xiao* from these dialogues as from actual music lessons.

1.4 Other Experiences and Influences

Between the periods of instrumental training mentioned above, I have also participated throughout the years in other musical styles and settings, all of which have had lasting and expansive influences on my performance style, composition, and appreciation for music. Because of my growing interest in drumming and rhythmic studies through *taiko*, I decided to take drum kit lessons to learn about Western drumming techniques, and performed for three years (2003-2006) in a rock trio, The Clinks. The

various members of a *taiko* ensemble, in a way, resembles the different limbs of a kit drummer, and there is an additional semblance of groove-building and soloing in both *taiko* ensemble-playing and in kit-playing. Playing the drum kit thus deepened my sense of structuring multi-part grooves, in addition to the technical skill gained from snare sticking and independence exercises.

Another important musical influence early on, even before my exposure to Japanese *taiko*, was electronic music, including such styles as minimal techno, electro, trip-hop, and the music of popular artists such as Bjork, the Pet Shop Boys, and Kraftwerk. I would also include in this list Philip Glass and Steve Reich, whose particular realizations of minimalism and use of repetition and gradual development have also left deep impressions on me.

While living in Hong Kong between 2007 and 2012, I performed with an experimental improv group called Brown Note Collective. I often met with this diverse and eclectic group of artists for informal free-jam sessions, and our performances included site-specific live music performances, and free improvisation with dancers, vocalists, and actors. Through the Brown Note Collective, I gained a deeper appreciation and insight about improvisation and the experimental spirit of music-making, and all the jam sessions and performances have helped redefine and expand the musical boundaries that were known to me up to that point.

Finally, before returning to Toronto, I was hired to perform as a live multi-instrumentalist for a contemporary minimalist production of the Shakespeare's "Titus

Andronicus,” directed by an award-winning director named Shu-Wing Tang. In the production, I used Chinese *xiao*, Japanese *shinobue*, mini-cajon, *erhu*, and metal and paper objects for sound effects, and performed improvised music throughout the play based on pre-determined cues. “Titus Andronicus” gave me an opportunity to work in a live theatre environment for the first time, and to participate in international arts festivals in Singapore, London, Poland, Norway, and Beijing. On a musical level, it was also my first project as a solo multi-instrumentalist, a challenging yet immensely rewarding and confidence-building position, which allowed me for the first time to explore and develop my capabilities (and limits) as a solo, multi-instrumental performer.

To conclude this chapter, this overview of my musical training is intended to substantiate the musical, conceptual, and aesthetic choices of my compositional suite. It will be shown in the next chapters how the three major musical influences - *taiko* drumming, Karnatic drumming, and Chinese *xiao* – occupy different areas of focus in my compositions. Japanese *taiko* has been most formative in my technical development as a drummer and for my understanding of multi-part percussion music, and offered me exposure to the unique aesthetics and forms of traditional Japanese music. South Indian percussion training offers a contrasting yet complementary perspective on rhythmic organization, vocal pedagogy, and composition, and learning the drum kit added further technical depth and enhanced my sense and perception of groove. Listening to various styles of electronic music further shaped my compositional preferences towards

minimalistic but layered rhythmic structure, gradual development, and the extensive use of repetition.

The next three chapters aim to provide a more concise conceptual and historical context behind these traditions by which I have been influenced.

CHAPTER 2 – An overview of Japanese taiko drumming

2.1 Kumi-daiko, the modern tradition of concertized ensemble-drumming

Although the use of drums have been documented to have existed in Japan for close to two thousand years and appears in many cultural contexts (folk rituals, religious ceremonies, court performances, classical arts),³ the tradition of concertized, ensemble taiko drumming, known as *kumi-daiko*,⁴ is a relatively recent development, and can be traced back to the early fifties. The “inventor” of *kumi-daiko* is credited to Grandmaster Oguchi Daihachi,⁵ a jazz drummer and founder of the first ever modern *kumi-daiko* group, Osuwa Daiko. As the legend goes, in 1951, Daihachi was presented with an old sheet of taiko music found in an old warehouse, and was asked to interpret and play it for the Osuwa Shrine, the major Shinto shrine of Nagasaki, Japan. The rhythm on the sheet was relatively simple and Daihachi was inspired to perform it with a group of drummers, dividing the music into various parts, functioning like a drum set where each player was one unit of a kit, each playing a different pattern, and the archetype for the *kumi-daiko* ensemble was born.

Early *kumi-daiko* groups in Japan included Yushima Tenjin Sukeroku Daiko (founded 1959), Za Ondekoza (founded 1969), and the San Francisco Taiko Dojo, the first *taiko* group in North America founded in 1968 by Grandmaster Seiichi Tanaka, who was an early apprentice of Daihachi. But perhaps the most internationally well-known

³ Heidi Varian, *The Way of Taiko* (Berkeley: Stone Bridge Press, 2005), 16.

⁴ “*daiko*” and “*taiko*” refer to the same Japanese term 太鼓 meaning “drum,” and the two spellings are used interchangeably

⁵ Varian, 27.

taiko group today is Kodo, formed in 1981 by former members of Za Ondekoza. While each of the groups mentioned above has set significant stylistic standards for later groups, it is the well-documented style, aesthetic, and philosophy first established by Za Ondekoza, and later adopted and refined by Kodo, that has iconicized *taiko* drumming as an intensely physical and visually imposing art form, requiring the highest levels of physical stamina and discipline.

The worldwide development of *kumi-daiko* is complex and diverse and deserves its very own ethnography. Types of groups range from community-based and school-affiliated to professional, world-touring ensembles. Some perform primarily on *taiko* and Japanese instruments, such as Toronto-based Nagata Shachu,⁶ and many others, like California-based On Ensemble, combine *taiko* with instruments from other traditions including drum kit, didjeridoo, and even turntables.⁷ In Toronto alone, there are at least five *taiko* groups representing a diverse range in style, skill level, and ideology. These include Isshin Daiko,⁸ Yakudo⁹, Arashido¹⁰, Inner Truth Taiko,¹¹ and Sammy Cheng Taiko Drumming group¹², which integrates *taiko* with Cheng's Chinese lion dance troupe. Almost every one of these groups offer *taiko* classes and workshops, and all of them perform regularly at community, festival, and concert events across Ontario, attesting to the popularity of this musical form in Toronto.

⁶ [Http://www.nagatashachu.com](http://www.nagatashachu.com)

⁷ [Http://onensemble.org/](http://onensemble.org/)

⁸ [Http://www.issindaiko.ca](http://www.issindaiko.ca)

⁹ [Http://www.yakudo.com](http://www.yakudo.com)

¹⁰ [Http://www.arashido-taiko.com](http://www.arashido-taiko.com)

¹¹ [Http://www.innertruthtaiko.com](http://www.innertruthtaiko.com)

¹² [Http://www.sammychengtorontoliondance.com](http://www.sammychengtorontoliondance.com)

2.2 Instruments in a *kumi-daiko* ensemble

Despite the vast variety in style, structure, repertoire, and credo, there are basic instruments that can be found in all *kumi-daiko* groups. This is based on my experience over the last ten years as members of three different *taiko* groups, along with encounters and meetings with numerous other *taiko* ensembles through workshops, conferences, personal and professional conversations, and information provided by groups' and *taiko* manufacturers' websites.

The most common drum found in a *taiko* group is the *miya-daiko* (“shrine drum”), also known as the *nagado-daiko* (Fig. 1), a two-headed drum whose body is traditionally made from a single piece of wood, with its heads secured permanently on both sides with large metal tacks. It is played with large wooden drum sticks called *bachi*, a term that refers to *taiko* drum sticks in general. The *miya* is commonly played in an upright standing position or placed diagonally on a stand and played on one side, but it can also be found placed horizontally close to the ground and played on both sides by performers in a low, wide stance, as in the *miyake* style originating from island of Miyake and made famous by Kodo. The *miya* is used to play both main “solo” parts as well as supporting base patterns called *jiuchi*.

The next most commonly found drum in a *kumi-daiko* group is the *shime-daiko* (Fig. 2), a smaller, high-pitched drum reminiscent in size and function of a Western snare drum. Traditionally, the two heads are held together and tightened by rope, but today, many groups use *shime* that are tightened with a system of metal bolts and nuts. The

shime is played with smaller *bachi* and therefore allows for more technically intricate and dense patterns. Having said that, its high-pitched tone is equally effective for prominent solo parts as well as for *jiuchi* patterns. The *miya* and *shime* together essentially form the basic low- and high-pitched sounds in a *taiko* ensemble from which endless pieces have been developed, and certainly, the far-reaching consequences of Oguchi Daihachi's conception of *kumi-daiko* functioning like a jazz drum kit is reflected in the phenomenal variety of *taiko* repertoire today.



Fig. 1 – *miya-daiko*



Fig. 2 – *shime-daiko* (modern design)

Another very common drum found in *taiko* ensembles is the versatile, rope-tied barrel drum, the *okedo-daiko* (Figs. 3a & 3b), which traditionally uses horsehide for drum head material, compared to cowhide that is used for *miya* and *shime daiko*, thereby providing a different sonic texture within a *taiko* ensemble. Because barrel drums are relatively easier to make than *miya-daiko*, *okedo* drums can be found in a wide range of

sizes, from sizes that allow them to be worn on the shoulder, to massive *o-daiko* versions that are played by more than one performer and can be found in festivals and *taiko* competitions in Japan.



Fig. 3a *okedo* drum



Fig. 3b large *okedo* drums at Japanese folk festival

Today's *kumi-daiko* ensembles are often supported by other traditional Japanese percussion instruments borrowed from folk and classical traditions. These include the *atari-kane* (a small, thick brass bowl with a flat bottom played by a mallet made of deer antler), *chappa* (hand-held brass cymbals), *hyoshigi* (rectangular pair of woodblocks), and *hyotan* (gourd shakers). Nagata Shachu also incorporates the Okinawan shoulder drum *eisa-daiko*, and will also use a lighter, quieter *shime-daiko* traditionally used in *kabuki* theatre to accompany pieces with the 3-stringed *shamisen*. Melodic instruments such as the transverse bamboo flute *shinobue* or the vertical *shakuhachi* are also used often to provide melodic accompaniment. As mentioned, *taiko* groups today often

integrate non-Japanese instruments into their performances, such as snare drum, Western cymbals, *claves*, *shekere*, egg shakers, and even *djembe*.

But perhaps the most iconic image of Japanese *taiko* in the minds of the general public, and one that best embodies both the visceral and spiritual discipline that has become a trademark of concertized *taiko* performances today, is that of the *o-daiko*, the largest kind of *taiko* in an ensemble (Fig. 4). The rolling out of an ensemble's largest drum, raised horizontally on a wooden stand, with one of its skins directly facing the audience, and the dramatic silence that often precedes the grueling physical display that is expected of its solo player, constitute, for many players, groups, and *taiko* enthusiasts, the climax of a *taiko* concert.¹³



Fig. 4 *O-daiko* drummers from the group Kodo

¹³ Bender, Shawn, "Drumming from Screen to Stage: Ondekoza's *Ōdaiko* and the Reimagining of Japanese Taiko," *The Journal of Asian Studies*, no.69 (2010): 843-867

2.3 *Kumi-daiko* – ritual, practice, and philosophy

Although the *taiko* drum has existed in Japan for millenia and has been used in many kinds of social and artistic contexts, I would argue that *kumi-daiko* is first and foremost a contemporary art form that appropriates musical and aesthetic elements from Japanese folk and classical music as well as from non-Japanese idioms such as jazz and other “world” drumming traditions such as African and Afro-Cuban styles. As Bender notes, “with repertoires and choreography that borrow liberally from contemporary patterns, few taiko ensembles claim to be passing on particular 'folk' traditions. Instead, contemporary taiko ensembles look to the future, emphasizing creativity, dynamism, and innovation, without ignoring what the past offers in the way of musical or visual inspiration.”¹⁴

But despite obvious Western and multicultural influences on the music, pedagogy, and compositional practices of the *kumi-daiko* drumming tradition, most *taiko* groups insist on maintaining certain “traditional” philosophies and practices. One such practice is oral teaching and the use of *kuchishoga*, a loosely codified system of syllables for teaching *taiko* drumming patterns. I say “loosely codified” because although there are a number of customarily used syllables for specific kinds of *taiko* or percussion sounds, not every group uses all these syllables in their teaching. In my experience, I have heard the syllables “ten” and “teke” used to teach *shime-daiko* patterns, and “chan” and “chiki” for rhythms played on the *atari-gane*. But Nagata Shachu and Isshin Daiko, for example, do

¹⁴ Ibid., 844.

not generally use these syllables, and instead use “don,” “kon,” and “doko” for teaching patterns on both *miya-daiko* and *shime-daiko*.

One of the more distinctive elements of *taiko* drumming that I have experienced as compared to other drumming styles and percussive traditions is its strict adherence to physical and aesthetic formalities – how one sits and stands during performance, how one folds a costume, and how we formally begin and end a *taiko* practice, i.e., by bowing and exchanging verbal greetings.

One of the more apparent formalities in *taiko* is the very technique of hitting the drum. Audiences often describe *taiko* drumming as choreography because of the exaggerated movement of the arms and the distinctive full-body engagement required in playing the instrument. The following description from Shawn Bender conveys not only the importance of physical discipline and conditioning, but also the meticulous awareness of each element of the technique, and the intention of the movement and its connection to the natural environment.

Producing a good sound meant driving the compression through to the bottom of the drum by using the bottom of the hand. But using hands, arms, and shoulders only – the top of the body – also resulted in a weak sound. Building momentum in hands, arms, and shoulders meant twisting the hips and torso for power. And, ultimately, power in the hips and torso depended on strong legs and feet – the bottom of the body. Thus, power began in the feet, firmly planted on the ground, moved up through the legs and torso, rushed through the arms, and burst out into the drum stroke. *Energy travels in a circle, from the earth and back again, mimicking the cycle of creation and destruction in the production of sound and its dissipation. Form and movement, then, were of utmost importance.* The wall of floor-to-ceiling mirrors, found in every practice room I observed, symbolized this emphasis on the bodily form.¹⁵

¹⁵ Bender, Shawn, “Of Roots and Race: Discourses of Body and Place in Japanese 'Taiko' Drumming,” *Social Science Japan Journal*, Vol. 8, No. 2 (2005), 200.

In my own experience within Nagata Shachu, the taiko practice itself, from the moment it begins to the last hit of the drum, is an exercise in discipline and ritual. This is perhaps as much a reflection of Nagata's own preference for order and routine as it is a perpetuation of the practices learned from his formal training in Japan with the pioneering group, Kodo.

In Nagata Shachu, practice begins with all members present, standing in a circle, barefoot, and changed into practice clothing. Nagata and the group exchange the greeting “onegaishimasu,” meaning “please” or “I beg of you [to begin practice],” accompanied with a bow. This practice is in accordance with what William Malm observes in a traditional *kabuki* drum lesson, “The specific forms of bows and verbal expressions that are exchanged are adumbrations of a series of codified gestures and activities that are essential to the goals of drumming. It can be said that, in Japanese music in general, 'it is not only what you do but also how you do it.'”¹⁶

2.4 Future directions

In Linda Fujie's illuminating discussion on the practice of Japanese taiko drumming on a concert stage, she asks the question: “How should cultures best present themselves outside of their usual context (or contexts)?”¹⁷ As relevant and continuously noteworthy this questions remains, I would like to reframe the question to: how should *individual artists* who work and live in fundamentally culturally pluralistic environments

¹⁶ Malm, William P., *Six Hidden Views of Japanese Music* (University of California Press, 1986), 26.

¹⁷ Fujie, Linda, “Japanese Taiko Drumming in International Performance: Converging Musical Ideas in the Search for Success on Stage,” *The World of Music*, Vol. 43, No. 2/3 (2001), 93.

present themselves? Because I feel, in the end, it is not entire cultures which present themselves, but individuals and groups who bear and present certain aspects of their culture and cultures. In my experience, Nagata Shachu has been such a group, which does not so much represent the culture of Japan as it does the individual preferences and influences of its leader and members. By extension, my compositional efforts can also be defined and identified as representative of very specific elements of the cultures in which I have been immersed, whether it is my own ethnic Chinese roots, or my training in Japanese and Indian musical traditions.

This brief overview of Japanese taiko drumming hopes to serve as a reference to the compositional choices that I have made in my compositional suite, which will be detailed in Chapter 6.

CHAPTER 3. South Indian (Karnatic) Drumming and Rhythm Theory

My aim in this chapter is to present a brief overview of the South Indian rhythmic system and its main features, and to particularly focus on those aspects of this rich and venerable tradition that are relevant to the elements in my compositional suite. Focus will be placed on concepts such as *tala*, *laya*, *korvai*, and their culture-specific uses, and certain aesthetic and practical aspects which I have learned through my *kanjira* lessons with Professor Trichy Sankaran.

3.1 Brief Historical Background

Karnatic music, the classical tradition of South India, is generally regarded to have emerged out of the bifurcation of India into the North and South in the 13th Century. While music in Northern India was transformed through the permeation of Islamic culture and evolved into what is known as the Hindustani tradition, music in the Southern provinces of Karnataka, Andhra Pradesh, Tamil Nadu, and Kerala developed, relatively undisturbed by external influences, into the South Indian classical tradition known today as Karnatic music. Although the repertoire, instruments, and aesthetic of Hindustani and Karnatic differ greatly, both traditions are rooted in the melodic *raga* system and the rhythmic system of *tala*. For the purposes of this discussion, we will focus on the latter.

Music, whether melodic or percussive, metered or un-metered, structured or free, unfold in time. And it is the *tala* system which provides the framework for the

organization of musical time in Karnatic music, and has been expressed by Vidya Shankar as “the yardstick of measurement of time in music.”¹⁸ *Tala* is a term that encompasses both general and specific definitions in the Indian rhythmic system. In a general sense, *tala* refers to all aspects related to rhythm. In Bharata's *Natya Sastra* (c. 200 BCE – 200 AD), the definitive Indian treatise on the performing arts, one entire chapter is devoted to the concept of *tala*, and in the earliest commentary of the *Natya Sastra*, the *Abhinababharati* by Abhinavagupta, the meaning of *tala* is further articulated as a principle of equilibrium in both musical and cosmological contexts:

[*T*]ala, of all the musical dimensions, has been assigned the major responsibility for coordinating, integrating, and maintaining control over all aspects of the performance. The correct performance of ritual is obviously no small matter, and the benefits of *tala* were intended to go far beyond the admitted pleasures of musical rhythm. And similarly, the equilibrium that Abhinavagupta praises, visualized in the form of Siva's celebrated pose as Lord of the Dance (Nataraja), is something more than a state of simple physical balance or repose; it is the state of cosmic equilibrium precariously maintained in the midst of the continuous creation, preservation, and destruction of the world, its forms, and its creatures.¹⁹

In a more specific context, *tala* refers to a cycle of traditionally determined rhythmic units manifested through traditionally prescribed hand gestures. The *tala* forms the temporal bedrock of Karnatic music, and the ten vital elements of *tala* theory known as the Tala Dasa Pranas further illustrate the emphasis placed on the relationships of temporal events to the *tala* cycle. The concept of tempo and flow of time, *laya*, is perceived and described in rational and relational terms – double speed, medium speed,

¹⁸ Shankar, Vidya, *Aesthetic and Scientific Values in Carnatic Music Vol. II* (Chennai: Parampara, 2005), 2.

¹⁹ Rowell, Lewis, *Music and Musical Thought in Early India* (India: Munshiram Manoharlal Publishers, 1992), 188-9.

half speed, or 4:2:1 ratio. The process of lengthening a *tala* also follows this principle (where each beat of the *tala* is doubled or quadrupled) and is encapsulated in the principle of *kalai*. Importance is also given to the various methods of rhythmic manipulation including augmentation and diminution (*prastara*), and sequencing patterns according to geometric shapes (*yati*).

The temporal world of Karnatic music can be thought of as a modular system of building blocks that allow almost infinite combinations and permutations of patterns into phrases, sequences and compositions of varying lengths. The main *tala* system used today, the Saludi Sapta Talas, is also modular, comprising 35 distinct *talas* based on traditionally determined combinations of three units, the *drutam*, *anudrutam*, and *laghu* (Fig. 5).

Example 3, Tisra-jati Jhampa Tala

Angas	<i>laghu</i>			<i>anudrutam</i>	<i>drutam</i>	
Aksharas	1	2	3	4	15	6
Counting	clap	(2)	(3)	clap	clap	wave

Fig. 5 Components of a South Indian *tala* (from Sankaran 1994: 15)

Seven traditionally determined combinations of these units, combined with the variable length of the *laghu* according to the 5 *jati* classifications gives a total of 35 *talas* (Fig. 6). Besides these, a set of *talas* from folk traditions known as the *chapu* *talas* are commonly used, as well as *talas* from other traditions, such as the 21-beat Tirrupugazh *tala*.²⁰

²⁰ Sankaran, Trichy, "Rhythmic Analysis of Some Selected Tiruppugazh Songs," *The Journal of the Music Academy*, vol. LX (1989): 92-102.

The 35 Talas of the Sapta (Seven) Tala System

Seven Talas	Jathis	Anga Structure	Aksharas
Dhruva Tala	Chatusra	I ⁴ O I ⁴ I ⁴	14
	Tisra	I ³ O I ³ I ³	11
	Misra	I ² O I ² I ²	23
	Khanda	I ² O I ² I ²	17
	Sankirna	I ² O I ² I ²	29
Matya Tala	Chatusra	I ⁴ O I ⁴	10
	Tisra	I ³ O I ³	8
	Misra	I ² O I ²	16
	Khanda	I ² O I ²	12
	Sankirna	I ² O I ²	20
Rupaka Tala	Chatusra	O I ⁴	6
	Tisra	O I ³	5
	Misra	O I ²	9
	Khanda	O I ²	7
	Sankirna	O I ²	11
Triputa Tala	Chatusra	I ⁴ O O	8
	Tisra	I ³ O O	7
	Misra	I ² O O	11
	Khanda	I ² O O	9
	Sankirna	I ² O O	13
Jhampa Tala	Chatusra	I ⁴ U O	7
	Tisra	I ³ U O	6
	Misra	I ² U O	10
	Khanda	I ² U O	8
	Sankirna	I ² U O	12
Ata Tala	Chatusra	I ⁴ I ⁴ O O	12
	Tisra	I ³ I ³ O O	10
	Misra	I ² I ² O O	18
	Khanda	I ² I ² O O	14
	Sankirna	I ² I ² O O	22
Eka Tala	Chatusra	I ⁴	4
	Tisra	I ³	3
	Misra	I ²	7
	Khanda	I ²	5
	Sankirna	I ²	9

Fig. 6 The Sapta Saludi Talas (from Sankaran 1994: 38)

Sam, the first beat of the *tala*, is another important concept for understanding the structure and aesthetic of Karnatic rhythm, and is a significant reference point to which compositions and patterns relate. As the major concept in one of the vital elements of Karnatic rhythmic theory, *graha*, literally meaning “home,” *sam* is both a commencement (of a composition) and a return. In the context of the theoretical aesthetic of Karnatic rhythm and of rhythm training, compositions and rhythmic patterns must end on *sam*, to signify a return, both musically and philosophically, to home. From a practical perspective, however, not every composition actually begins and ends on *sam*, and for many compositions within the Karnatic repertoire, the concept of *eduppu* is used. *Eduppu*, meaning “focal point,” is the starting position of a piece that may be before or after *sam*, and is the point towards which cadences and endings are also directed.²¹

The Karnatic *tala* is both a *keeper* and a *marker* of time. As a time-keeper, *tala* is intimately connected to the aforementioned idea of *laya*. Maintaining a consistent tempo and sharp awareness to the temporal flow are essential for both the *tala* keeper and the soloist. As *mrdangam* maestro Trichy Sankaran writes: “The frequent displays of rhythmic imagination and versatility heard within a performance derive both stability and tension from a perpetual rhythmic grid with the recurring *tala* cycle. *Laya*, in the sense of an orderly flow of rhythm, pervades Indian music in all its aspect, and...is given expression in all forms of Indian philosophy.”²²

²¹ Trichy Sankaran, personal communication, March 27, 2014.

²² Sankaran, Trichy, *The Rhythmic Principles and Practice of South Indian Drumming* (Toronto: Lalith Publishers, 1994), 25.

The *tala* also acts as a time *marker* through its *angas*, the modular components of varying beats that make up the *tala*. For example, one of the most commonly used *talas*, the 8-beat *adi tala*, is divided into 3 groupings of 4 beats, 2 beats, and 2 beats, and is marked as such by traditionally prescribed hand gestures. Due to the asymmetric way in which the 8 beats are divided, the particular time-marking of *adi tala* determines the way in which melodic and percussive solos are composed or improvised. The *tala* as a time-marker is thus highly important to the overall flow of a piece, and to a performer's mental orientation of the rhythmic framework.

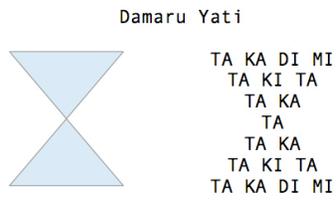
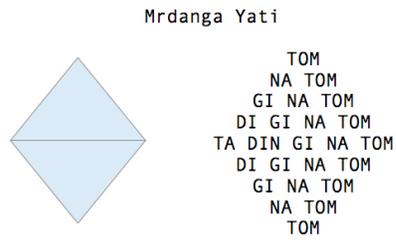
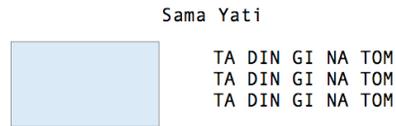
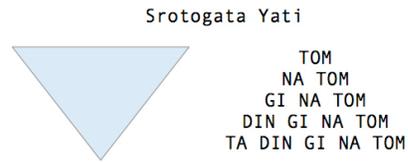
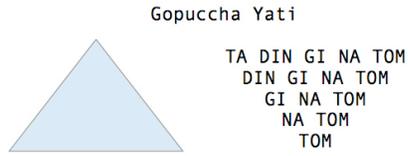
The Karnatic *tala*, as both time-keeper and time-marker, can be considered analogous to an *ostinato* in other styles of music such as the *clave* of Afro-Cuban music or a bell pattern of African drumming. But rather than being just one rhythmic element or layer among others like the *ostinato*, the *tala* serves as the main time referent and rhythmical frame for a composition and the patterns within it. In its culture-specific context, then, it is more than just a musical layer, but the whole temporal foundation of every composition and musical idea.

3.2 Practical training in Karnatic drumming: *kanjira* lessons

The Karnatic tradition has remained primarily an oral tradition from its inception to the present day, and the method of the oral transmission of rhythm is known as *solkattu*. No music or musical tradition can be fully understood without some practical, performative experience from the tradition itself, and the application of the theoretical

principles outlined above can perhaps best be illustrated through a description of some of my experiences in learning the *kanjira* from Professor Trichy Sankaran through the use of the *solkattu* method.

One of the main tools for learning Karnatic rhythms on the *kanjira* thus far has been the *korvai*, a common cadential form consisting of various phrase structures arranged in sequential order following traditionally used geometric shapes (*yati*) representing the principles of reduction and expansion (Fig. 7). A *korvai* is initially learned through the oral recitation of its rhythms in *solkattu* while internally or physically keeping *tala*. The components of a *korvai* usually (but not invariably) include a phrase that becomes reduced (or expanded) with each subsequent repetition, and another phrase, known as the *mora*, that is repeated three times (isometrically, or without reduction) at the end. Within the *korvai*, one must be familiar with the phrase that is being reduced or expanded and the exact points within it where it is reduced. It is equally important to internalize the starting point of the *korvai* in relation to the *tala*. As mentioned above, all patterns and compositions must end on *sam*, the first beat of the *tala*, and thus depending on the number of beats that comprise the *korvai*, the sequence may (and often do) begin in the middle of a *tala*, or even between a beat in the *tala*. *Korvais* can also be practiced in *trikalam*, or three speeds, i.e., half-speed, medium speed, double speed, as well as in various beat subdivisions (*nadai*).



Vishama Yati (Random patterns of different lengths that do not follow any discernible order)

Fig. 7 Six varieties of *Yati* in Karnatic rhythmic theory

The study and practice of the *korvai* is an invaluable tool for many areas of rhythmic development. It demands a mathematically precise knowledge of the length of rhythmic patterns so that one can know where to begin a *korvai* and how to incorporate it into an improvised solo, for example. It also allows for the systematic development of rhythmic vocabulary for composition and improvisation through familiarity with combinations and permutations of patterns of varying lengths. And it has been the analysis and practice of *korvais* that has inspired many aspects of my compositional suite, in particular the first piece, “Examination of Conditions,” which features a *kanjira* solo, and the second piece, “Examination of Motion,” which applies the idea of permutation and combination on the level of the meter, by alternating a 20-beat cycle between groupings of 5s and groupings of 4s.

But apart from the mental musical skills to be gained from such exercises, no other form of learning can replace the experience of a one-on-one music lesson from a master of the tradition. The opportunity of observing the teacher's mannerisms, his rendering of the exercises, and assimilating his technique and sense of *laya* through playing the exercises together, are all invaluable aspects of the teacher-student learning experience that can enhance one's own musical cultivation in both perceptible and subtle ways.

3.3 Music and devotion in the Karnatic tradition

As the music of both North and South India originated from the sacred and highly ritualized Vedic chants, Karnatic music is essentially devotional in nature. Temporal and melodic units of music are conceived to reflect the order of the cosmos and the ideals of Hindu deities; songs are composed and performed in the worship and adulation of gods. In addition, the symbolism and significance of certain numbers figure prominently across Indian music, religion, and visual art, such as traidic (3), quadratic (4) and pendatic (5) structures.²³ The origin of music itself is mythologized as an emanation from the acts of the most powerful of Hindu deities and their offspring and incarnations: Siva and his consort Parvati, Krishna and Rama, incarnations of Vishnu, and many others.²⁴ The act of making music is considered not only as a form of entertainment, but as one of the legitimate paths towards spiritual salvation and union with the Absolute.

Among the pioneering figures of Karnatic music are Purandaradasa (1484-1564), considered the “grandfather of Karnatic music,” and the Karnatic Trinity of the 18th Century, Thyagaraja, Muthuswami Dikshitar, and Syama Sastri, who ushered in a new era in the tradition through their prolific output of compositions and establishment of new musical and aesthetic conventions.²⁵ All of these composers are regarded as spiritual as well as musical men, and the praises and reverence bestowed on them are as much for their musical gifts as they are for their spiritual devotion. Dr Indira Srinivasan provides

²³ Knipe, David M., “One Fire, Three Fires, Five Fires: Vedic Symbols in Transition,” *History of Religions*, vol. 12, no. 1 (1972): 28-41, accessed June 16, 2013. <http://www.jstor.org/stable/1061828>.

²⁴ Sankaran 1994: 3-4

²⁵ *Ibid.*.,10

an apt analogy for the relationship between music and philosophical thought in Indian music: “‘Alike twins’ sometimes are born entangled with each other, so that one cannot be separated from each other at times, [so too] our Music and the philosophical thoughts in it, are also entangled with each other, so that one cannot be separated from the other at times.”²⁶ And Lewis Rowell, in his usual eloquent and penetrating way, writes that “‘formalist theories of musical meaning violate the premises of Indian art: meaning in Indian music is referential, and what it refers to is emotion. The being of music is symbolic: the musical substance is the illusion, shadow, or reflection of the fundamental illusion. Musical knowledge is the knowledge of what the music represents.”²⁷

It may be worth noting at this point that Buddhism also originated from India, and the cosmological framework of Buddhism is rooted in many elements found in the Hindu world view. Notions such as the cyclical nature of existence, karma, reincarnation and rebirth, spiritual salvation through meditation - these themes and their variations laid the foundation of Buddhist practice. As a result, my involvement in Karnatic music often reminds me of the Buddhist world view and many principles to which I adhere. It is also one of the reasons why I have chosen to incorporate a Buddhist philosophical text into this major composition. Below, Lewis Rowell describes the depth with which music is regarded in early Indian thought, but much of this description is also consistent with Buddhist thinking:

²⁶ Srinivasan, Indira, *Philosophical Thoughts in Indian Music* (Chennai: Om International Publication, 2003), 8.

²⁷ Rowell, Lewis, *Thinking About Music: An Introduction to the Philosophy of Music* (U.S.A.: University of Massachusetts Press, 1983), 206-7.

The flux of music represents the flux of all things, the continuous process of creation and dissolution, and the sportive play (*lila*) of forms that we interpret as external reality. But all of this is illusion (*maya*). By tapping the inner source of pure sound and fixed absorption in the musical process, both performer and listener can escape their attachments to material things and attain the condition of *moksha* – liberation...from the perspective of Asia, musical sound is not something external, as when one sits down at a piano and activates a sound-producing mechanism. It is something internal to be brought forth, a process to which one can become attuned – ultimately it is an identification.²⁸

Chapter 5 will deal in more depth the main principles of Buddhism, and the interpretation of some of its fundamental doctrines by the Buddhist philosopher Nagarjuna. The next chapter outlines the third major field of musical training by which I have been influenced: playing the Chinese vertical bamboo flute, the *xiao*.

²⁸ Ibid. 209

CHAPTER 4 – Learning The Chinese *Xiao*

4.1 Brief overview of the history and development of the Chinese *xiao*

The origin of the Chinese flute can be traced back almost 9000 years, to the primitive bone flute (*gudi*) and bone whistles found in early neolithic tombs in central China.²⁹ Throughout the dynasties, there appeared both horizontally- and vertically-blown flutes of varying sizes, dimensions, and materials, known by a variety of names and archaic characters, many of which are no longer in use today. Today, the most popular and widely known Chinese flute is arguably the horizontally-blown *dizi*, known for its distinct buzzing tone produced by a thin piece of rice paper covering a hole near the middle of the flute. Its vertically-blown sibling, the *xiao*, although still used today, is considerably less popular, perhaps because of its relatively softer tone. Even its cousin, the Japanese *shakuhachi*, has enjoyed more global appreciation and success in recent years than the *xiao*.

The flute in China has always figured prominently in art and poetry throughout the dynasties. The sound of the flute has always been depicted with vivid imagery and associations with natural elements and mythological creatures. The legendary Tang dynasty poet Li Bai associated the *dizi* and the *xiao* with the mythological dragon and phoenix respectively: “The dragon hums with joy emerging from water on hearing the sound of the flute / the phoenix aloft flies down to where the *xiao* begins to sound.”³⁰

²⁹ Lin, Ke-Ren, *The History of the Chinese Flute* (Shanghai: Shanghai Jiao Tong University Press, 2009), 12.

³⁰ “簫笛同源：橫吹笛子豎吹簫,” <http://big5.huaxia.com/zhwh/wszs/2011/04/2362647.html>, accessed Feb 23, 2014. Translation of passage by Eddy Chan.

Even a contemporary work such as Lin Ke-Ren's *History of the Chinese Flute* opens one of its chapters with the following imaginative and poetic description:

A flute is a round piece of bamboo, with round holes on it. When viewed from the ends, a flute is also round. The roundness of the flute symbolizes geniality and harmony.

Through the human breath, the flute causes the resonance of nature and emits a uniquely wonderful sound. Its simplicity in structure and playing makes it a popular musical instrument for people young and old.

The melancholy sound of the flute tells the sorrow and happiness of humans, revisits love stories that had long gone, records many a changing fate of ups and downs, and contains the sadness of parting and the joy of reunion of ordinary people.

The flutes of China have a long history of evolution, dating back to as long as eight thousand years.³¹

Compared to the development and popularity of the transverse *dizi*, the vertically-blown *xiao* (also known as the *dongxiao*), seems to have had a very different course of development. Unlike the Japanese *shakuhachi*, which established itself as an iconic instrument of Japanese culture and music, the *xiao* has remained relatively unpopular and almost left behind in the development of Chinese traditional music, and does not have nearly the status of the *shakuhachi* or *dizi*. Compared to the number of famous performers and concerts of the *dizi*, there are relatively few well-known *xiao* artists in the world today, although the instrument can still be found in Cantonese opera orchestras, Taiwanese *nanguan* music, and through individual specialists such as my teacher, Tam Po Shek, or Taiwanese player and *xiao*-maker Liao Jin-Dong, whose website,

³¹ Lin 2009, 1. Translation by Eddy Chan and the author.

www.donsiau.net, is perhaps one of the most comprehensive online resources on the *xiao*.

Because of its obscurity in even its native China, there is a dearth of English texts on the *xiao*. Again, compared to the amount of published English material available for the Japanese *shakuhachi* and the number of non-Japanese individuals who study it, I have yet to find a single English instruction book for the *xiao*,³² although there are at least two English instruction books for the *dizi*.³³ Most online English articles on the *xiao* offer very cursory description of the instrument, that it is an ancient Chinese bamboo flute, and usually highlight its “soft, mellow tone,” and that it is often performed with the 7-string *guqin*. The textbook mentioned above, Lin Ke-Ren's *The History of the Chinese Flute* (*Zhong Guo Di Xiao Shi*, 中國笛簫史), combines the history of both the *dizi* and *xiao*, and this is implied in the very title of the book. To be fair, the terms *di* and *xiao*, and the actual instruments as they appear today, did not evolve until much later in the history of the flute, and, indeed, in Lin's account, there was often uncertainty on whether some of the earlier forms of the Chinese flute were played horizontally or vertically. From the Qin to Tang dynasties, the term *xiao* actually referred to a type of pan flute (*pai xiao* 排簫), where a number of fixed-tuned flutes were bound together as one instrument, and it was not until the Tang dynasty that the term *di* referred specifically to a transverse flute.³⁴

³² Based on a Google search for “Chinese xiao instruction” in March 2014. There were no links to any English instructional publications on the *xiao*, and the one link to an Ebay listing for “Self Study Chinese Vertical Bamboo Xiao Book” is actually for a Chinese publication, most likely published in China, since the image of the book cover is in simplified Chinese.

³³ <http://www.2measures.com/index.html>; <http://www.amazon.com/Beginner-instruction-Bookset-Introduction-Grayscale/dp/B007NV7KBQ>. Accessed March 2014.

³⁴ Lin 2009, 40.

4.2. Learning the *xiao*

Perhaps the “underdog” status of the *xiao* is one of the reasons that I have developed an affinity and sense of vocation for studying this instrument and featuring it in my composition. More importantly, it is the pleasure of playing the instrument and hearing the calming yet expressive quality of its tone that continues to motivate my exploration of the instrument. The remainder of this chapter will describe a more personal experience and relationship with the *xiao*, and the insight I gained from my teacher Tam Po Shek that figures into the *xiao* performance in the third and fourth pieces of my composition.

One of my initial challenges in playing the *xiao* was developing a proper embouchure, which is completely different from the one used for playing the Japanese transverse flute (*shinobue*), which I had been playing for a number of years before learning the *xiao*. Playing *shinobue* in the context of a *taiko* drumming ensemble required maximal volume and rhythmic accuracy. By contrast, in learning to play the *xiao* as a solo instrument, purity and fullness of tone was of fundamental importance, and the most frequent criticism from my teacher, Tam Po Shek, was my lack of sensitivity to the tonal character. I was constantly reminded that it is not enough to just produce a note; I must develop a habit of making immediate adjustments in my embouchure in order to vibrate the entire frequency spectrum offered by the flute. A large portion of practice time was therefore devoted to playing long notes and to developing my sensitivity and muscle memory and reflex for reaching a maximal fullness of tone. Playing long tones

rather than songs or melodies was, to me, a deep and rewarding exercise in focus, discipline, and observation of the constantly changing conditions of breath and tone.

I, like many beginners on wind instruments, intuitively blew *harder* when I was having difficulty producing a sound, but Tam made repeated emphasis on blowing *softer* in such cases, which feels counter-intuitive at first. But this approach was the first of many such insights through playing the *xiao* which implied the idea of not just relaxation (of which more later), but of an overall mindfulness of the connectivity of one's mental and physical state with the sound that one produces. Through this exercise, it also became clear that the *xiao*, like the *shakuhachi*, is an intimate, sensitive, and honest instrument: the attitude, level of concentration, and physical state of the performer is directly reflected in the sound of the instrument. As Tam is quoted in Lin's book,

There are many types of *xiao*, just as there are all kinds of human beings. Every *xiao* has a character of its own which can be felt in the unique sound it produces. But among all this variety, they have one thing in common: the sound of the *xiao* conveys the very deepest emotions in the heart of the player. The sound, sometimes low and intimate, sometimes loud and vehement, always carries the feelings that the player wishes to express. Bamboo is silent, but when turned into a musical instrument, it is endowed with life, vividly expressing the joys, sorrows and thoughts deep within each individual.³⁵

Mr Tam has often noted that well-known Chinese songs, which are often simple, skeletal melodies whose origins are not precisely known, are generally open to individual interpretation and ornamentation.³⁶ The simplicity of the scores that I used in my lessons with Tam, most of which are hand-written by him, indeed offer a minimal amount of expressive notation (Fig. 8).

³⁵ Lin 2009, 92.

³⁶ Tam Po Shek, personal communication, July 2007.

1=F (簡譜作5) | 樂 關 山 月 據梅鹿琴譜. 譯者級評譜

$\frac{3}{4}$
 5.6 1 1 | 2. 2 | 5 5 5 6 2 | 5 — | 1 2 3 2 1 6 |
 5 5 6 | 2. 2 2 3 | 5 5 | 6 1 1 | 5 1 6 1 6 5 |
 5 5 3 5 | 5 6 5 6 | 5 5 3 2 2 3 | 5 5 | 1 1 1 5 1 |
 6 1 6 5 5 3 | 2 2 2 2 5 | 3 2 1 — | 6 2 1 2 1 6 | 5 1 6 1 6 5 |
 5 5 3 2 | 2 5 3 2 | 1 — | 5. 6 1 1 | 1. 2 |
 5. 5 5 6 | 2. 3 2 1 | 1 1 — || 2. 3 2 1 | 1 1 — ||
 rit fine

○ 明月出天山，蒼茫雲海間。長風幾萬里，
 吹度玉門關。僕下白登道，胡窺青海灣。
 由來征戰地，不見有人還。戍客望邊邑，
 思歸多苦顏。高樓當此夜，嘆息未應閒。
 — 李白

Fig. 8 Hand-written score of "Gate, Mountain, Moon" ("關山月") by Tam Po-Shek

As a percussionist, I assumed that my rhythmic command of the instrument was strong, but Tam often commented on my phrasing and rhythm which he deemed awkward and inappropriate. Even though I tried to imitate elastic sense of rhythm and phrasing in playing this kind of music, Tam's demonstration of the same piece would always seem to flow much more naturally. He also often described the traditional repertoire as “simple melodies” that does not necessarily require technical virtuosity, but a depth of understanding and feeling. Indeed, the more I practiced certain pieces, the more I felt I could understand a piece through its deceptively simple melodic structure.

I also decided early on that my aim in learning the *xiao* was not to be able to play a large repertoire of songs, or to be able to play difficult chromatic scales, or to play at virtuosic speeds, but rather to achieve a fullness and clarity of tone and a personal fulfillment in depth of expression. From my experience with Tam, there is a minimalism and archaism to the instrument and the music which I appreciate immensely, and which is far removed from the more virtuosic and orchestral styles of Chinese music that is more commercially popular and visible today. The aesthetic of the *xiao* is also different from that of the *shakuhachi*, in that performance of the former places more emphasis on melodic flow and tonal consistency and fullness, whereas the *shakuhachi* player focuses more on the mastery of a wide range of timbral variations and ornamentations through head movements and embouchure changes.

Finally, one of the most valuable insights I have learned from Tam is the idea of “resetting” oneself while playing the *xiao*, both physically and mentally. During the

course of a performance or practice, minute muscular fluctuations in the mouth, face, fingers, arms, abdominal muscles, all affect the angle at which I am blowing the flute, which directly affects the tone of the flute. Normally, the longer one plays, the tighter and more tired one's muscles become, and one usually compensates for the diminution of volume or tonal quality by tightening one's embouchure and blowing harder. Tam often points out that the best tone I make is usually the one right after I put the flute to my mouth, when both my breathing and muscles are most relaxed. This, in my view, is more than a technical point: it is an important lesson about personal awareness and developing a mindfulness of the body in playing any instrument. It is an exercise in musical expression in a state of equilibrium and relaxation. I have since applied this lesson to drumming as well, and in particular taiko drumming, where there is also a tendency to tighten one's form through a performance, rather than to maintain an openness within the body to allow various parts (the legs, the back, the abdomen) to provide strength. This insight has also proven invaluable in my *kanjira* studies, and in particular in the initial stages of trying to develop technique and speed.

My cultivation in *xiao*-playing is yet another reminder of the importance of balance, of self-awareness, and of the cyclical nature of life (through the act of breathing). It seems that all the most profound lessons in my music training revert back to the idea of “the middle way,” much like the significance of the South Indian *tala* and the need for all compositions and rhythms to end back on the first beat of the *tala*, *sam*. The development of one's sense of *laya* is also an exercise in managing the awareness of

multiple levels of temporal events, and in maintaining a balanced and comprehensive kind of musical perception. The strong spiritual and philosophical implications of playing *taiko*, with its physical demands and challenges in one's physical limits, is yet another path towards a heightened self-understanding.

On another level, the *xiao* also enabled me to experience time in a different than from playing percussion instruments. Whereas percussion and drums realize the passing of time through discrete, temporal marking and through short auditory events, a wind instrument directs one to experience time through the breath and through a single tone, as one continuous temporal and musical event. This experiential difference is reflected in my division of the compositional suite into two halves, where the first two pieces focus on percussive sounds and the interplay of rhythmic layers, and the last two pieces feature the *xiao* and situate it within a more intimate relationship with scores created from the Buddhist text itself.

5. Overview of Buddhism and Nagarjuna's *Mulamadhyamakakarika*

This chapter aims to give a brief outline of the main tenets of Buddhism which serves to provide a broader conceptual context for the understanding of the *Mulamadhyamakakarika (MK)* by Buddhist philosopher Nagarjuna, which is used as a thematic component in my composition.

5.1 Overview of Gautama Buddha and his Teachings

Buddhism originated in India in the 6th Century BCE through the life and teachings of Gautama Buddha (c. 560-440 BC). Born in Lumbini, Nepal, with auspicious signs to the chief of a *kshatriya* clan and Queen Maya of the Kolya tribe, and prophesied as an extraordinary child, prince Siddhartha Gautama was raised in a palace and enjoyed a privileged householder's life to adulthood. As the legend goes, after embarking on an excursion one day and encountering the visions of an old man, a sick man, and a corpse, and becoming contemplative on the impermanence of human life, he was compelled to renounce his worldly position to seek spiritual salvation and a thorough understanding of the conditions of existence. When life as a wandering ascetic – the polar opposite experience to his princely life - also did not provide him with truth, Gautama, according to most early Buddhist texts, sat under a pipal tree (later known as the Bodhi tree) one day and vowed to not rise from his seat until he has attained enlightenment. Similar to the story of Christ and his temptation by Satan in the wilderness, Gautama endured

ceaseless temptations from the evil, deathly divinity Mara, before finally conquering those visions and attaining enlightenment.³⁷

From that point onwards, the Buddha, which literally means “the Enlightened One,” devoted the remainder of his life to spreading his teaching (*dharma*). His disciples include individuals from all walks of life, including his own wife and son. The Buddha attained *nirvana*³⁸ and passed away at the age of eighty, having taught in various parts of India for over 45 years. His teachings were eventually recorded in written form, the earliest surviving written work being the Pali Canon, written in Sri Lanka in the first century B.C.E, and is also known as the *Tripitaka* (“Three Baskets”) which consists of the Buddha's sermons and discourses (*Sutra Pitaka*), rules of monastic discipline (*Vinaya Pitaka*), and scholarly treatises (*Abhidharma Pitaka*).³⁹

The essence of the Buddha's teaching can be summarized as “The Middle Path,” which appeals to the notion that neither worldly self-indulgence nor extreme asceticism and self-deprivation will bring about enlightenment. Buddhism is also rooted in the doctrine of the Four Noble Truths and the principle of Dependent Origination (*pratitya-samutpada*), as well as in the practical and ethical guidelines of the Eightfold Path and the Five Precepts.

For the purposes of our discussion, we shall explore further the notion of what constitute the “Middle” according to both the Buddha and Nagarjuna. The “Middle

³⁷ Prebish, Charles S. And Damien Keown, *Introducing Buddhism* (New York: Routledge, 2006), 30-37.

³⁸ Literally “to extinguish” or “blowing out”; emancipation from all forms of existence, and in the context of rebirth, of not needing to be reborn again into any phenomenal realm and be subjected to the suffering of such an existence.

³⁹ Prebish and Keown 2006, 28.

Way,” as mentioned above, stems in part from the Buddha's own experience of both worldly life and austere asceticism, and the discovery that attachment to either extreme could not bring about liberation from suffering. The idea of suffering, translated from the Sanskrit term *duhkha*, constitutes the main preoccupation of the Four Noble Truths, which states as follows:

1. Life, with all its physical and psychological impermanence and flux, is suffering (*duhkha*)
1. The cause of suffering is continuous and repetitive craving (*trnsa*) for all kinds of desires and things, both pleasurable and destructive, and the ignorance in thinking and hoping that these things will give us lasting gratification
2. Since suffering arises from certain conditions, it is possible to end suffering (*nirodha*).
3. The way (*marga*) to end suffering is to follow the Eightfold Path.⁴⁰

The Buddha, as depicted through the earliest canonical texts, often spoke pragmatically and avoided questions about cosmology and metaphysics, because he was always more concerned with the immediate task of ending suffering and facilitating self-actualization for his followers. Later Buddhist commentators and philosophers, however, became preoccupied with the definition, analysis, and intellectual speculation on many concepts articulated by the Buddha, resulting in numerous sects and schools of Buddhism. Among these is the Madhyamika school founded in India by the philosopher Nagarjuna, who lived in the second or third century C.E. The School of the Middle Way, by focusing on establishing the emptiness of *all* reality, including that of *nirvana* and suffering and The Four Noble Truths themselves, attempts to refute, once and for all, any attachment that one may have towards any concept or object. This notion is fully

⁴⁰ Right view, right resolve, right speech, right action, right livelihood, right effort, right mindfulness, right meditation.

expounded in Nagarjuna's major work, the *Mulamadhyamakakarika* (henceforth referred to as the *MK* for brevity), which forms the basis of the Madhyamika school, and is the source of numerous commentaries and a major influence in Tibetan Buddhism, attesting to the potency of the argument expressed in it. The Madhyamika position is a direct challenge to some of Nagarjuna's contemporaries such as the Abhidharmists, whose views are based on the assumption of the substantiality and immutability of certain things such as consciousness, or the idea of a "Buddha-body." Although the method used by Nagarjuna can be considered dialectically advanced, it is essentially a more thorough philosophical reiteration of the parable of the Buddha's teaching as a raft that aids one across the river, and upon reaching the land on the opposite side of the river, one must abandon the raft, or it will become a burden. Although Nagarjuna is recognized as a major proponent of the more progressive stream of Mahayana Buddhism, the essence of his philosophy in fact reaffirms the orthodoxy of the teaching of Gautama himself.

The main theme of Madhyamaka philosophy is the doctrine of emptiness (*sunyata*), and emptiness as the basic structure of phenomenal existence is manifested in the process of Dependent Origination (*pratitya-samutpada*). Nagarjuna lived in a period when numerous philosophers developed their own interpretations and extensions of Buddhist concepts, and some became so convicted of the substantiality of certain concepts that the essence of the Buddha's teachings have become concretized, as intellectual concepts and even as ontological realities. The Middle Way, for Nagarjuna, is a position that recognizes the conditionality of *both* suffering and enlightenment, and the

higher truth (*paramarthatatya*) and conventional truth (*samvrtisatya*) as taught by the Buddha are like two sides of the same coin. Whatever concept, image, or transitory phenomena that one can perceive or experience is ultimately empty and conditional, but Nagarjuna goes one step further: emptiness itself is not to be grasped onto: “The complete solution, for Nagarjuna, lies in the abandonment of all conceptualizations.”⁴¹ As author Nancy McCagney further explains:

Nagarjuna argues that *paramarthatatya* [i.e., the higher truth] is not, indeed could not be, taught apart from common practice (*vyavahara*), ordinary, everyday activities and discourse (including the Four Noble Truths). *Higher truth cannot be attained because it is simply the recognition that conventional truth is provisional and nonultimate rather than a truth beyond the conventional that can be explained.*⁴²

Despite the philosophical nature of Nagarjuna's writing and his contribution to Buddhism, it must be reminded that his efforts were in line with the Buddha's own effort to alleviate the immediate condition of human suffering. The Buddha himself achieved enlightenment through direct experience, and, in my view, Nagarjuna's logic was employed not for the sake of intellectual exercise, but to defeat the claims that others have arrived at based on their own logical efforts. As Cheng observes, “The doctrine of emptiness is not a metaphysical theory; rather it is essentially a way of salvation. This teaching is given not primarily to make a report about the world, but to 'empty' one of metaphysical speculation so that he can become 'devoid' of intellectual attachments.”⁴³

⁴¹ Cheng, Hsueh-Li, “Nagarjuna, Kant and Wittgenstein: The San-Lun Madhyamika Exposition of Emptiness,” *Religious Studies*, vol. 17, no. 1 (1981), 84. accessed July 16, 2013. <http://www.jstor.org/stable/20005712>.

⁴² McCagney, Nancy, *Nagarjuna and the Philosophy of Openness* (USA: Rowman & Littlefield, 1997), 75, italics mine.

⁴³ Cheng 1981, 68.

Nancy McCagney, in her original interpretation of Nagarjuna's concept of emptiness as “openness,” also makes an appeal to the Buddha's own attainment as a mystical or yogic, but ultimately direct experience. After acquiring the divine eye during the second watch on the night of his enlightenment,

Gautama gained an ability to see the whole world without his vision being obscured by passion, aggression, or ignorance...He did not see a 'pure world,' some supersensory vision of perfection, heaven, or utopia. He saw the world as it is, with all its suffering, etc., but without craving any part of it, without hating any part of it and yet without ignoring any part of it...Gautama's divine eye is not a supernatural eye but an ordinary eye that sees, with all the ordinary rules of perception, an ordinary world. Since his mind is pure, what he sees is not obscured by impurities.⁴⁴

The specific connections between the selected chapters of the *MK* with each of the four pieces will be explored in more detail in final chapter on the structure of the composition.

5.2 Musical Practices and the Middle Way

It is the penetrating position of Nagarjuna's “Middle Way” as emptiness that I have been drawn to since I started practicing Buddhism, and it is a concept I have always been mindful of when learning and making music. The following chapters will make further connections between the ideas in the *MK* and my composition, but suffice to note at this point that my experience of various musical traditions and the cross-pollination of ideas that occur as a result have always seemed clear examples of the impermanence, interdependency, and “emptiness” of life itself. Compositions and performances which

⁴⁴ McCagney 1997, 66.

combine instrumentation and musical patterns that originate from distinct musical cultures engage, in my view, in a sort of “emptying” process of these objects from their cultural and ideological significance. After much reflection on these ideas and numerous discussions with colleagues and mentors, my opinion of these processes have changed over the years. Considering the musical fusion that is becoming more and more commonplace, and the staggering level of accessibility to music from virtually anywhere in the world today, the question I would like to ask is, are we moving towards, or already treading along a “middle path” in world music? Will we create a new type of music that expresses a musico-cultural middle ground whose traditional sources will one day become indiscernible? Will musical instruments eventually be emptied of their cultural context and be used purely for their sonic character? And if an instrument is further removed from its cultural context and becomes increasingly less “exotic” to our ears, will its sound represent anything beyond itself? On a more personal level, what is my role as a musician in learning and carrying the tradition of these instruments? How do my various fields of training transform the use of these instruments? How do I determine, or who determines, the musical and cultural value of my output? I cannot claim to have answers to any of these questions, but it is a line of thought that has inevitably opened through this compositional process.

6. Structure of the Composition

My major composition is a suite of four pieces connected through the common function of each representing a chapter of the *Mulamadhyamakakarika*. In musical terms, they are rather independent and unrelated to one another – the structure, instrumentation, tempo, texture, and compositional process all vary among the four pieces.

As mentioned earlier, the number five permeates on some level in every piece, because of my subjective interest in the number as it is used in music of various cultures and styles, and because of its symbolic importance in some of the cultures in which I have been immersed. The first section of this chapter provides an overview of my rationale for incorporating the number 5 into this composition.

6.1 The number five

I had decided from the beginning to incorporate the number five into my composition for a number of reasons. As a percussionist, I have always been interested in developing skills in playing odd meters, and have always enjoyed listening to pieces with odd meters and asymmetric rhythms. One clear influence is Dave Brubeck's "Time Out" album and the drumming of Joe Morello, especially in "Take Five," in which he was able to constantly explore intricate patterns across the odd meter while maintaining a constant 5/4 pattern on the high-hat. It is the juxtaposition of regular and irregular patterns, and the unexpected rhythmic jolts of odd-meter rhythms that I find musically interesting, and

thus it was an early decision to use uneven time signatures and patterns in my major composition.

My former efforts as a composer also included explorations in five. “Khanda Taiko,” composed for Nagata Shachu in 2004, was my attempt in integrating principles of Karnatic rhythmic theory (to which I was newly exposed at the time) with the idiom of the *taiko* ensemble. The piece is in a 5/4 meter and divided into two sections, the first in a swing (*ukema*) feel, and the second in a straight duple feel. The first section features a duet between a set of Japanese hand-held cymbals (*chappa*) and a shoulder-worn barrel drum (*katsugi-daiko*). The patterns in the solos borrow ideas from Karnatic rhythmic theory, such as the principle of reduction and three-fold repetitions for cadential structures, and using various groupings of patterns and asymmetric phrases to displace and shift rhythms within the five-beat cycle. I have also composed an ambient electronic piece “Pathetic Ascetic” (c. 1997) in a slow 5/2 meter, which was an attempt to write electronic music outside of the common 4/4, duple-feel driven dance music. In other electronic pieces I have incorporated samples of varying beat-lengths – the piece “April” (c. 2009) contained a digitally processed 13-beat *shamisen* loop that was repeated over a 4/4 breakbeat-like groove, thus displacing the accents of the *shamisen* loop against the other four- or eight-beat loops and patterns in the song.

The number five is also significant in the numerological symbolism of many ancient cultures and religions, including Hinduism, Buddhism, and Chinese cosmology, all of which have been explored in previous chapters as cultures and thought systems that

have had formative influences on me as a musician. David Knipe, in his illuminating article "One Fires, Three Fires, Five Fires: Vedic Symbols in Transition", outlines numerous examples of the use of pentadic structures and five-fold symbols in Upanishadic and Vedic texts that often derive from equally symbolic triadic and quadratic structures. Knipe also notes that these texts have an important role in "making sense of the significant legacy of pentadic symbols and expressions in early Hinduism, in Buddhism, Jainism, Samkhya-Yoga, etc."⁴⁵ Based on these Vedic references, Knipe makes a case for the number five as an extension of both the numbers three and four, and symbolic of the concept of wholeness and transcendence.⁴⁶

The ancient Chinese world view is also full of pentadic systems. Chinese philosophy, medicine, and cosmology are all rooted in the concept of the Five Elements (五行) – metal (金), wood (木), water (水), fire (火), and earth (土), and each of these are in turn related to one of five colors, as well as the five vital organs of the human body.

Another manifestation of the number five in Chinese music, and music in general, is in the interval of the fifth and the cycle of fifths. Renowned musicologist Alain Danielou explains how musical theories of the Orient, such as those of the Greeks, Hindus, and Chinese, "[music] becomes a sort of key to the nature of the world, since it gives us numerical expressions referring to the structure of creation – energy-space-time – and to its developments of form (harmony, beauty) and perception (feeling, thought, life)."⁴⁷ The Chinese theory of the *lyu* (律) establishes the entire musical system on the

⁴⁵ Knipe 1972.

⁴⁶ Ibid., 38-40.

⁴⁷ Danielou, Alain, *Sacred Music: Its Origins, Powers, and Future*, (India: Indica Books, 2003), 30.

succession of fifths up to the 60th, and creates a complete hierarchy of values. Danielou's exposition of the Chinese pentatonic scale is also worth quoting at length here, exhibiting the profound and fascinating relationship between numbers, music, the natural elements, mythology, and even social hierarchy in ancient Chinese culture.

In the basic pentatonic scale of Chinese music, the tonic note, which we shall call C, corresponds to the notion of centre, the Earth element, the Emperor, to naked animal species. The first fifth – G, $3/2$ – corresponds to the South, the Fire element, summer, public utilities, feathered species symbolized by the firebird. The second fifth – D, $3^2/2^3$ (or $9/8$) – represents the West, the Metal element, autumn, ministers of state, animals with hair symbolized by the white tiger. The third fifth – A+, $3^3/2^4$ (or $27/16$) – represents the North, the Water element, winter, produce, animals with a carapace symbolized by the black turtle. The fourth fifth – E+, $3^4/2^6$ (or $81/64$) – represents the East, spring, the people, scaled species symbolized by the blue dragon. These degrees of the scale also correspond to the five elements and basic colours: C is yellow, D is white, E is blue, G is red, and A is black. The cycle of fifths corresponds to the cycles of time, which repeat without ever returning to the same point...Number “5” is linked with the senses, emotion, life...The number “5” is Śiva's number, the symbolic equivalent of the phallus, the source of life. The crescent moon, as represented in all cultures, is the moon of the fifth day, which adorns the god's brow.⁴⁸

Another place which inspired my use of the number five is the Chinese translation of the *Mulamadhyamakakarika*. Each Chinese verse of the *MK* is rendered into four short phrases of five characters, and, as explained in the next chapter, I decided to use the Chinese text as scores for the third and fourth piece, mapping the Chinese characters in the text to pitches on the *xiao* and to percussion instruments.

Last but not least, my *kanjira* lessons with Professor Trichy Sankaran have greatly enhanced my familiarity and development in playing and thinking in five. As a specialist in *khanda nadai*, i.e., performing in the beat subdivision of five, Prof. Sankaran has offered numerous exercises in cycles and beat subdivisions of five, which has offered

⁴⁸ Ibid., 31.

numerous ideas for my composition. Many of the exercises I learned in subdivisions of four (*chatusra*) were later practiced in *khanda nadai*, and one of the longer exercises I learned, the *Sankirna koraippu in Khanda Eka Tala*, is, as the title implies, written in a five-beat tala.

6.2 Introductory remarks on the Composition

Each piece in the composition aims to depict one specific chapter of the *Mulamadhyamakakarika*. The chapters I have chosen are listed below.

Chapter 1: Examination of Conditions

Chapter 2: Examination of Coming and Going

Chapter 19: Examination of Time

Chapter 24: Examination of the Four Noble Truths

The first two chapters introduce Nagarjuna's basic stance on the Buddhist idea of emptiness, its connection (or, rather identification) with the doctrine of Dependent Origination, and establishes the dialectic that is used throughout the treatise. The chapter on time has the obvious connection to temporality in music, and the chapter on the Four Noble Truths is considered the climax and philosophical heart of the treatise,⁴⁹ and contains one of the most widely known verses in the whole treatise.

I have made a further division between the first two and last two pieces in terms of compositional method and musical expression. The first two sections are focused on

⁴⁹ Garfield, Jay L., *The Fundamental Wisdom of the Middle Way: Nagarjuna's Mulamadhyamakakarika* (New York: Oxford University Press, 1995), 293

rhythmic, percussion instruments, with a more “worldly” and sensual character, because the chapters associated with them deal with the conditions of worldly, perceptible phenomena. I focused the first two pieces on percussion also because it is my main field of musical training. Through my composition, I aimed to represent musically some of the philosophical ideas of impermanence, interdependence, “coming and going” (the theme of the second chapter of the MK), and emptiness as constant change. At the same time, however, both musically and philosophically, I needed to establish layers of equilibrium, balance, and consistency through a "back rhythm" or a repeating motif with reference to the idea of a tala.

The third piece marks a dramatic departure from the rhythmic momentum established by the first two pieces and introduces the singular tone of the Chinese xiao, a monophonic melodic instrument, which becomes the focal instrument of the second half of this compositional suite. The compositional method of the third and fourth pieces involves using the Chinese text of each chapter as the musical score, by mapping the Chinese characters of the text onto musical pitches using my own system, which will be explained in a subsequent section. The inspiration for this idea came from reading the Chinese translation of the text and noticing the way in which the repetitiveness of the dialectic creates certain patterns of characters, similar to musical notes. I chose this more experimental compositional method as a personal challenge because I have not composed with this method before, but also to contrast with the more familiar compositional process I used for the first two sections.

On a more personal note, this contrast in compositional styles also relates to the overarching concept of this thesis, that of finding a "musical middle way." In stating such an aim, I am also aware of the ephemeral and subjective nature of it. What are the musical "ends" or "points" which give meaning to this "middle"? Among what positions am I negotiating? Is it between that of a composer and performer, a drummer and a flute player, a "traditional" performer and a "world" musician, or a combination of all of these positions? I have yet to arrive at a conclusion for this, but through the process of creating this major composition, I feel that I have at least begun engaging in a deeper way my continuing inquiry on my musical identity. Through my studies in *taiko*, *kanjira*, and *xiao* over the years, I was always focused on respecting "the tradition" and all its performative and aesthetic elements before I feel I am allowed to depart from it, and this includes my preference, mainly with taiko drums, to use these instruments primarily within its cultural context. Perhaps this attitude stems partly from the relatively purist perspective of my mentors, and from being humbled, if not intimidated, by how successfully and effortlessly they seem to be able to give a new voice to their instrument while firmly rooted in and committed to the tradition. Slowly, I am beginning to accept the varied circumstances of my own musical path as an equally valid one that enables me to connect with and relate my instruments to one another in my own way.

6.3 Part I: Examination of Conditions

The first chapter of the *Mulamadhyamakakarika* is titled "Examination of Conditions", and is a crucial reading for understanding Nagarjuna's radical yet fundamentally orthodox interpretation of the Buddhist concept of emptiness. It establishes the philosophical position and methodology for the rest of the treatise. From the introductory dedicatory verse where Nagarjuna declares that "whatever is dependently arisen is unceasing, unborn, unannihilated, not permanent, not coming, not going, without distinction, without identity, and free from conceptual construction,"⁵⁰ Nagarjuna prepares to make no positive assertions of any kind on the fundamental nature of things, and proceeds in this chapter to argue against the intrinsic nature of both causes and conditions, to establish, essentially, the emptiness of causation. This chapter thus sets the tone for all subsequent chapters as they deal with other causal relationships, such as that between desire and the desired (Chapter 6), agent and action (Chapter 8), and fire and fuel (Chapter 10).

The first piece of this compositional suite is a percussion piece that aims to create layers of rhythmic relationships and to use these layers to provide a bedrock for a kanjira solo. I decided to use a medium-tempo (quarter note = 120bpm), 5/4 meter, established by a groove consisting of multiple tracks of percussion, including brushes played on a mini-*cajon* and piccolo snare, kick drum, hand claps, and other percussive textures.

From the beginning I wanted the first section to have clear rhythmic components, and to combine the concept of the "back rhythm" (*jiuchi*) from the *taiko* tradition with

⁵⁰ Garfield 1995, 2.

that of a *kanjira* solo. The underlying triplet or “swing” feel, is widely known as the rhythmic basis for jazz, but is also known as *ukema* in Japanese music. *Ukema* is a common rhythmic base for many Japanese folk pieces, and is also used in many original *taiko* compositions in Nagata Shachu, such as my own composition “Khanda Taiko”(2004), Kiyoshi Nagata's “Harukoma”(1991), “Iwai(Celebrate)”(2001), “Akikaze(Autumn Wind)”(1997), and some of Aki Takahshi's folk-inspired compositions such as “Benten Bayashi”(2004). It is also the rhythmic basis of many styles of traditional dance and music, including the famous drumming style of Miyake island. Through my years of taiko drumming, the *ukema* has thus been deeply ingrained in my musical and muscle memory. The use of brushes is a reference to my studies in jazz drumming, but also for their intrinsic ability to offer both percussive and sustained types of sound. I also begin the piece with the brushes that begin in free time, slowly fading in and establishing the tempo and feel.

It is also interesting to note that while there is the concept of the triplet beat subdivision (*tisra nadai*) in Karnatic music, the tradition does not incorporate the concept of “swing” in performance. I composed the *kanjira* solo using much of the rhythmic vocabulary and technique that I have learned through my lessons with Professor Sankaran, including the concept of the *korvai*, and a number of phrases from *kanjira* exercises. It was thus a conscious effort to play the *kanjira* with its culture-specific rhythmic vocabulary, as opposed to attempting to impose, for example, *taiko* rhythms or jazz drumming “licks” onto the *kanjira*. On the other hand, composing the rhythmic base

with the concept of the *jiuchi* also removes the *kanjira* from the foundation of the *tala* and situates it in a new and different temporal framework.

The interrelationships of the instruments in this section aims to sonically represent the conditioned flux and transience of worldly phenomena. This is also the densest of the four sections in terms of instrumentation, evoking the notion of the density and substantiality of phenomenal existence. The brushes on either side of the stereo field add sustaining but rhythmically suggestive and varied layers of sound, while the kick drum (a converted floor-tom) and the clapping provide the groove. I have also incorporated elements from my taiko composition “Khanda Taiko,” such as the underlying beat, and phrases in the *kanjira* solo.

6.4 Part II: Examination of Motion

Although Garfield has translated the theme of this chapter simply as “motion,” the title has been rendered by other English translators as “Investigation of Coming and Going,”⁵¹ “Examination of the Moved and Not-Moved,”⁵² and “Analysis of Coming and Going.”⁵³ Garfield's analysis also contains a footnote on various interpretations on the precise theme of this chapter, which describes this chapter as a discussion on change in general.⁵⁴ These translations of the title are also consistent with the Chinese translation,

⁵¹ Batchelor, Stephen, *Verses from the Center: A Buddhist Vision of the Sublime* (New York: Riverhead Books, 2000).

⁵² Kalupahana, David J, *Mulamadhyamakakarika of Nagarjuna: The Philosophy of The Middle Way* (New York: State University of New York, 1986).

⁵³ McCagney, Nancy. *Nagarjuna and the Philosophy of Openness* (England: Rowman & Littlefield, 1997).

⁵⁴ Garfield 1995, 125-6.

which bisects “motion into two distinct characters for “coming” (來) and “going” (去). The Chinese monk, the Venerable Ming-Hui, opens his analysis of this chapter by saying that “coming and going implies bi-directionality. Going denotes moving from the internal to the external, and coming denotes the external to the internal.”⁵⁵ He also associates motion with the process of sentient beings' moving among the Six Realms of Existence.⁵⁶

Whatever the interpretation, based on this two-fold description of motion, I have chosen to depict the text as a duet between two mini-*cajon*. On a superficial level, the two instruments represent the duality of properties discussed in the chapter, which is not only of coming and going, but also of motion and the mover. The concept of the duet in which one solo follows another also encapsulates the transience and flow of motion, and the musical variation in each section and our perception and memory of these events are also reflective, if in a more introspective way, of the ideas discussed in this chapter.

I used two mini-*cajon* of different size and make (one was bought in a local instrument shop in Bali while the other is from professional German percussion maker Schlagwerk), which gives each part of the duet a distinct sound. I also chose the mini-*cajon* simply because I have enjoyed playing on it ever since I bought one and wished to explore the instrument further.

This section shifts from the relaxed, swinging groove of the first section into an alternating groupings of a 20-beat cycle into four groups of five and five groups of four. I

⁵⁵ Ven. Ming-Hui, Lau Kam-wah. Wong Ka-shu, *Selected Talks on the Mulamadhyamakakarika* (Hong Kong: Bright Pearl Buddhist Institute, 1996), 53. Translation by the author.

⁵⁶ This is the Buddhist cosmological concept identifying six realms of existence – gods, demi-gods, humans, animals, hungry ghosts, and hell beings.

chose a 20-beat cycle in keeping with my intent to incorporate the number five in each of my pieces, but manifesting it in a different way each time. In contrast to the first section, which uses a back-rhythm or underlying groove to support the solo, this section uses the Karnatic concept of the *tala* in providing metric structure to the duet, and it is the solo instruments that imply the "groove" of the piece.

I composed an original *tala* using a hand bell. As a counterpoint to the *tala*, and to deliberately confuse the perception of the beat groupings, I added a bamboo clapper whose beat markings are opposite to that of the bell. The resulting combination marks both 4 x 5 and 5 x 4 groupings (Fig. 9):

SECTION II - EXAMINATION OF MOTION

TALA :

HAND BELL :

BAMBOO CLAPPER :

Fig. 9 20-beat *tala* for "Examination of Motion"

For the two mini-*cajon*, one plays patterns in groups of 4 while the other plays patterns in groups of 5. While there is no actual beat subdivision (*nadai*) change in this piece, my concept is to write similar patterns for each *cajon*, and to present these patterns, first on their own, and then superimposed onto each other, to see the resulting displacement of rhythms and musical/perceptual effect. The *solkattu* breaks were

developed after recording the *cajon* parts and feeling that there should be some kind of break and transition between two sections. This piece was also partly inspired by Professor Trichy Sankaran's original composition "Catch 21," which in part consists of a solkattu duet between himself and his daughter, vocalist Suba Sankaran, over a 21-beat tala from the Tirrupugazh folk tradition.

The drum parts themselves were mainly composed by experimenting on the *cajon* and developing various patterns. This compositional process is a more habitual and comfortable one for me, having been trained mainly in oral traditions where I learn primarily through recitation and imitation. Having said that, it is also one of the reasons I departed from this process for the third and fourth pieces, where I took a more intellectual and visual approach. Drawing inspiration from non-musical material is not a new practice for me, as I have often looked to visual patterns and lines in nature for aesthetic ideas (mountain contours, shapes of plants, trees, etc), but this is the first time deriving a score from a Chinese text and attempting to read and play the resulting music.

6.5. Part III: Examination of Time

This section is a dramatic break from the rhythmic focus of the first two sections and introduces the Chinese *xiao*. Since this section is assigned to interpret the chapter on time, I wanted to depart from the manifestation of musical time as rhythm and meter, as expressed in the previous two pieces, and immerse more in the performer's experience and perception of time through the playing of the flute.

As mentioned in a previous chapter on learning the *xiao*, one of the most profound experiences about playing this instrument is in developing an awareness of time through the rhythm of one's own breath, and the relation of all the subtleties of a breath to the production of a musical sound. A wind instrument such as the *xiao* is unique in its reliance on and sensitivity to the human breath, a bodily act so essential to our existence, and yet so constant and repetitive that we become quite oblivious to it for much of our lives. The nuances and variations of a single breath, and by extension, the state of relaxation and tension of the entire body, has such a direct effect on the sound of the instrument that it is no wonder that Japanese Zen monks have appropriated the *shakuhachi* as an instrument of meditation. I do not claim to be a Zen Buddhist but I have developed a similar relationship with the Chinese *xiao*, and this piece is a reflection of my continuous interest in this very simple yet sensitive and expressive instrument.

In the MK, Chapter 19, the chapter on time, is actually the shortest in the whole treatise, partly because it appears in the second half of the treatise, where Nagarjuna has expounded on the emptiness of various causal relationships and phenomena. Nagarjuna fundamentally establishes the emptiness of time by arguing that "time cannot be conceived of as an entity existing independently of temporal phenomena, but must itself be regarded as a set of relations among them."⁵⁷ He divides time into past, present, and future, and demonstrates how the present and future cannot depend on the past because they would have had to exist in the past, in which case they are not the present or the future. Yet if they are not contained in the past, they cannot emerge from it and therefore

⁵⁷ Garfield 1995, 254.

cannot be dependent on it. Time cannot be grasped as either static or nonstatic, but can only exist as "a set of relations as empirical phenomena."⁵⁸ And since, as Nagarjuna has established earlier in the treatise, empirical phenomena has no inherent existence, neither does time itself. Indeed, music can be seen as the ultimate "empirical phenomena" through which time is manifested as a set of relations.

I have always been interested in the idea of composing a piece for the two differently tuned *xiao* that are typically used in traditional Chinese music today, for which the lowest note is tuned to either C and D. I wanted to create a piece where the two flutes can play simultaneously, creating dissonances and unusual intervals of seconds.

The compositional method I used for this section was developed through working on the fourth section, during which I decided to transform the Chinese text of the MK into a musical score. Since "The Examination of Time" is the shortest chapter in the *MMK*, it was a good "score" to perform at a very slow tempo. Like other chapters in the *MMK*, Nagarjuna uses a circular and repetitive rhetoric, resulting in the appearance of recurring characters in the Chinese translation. The characters on which I chose to map notes of the *xiao* include the most important terms in the chapter - "time"(時), "past"(過去), "present"(現在), "future"(未來), and frequently used grammatical terms or conjunctions such as "if"(若), which often begins a stanza, "because/that which is caused by"(因), the characters representing "not possessing/devoid of"(不/無), "to grasp/possess"(得), and "how"(何). I mapped 14 of these characters to the diatonic scale of each flute rather than mapping all 47 characters that appear in the chapter across

⁵⁸ Ibid., 257.

the 2 flutes (which would have assigned one character to each note of the chromatic across 2 octaves, minus one note) because I wanted the piece to have a simple diatonic melody line with long sustained notes. If I were to map each character to all the available notes on the flutes, the piece would also become isorhythmic, since there will be a note played per character. The hand-written “score” is included in the Appendix.

This choice also creates much more space for the notes of the two flutes to sustain and overlap each other to create the desired performance experience and musical effect. Each *xiao* was recorded with reference to a metronome at 30 beats per minute, and without reference to the other *xiao*.

6.6 Part IV: Examination of the Four Noble Truths

The fourth section, “Examination of the Four Noble Truths,” has been the most difficult section to compose, and went through the most changes amongst all the sections. Part of the difficulty was in my choosing the most important and climactic chapter of the *MK* as a point of departure. The Four Noble Truths is the central doctrine of Buddhism, and here, as he has done throughout the *MK*, Nagarjuna prepares his argument by citing the views of his opponents, in this case the Abhidharmists, and then proceeds to question the insistence of each of the truths having a “self-essence,” and ultimately establishing the emptiness of the Noble Truths themselves.

I initially conceived of returning to the groove in the first section as a musical reiteration, but I did not want another *kanjira* solo above it, and was not convinced that a reiteration of the first section was necessary, since the other sections were also not

musically connected. I then thought more about Indian *talas* and thought about the idea of the palindrome, the use of which I thought could symbolize the cyclical style of Nagarjuna's logic, and also a reference to the Buddhist worldview of an unending and beginningless cycle of death and return, of the dissolution and recombination of conditions, but I also decided early on that I did not want to express the connection between the music and the MK in such a literal and obvious way.

One of the things I did during my study of the MK was copying the Chinese version of the verses beside the English verses into Garfield's book, because, as mentioned earlier in this discussion, I initially studied and comprehended many of the essential Buddhist concepts in Chinese. Buddhist texts in Chinese are often more cryptic but more concise than English, and often, if possible, I would find the English translation of a Chinese text for cross-referencing, and in this case, the process has been very helpful in achieving a more thorough understanding of the verses. After dwelling on the verses for some time, and at times reading them out loud, I noticed the repetition of characters and recurring patterns in the text by virtue of Nagarjuna's logical method, which is much more obvious in Chinese than in English, both visually and sonically, and finally decided to try mapping characters to musical pitches or percussion instruments.

Because each chapter of the MK deals with a particular theme or concept, certain words or characters that appear more frequently than others in each chapter. I picked the characters based on the significance of their meaning in the context of the MK, and the significance of these terms were qualified on the basis of my subjective understanding of

and familiarity with the text and of Buddhism in general. The characters I chose to map first include the Four Noble Truths, each Truth traditionally represented by a single Chinese character (苦, 集, 滅, 道), “emptiness” (空), Buddha (佛), *dharma* (法), as well as characters such as “not” (不), “without”/“not possessing” (無), and other common terms which are used throughout the treatise, and marked each of them with a colored symbol, and counting the number of their appearance in the chapter. After going through the text a number of times, I initially marked out 23 main characters (or a combination of two characters that represent a single concept).

I then assigned these terms, which I finalized into 24 by splitting one of the two-character terms, so that they can be fully assigned to the chromatic scale on two differently tuned *xiao*, one in F and one in G. I re-wrote the characters on a separate sheet of paper in the same order in which that I originally wrote them down based on the significance of their meaning. I assigned the first twelve characters to the chromatic pitches of the F *xiao*, and the remaining 12 characters to the chromatic pitches of the G *xiao*. All the pitches are to be played on the first, ie. lower octave (see Appendix).

I then decided to map the remaining characters of the chapter to percussion instruments. There were an additional 78 individual characters which appear between 1 to 20 times in the chapter. I tallied the number of appearance for each character, and then organized them into three groups based on their frequency of appearance and assigned each group to a percussion instrument:

2 to 5 times - percussion/hi-hat

6 to 10 times - snare
11 to 20 times -bass drum

Within each group, I use the frequency range as a dynamic index. Thus, a character that appeared only two times will be notated as a soft percussion sound, between three and four times a louder one, and one that appears five times the loudest. A character that appears six times is notated as a soft snare, one with a tally of 10 the loudest snare. Finally, the character that appears 11 times is a soft bass drum, 17 times medium loud, and 20 times the loudest. The graphic score for each part of this piece is included in the Appendix.

The original idea for the structure of this piece was to play it through once with all the instruments. After recording the piece, I found that the two *xiao* parts sounded quite interesting on its own, and decided to feature the *xiaos* only, and to repeat the entire piece again with the three percussion parts. I also decided to add an underlying *ostinato* patterns provided by the *kanjira*. This was decided after recording the percussion and *xiao* parts, and hearing the musical result of the graphic score. Although I never intended to manipulate this piece into a deliberately “musical”-sounding piece, I did want to somehow highlight the fact that each verse of the Chinese text is divided into four stanzas of five characters each. The *xiao* and percussion on their own, even though they exhibit certain patterns and sequences, do not mark the “fiveness” of the text, and so I decided to add a track of *kanjira* playing *sarvalaghu*, or “groove” patterns. The patterns are, again, part of the traditional *kanjira* vocabulary I learned from lessons with Prof. Sankaran.

6.7 Performance challenges and notation

One of the challenges of realizing the fourth piece compared to the other pieces is in performing the *xiao* parts. Because traditional Chinese music for the *xiao* are mainly pentatonic or diatonic, it was technically challenging when performing chromatic melodic patterns. In addition, because of the experimental nature of the score, the passages were both melodically and rhythmically anti-intuitive. As a result, for the recording, I essentially recorded the *xiao* part almost phrase by phrase.

The percussion parts were equally challenging for the same reasons, and I initially used sampled drum sounds and manually programmed the sounds into the recording program (Ableton Live), and then later recorded the drums live.

The notation for the entire compositional suite will be hand-written, and will consist of a combination of my own notation for the kanjira solo, Western notation, cipher notation for the *xiao* parts, and graphic notation for the percussion parts in Part IV. I chose to hand-write the notation because of my personal aesthetic preference for hand-written scores, and because of my minimal exposure to musical scores in my musical training within oral traditions. Because I use a combination of various notation, it was in fact easier to hand-write or hand-draw the parts than to create a score using a notation program.

6.8 Future possibilities – variations, score re-mapping, etc.

I can foresee a number of variations for this piece for future performances. For example, the score for the percussion parts can be re-interpreted, with the characters'

frequency of appearance applied to a different performance parameter than dynamic range, such as note length or number of repetitions of a drum stroke. The chosen instruments can be different from the ones used in this recorded version – it does not necessarily have to be *xiao* and percussion, or any kind of flute or percussion instrument at all. Each character may be a different instrument. Different pitches, scales, or modes can be re-assigned to the Chinese characters based on rules determined by the composer. If the *xiao* are used, the upper octaves can be included.

Structurally, there can be more than two repetitions, with different combinations of instruments playing each time. Another possibility is to transpose the *xiao* parts up a fourth in the second repetition, so that the lowest note on both *xiao* becomes the dominant. The verses can be performed out of order. The Chinese text is traditionally read top to bottom and right to left, or, in my score, from left to right and top to bottom, like English. The performer might choose to read a horizontally arranged text vertically, so that she first plays through the first character of each verse, followed by playing the second character of each verse, etc.

The method that I chose in this particular instance to map musical sounds to the text is admittedly one of many possible ways doing so, and probably a relatively conservative way at that. Perhaps in a future project, I or another composer can map the entire *Mulamadhyaamakakarika* into a musical score, perhaps from another translation (the MK is also available in Tibetan, Japanese, Korean, and the original Sanskrit). One can then also explore in greater depth the textual philosophical concepts within the text,

and create new musical expressions for Nagarjuna's profound insights.

7. Conclusion

This thesis was, first and foremost, an attempt to create a musical piece that integrates and fuses the three major fields of my musical training, namely, Japanese *taiko* drumming, South Indian rhythm and *kanjira* training, and my studies in the Chinese *xiao*. I have tried to incorporate into the composition many of the musical ideas, sonic textures, and performance aesthetics that have been instrumental to my musical development, and regard this thesis as an expression of my current musico-cultural identity.

Despite the contrast in style, tempo, and instrumentation of each piece within the suite, the use of the number five as a structural element in each has provided linkage and cohesion among them. The number has been significant to my studies in Karnatic rhythmic training, and I have in the past composed both percussion and electronic pieces based on 5. As mentioned in earlier chapters, the number has also carried symbolic significance in Indian cosmology and ancient Chinese musical theory. Both consciously and by association, the number 5 has always been a presence in my musical undertakings.

I also attempted to establish a link between my musical experience and my philosophical interest by associating each musical piece to a chapter of the famous Buddhist philosophical treatise, the *Mulamadhyamakakarika* by the 2nd-century Buddhist philosopher Nagarjuna. Nagarjuna's major work was a notable influence in my understanding of Buddhist doctrines, namely, that of emptiness, impermanence, and the

Middle Way. The notions of living in the present moment, self-awareness, balance, recognizing the interdependence of all things and the impermanence of all phenomena - all of these ideas and practices have found a way into my perception and cultivation of my musical consciousness.

I have further borrowed the Buddhist concept of the "Middle Way" as a conceptual framework for my composition, because this project is, in a sense, an attempt to discover and establish my own musical identity as a musical "middle ground." I have never been *just* a taiko player, or *just* a student of Karnatic rhythms, or *just* a *xiao* player, but have always been a combination of these, and my diverging interests have consistently reflected my desire to blend, re-present, and find connections among diverse fields. As I continue to subjectively and organically engage with these traditions, I am constantly situating and re-situating both myself and the cultures with which I participate.

From a more collectivistic perspective, the whole musical landscape today can also be seen as an ever-shifting, impermanent "middle ground" that represents the processes of musical confluence and convergence that are occurring now more than ever. Professor David Mott once remarked that "music always ever was," expressing the idea that music itself will always be larger than any individual's effort or body of work. I agree with this view and recognize that musical acts, artifacts, repertoires and scores exist outside and beyond us in space and time. At the same time, however, it is through the human participation with these things and the generation of musical memory, ideas, and acts, that perpetuate music from one moment to the next. Through this thesis, I have

come to understand that the “middle way” is not a musical balancing act of all the traditions I embody and represent, or a path towards finding the middle point of these worlds. Rather, it is the present moment itself, the only point in which my musical consciousness exists. It is Nagarjuna's emptiness, and if we must give it some kind of substance, it is a point between the musical memories and acts of the past, and the potential musical paths of the future. To return once again to Nagarjuna, like all phenomena, music, as it exists in the minds and sensory realms of living beings, is ultimately empty.

Bibliography

Books

Danielou, Alain. *Sacred Music: Its Origins, Powers, and Future*. Articles selected and presented by Jean-Louis Gabin. India: Indica Books, 2003.

Garfield, Jay L, trans. *The Fundamental Wisdom of the Middle Way: Nagarjuna's Mulamadhyamakakarika*. New York: Oxford University Press, 1995.

Keil, Charles and Steven Feld. *Music Grooves: essays and dialogues*. Chicago: The University of Chicago Press, 1994.

Lin, Ke-Ren. *The History of the Chinese Flute (Zhong Guo Di Xiao Shi 中國笛蕭史)*. Shanghai: Shanghai Jiao Tong University Press, 2009. Translations of excerpts by the author and Eddy Chan.

Malm, William. *Six Hidden Views of Japanese Music*. University of California Press, 1986.

McCagney, Nancy. *Nagarjuna and the Philosophy of Emptiness*. U.S.A.: Rowman & Littlefield, 1997.

Nagarjuna and Lama Mipham. *Golden Zephyr: Instructions from a Spiritual Friend*. Translated from the Tibetan by Leslie Kawamura. California: Dharma Press, 1975.

Prebish, Charles S. And Damien Keown. *Introducing Buddhism*. New York: Routledge, 2006.

Rowell, Lewis. *Thinking About Music: An Introduction to the Philosophy of Music*. University of Massachusetts Press, 1983.

----. *Music and Musical Thought in Early India*. India: Munshiram Manoharlal Publishers, 1998.

Sankaran, Trichy. *The Art of Konnakol (Solkattu)*. Toronto: Lalith Publishers, 2010.

----. *The Rhythmic Principles and Practice of South Indian Drumming*. Toronto: Lalith Publishers, 1994.

Shankar, Vidya. *Aesthetic and Scientific Values in Carnatic Music (Vol II)*. Chennai: Parampara, 2005.

Srinivasan, Indira. *Philosophical Thoughts in Indian Music*. Chennai: Om International Publication, 2003.

Varian, Heidi. *The Way of Taiko*. California: Stone Bridge Press, 2005.

Articles

Bender, Shawn. "Drumming from Screen to Stage: Ondekoza's *Ōdaiko* and the Reimagining of Japanese Taiko." *The Journal of Asian Studies*, Vol 69, Issue 03 (2010): 843-867.

http://journals.cambridge.org/abstract_S0021911810001531

Blackstone, Lee. "Remixing the Music of the Spheres: Listening to the Relevance of an Ancient Doctrine for the Sociology of Music." *International Review of the Aesthetics and Sociology of Music*, Vol 42, No 1 (2011): 3-31

<http://www.jstor.org/stable/41228640>

Cheng, Hsueh-Li. "Nāgārjuna, Kant and Wittgenstein: The San-Lun Mādhyamika Exposition of Emptiness." *Religious Studies*, Vol 17, No 1 (1981): 67-85

<http://www.jstor.org/stable/20005712>

Fujie, Linda. "Japanese Taiko Drumming in International Performance: Converging Musical Ideas in the Search for Success on Stage." *The World of Music*, Vol. 43 No. 2/3 (2001): 93-101.

<http://www.jstor.org/stable/41699367>

Knipe, David M. "One Fire, Three Fires, Five Fires: Vedic Symbols in Transition."

History of Religions, Vol. 12 no. 1 (1972): 28-41.

<http://www.jstor.org/stable/1061828>.

Sankaran, Trichy. "Improvisation in Indian (Karnatak) music with a special reference to its rhythmic aspects." *The Journal of the Music Academy*, Volume LVII (1986): 100-109

----- "Rhythmic Analysis of Some Selected Tiruppugazh Songs." *The Journal of the Music Academy*, Vol LX (1989): 92-102

Sonoda, Minoru. "The Traditional Festival in Urban Society." *Japanese Journal of Religious Studies*, Vol 2 No 2/3 (1975): 103-136.

Appendix: Score

PART I - EXAMINATION OF CONDITIONS

KANJIRA SOLO comp. H. CHAN

Γ = OPEN RIM Σ = CLOSED CENTER (3 FINGERS) - = CLOSED CENTER (1 FINGER)

INTRO

BREAK 1

SOLO-SECTION A

21

33

41

49

57

65

73

81

89

97

105

113

121

129

137

145

153

161

169

177

185

193

201

209

217

225

233

241

249

257

265

273

281

289

297

305

313

321

329

337

345

353

361

369

377

385

393

401

409

417

425

433

441

449

457

465

473

481

489

497

505

513

521

529

537

545

553

561

569

577

585

593

601

609

617

625

633

641

649

657

665

673

681

689

697

705

713

721

729

737

745

753

761

769

777

785

793

801

809

817

825

833

841

849

857

865

873

881

889

897

905

913

921

929

937

945

953

961

969

977

985

993

1001

1009

1017

1025

1033

1041

1049

1057

1065

1073

1081

1089

1097

1105

1113

1121

1129

1137

1145

1153

1161

1169

1177

1185

1193

1201

1209

1217

1225

1233

1241

1249

1257

1265

1273

1281

1289

1297

1305

1313

1321

1329

1337

1345

1353

1361

1369

1377

1385

1393

1401

1409

1417

1425

1433

1441

1449

1457

1465

1473

1481

1489

1497

1505

1513

1521

1529

1537

1545

1553

1561

1569

1577

1585

1593

1601

1609

1617

1625

1633

1641

1649

1657

1665

1673

1681

1689

1697

1705

1713

1721

1729

1737

1745

1753

1761

1769

1777

1785

1793

1801

1809

1817

1825

1833

1841

1849

1857

1865

1873

1881

1889

1897

1905

1913

1921

1929

1937

1945

1953

1961

1969

1977

1985

1993

2001

2009

2017

2025

2033

2041

2049

2057

2065

2073

2081

2089

2097

2105

2113

2121

2129

2137

2145

2153

2161

2169

2177

2185

2193

2201

2209

2217

2225

2233

2241

2249

2257

2265

2273

2281

2289

2297

2305

2313

2321

2329

2337

2345

2353

2361

2369

2377

2385

2393

2401

2409

2417

2425

2433

2441

2449

2457

2465

2473

2481

2489

2497

2505

2513

2521

2529

2537

2545

2553

2561

2569

2577

2585

2593

2601

2609

2617

2625

2633

2641

2649

2657

2665

2673

2681

2689

2697

2705

2713

2721

2729

2737

2745

2753

2761

2769

2777

2785

2793

2801

2809

2817

2825

2833

2841

2849

2857

2865

2873

2881

2889

2897

2905

2913

2921

2929

2937

2945

2953

2961

2969

2977

2985

2993

3001

3009

3017

3025

3033

3041

3049

3057

3065

3073

3081

3089

3097

3105

3113

3121

3129

3137

3145

3153

3161

3169

3177

3185

3193

3201

3209

3217

3225

3233

3241

3249

3257

3265

3273

3281

3289

3297

3305

3313

3321

3329

3337

3345

3353

3361

3369

3377

3385

3393

3401

3409

3417

3425

3433

3441

3449

3457

3465

3473

3481

3489

3497

3505

3513

3521

3529

3537

3545

3553

3561

3569

3577

3585

3593

3601

3609

3617

3625

3633

3641

3649

3657

3665

3673

3681

3689

3697

3705

3713

3721

3729

3737

3745

3753

3761

3769

3777

3785

3793

3801

3809

3817

3825

3833

3841

3849

3857

3865

3873

3881

3889

3897

3905

3913

3921

3929

3937

3945

3953

3961

3969

3977

3985

3993

4001

4009

4017

4025

4033

4041

4049

4057

4065

4073

4081

4089

4097

4105

4113

4121

4129

4137

4145

4153

4161

4169

4177

4185

4193

4201

4209

4217

4225

4233

4241

4249

4257

4265

4273

4281

4289

4297

4305

4313

4321

4329

4337

4345

4353

4361

4369

4377

4385

4393

4401

4409

4417

4425

4433

4441

4449

4457

4465

4473

4481

4489

4497

4505

4513

4521

4529

4537

4545

4553

4561

4569

4577

4585

4593

4601

4609

4617

4625

4633

4641

4649

4657

4665

4673

4681

4689

4697

4705

4713

4721

4729

4737

4745

4753

4761

4769

4777

4785

4793

4801

4809

4817

4825

4833

4841

4849

4857

4865

4873

4881

4889

4897

4905

4913

4921

4929

4937

4945

4953

4961

4969

4977

4985

4993

5001

5009

5017

5025

5033

5041

5049

5057

5065

5073

5081

5089

5097

5105

5113

5121

5129

5137

5145

5153

5161

5169

5177

5185

5193

5201

5209

5217

5225

5233

5241

5249

5257

5265

5273

5281

5289

5297

5305

5313

5321

5329

5337

5345

5353

5361

5369

5377

5385

5393

5401

5409

5417

5425

5433

5441

5449

5457

5465

5473

5481

5489

5497

5505

5513

5521

5529

5537

5545

5553

5561

5569

5577

5585

5593

5601

5609

5617

5625

5633

5641

5649

5657

5665

5673

5681

5689

5697

5705

5713

5721

5729

5737

5745

5753

5761

5769

5777

5785

5793

5801

5809

5817

5825

5833

5841

5849

5857

5865

5873

5881

5889

5897

5905

5913

5921

5929

5937

5945

5953

5961

5969

5977

5985

5993

6001

6009

6017

6025

6033

6041

6049

6057

6065

6073

6081

6089

6097

6105

6113

6121

6129

6137

6145

6153

6161

6169

6177

6185

6193

6201

6209

6217

6225

6233

6241

6249

6257

6265

6273

6281

6289

6297

6305

6313

6321

6329

6337

6345

6353

6361

6369

6377

6385

6393

6401

6409

6417

6425

6433

6441

6449

6457

6465

6473

6481

6489

6497

6505

6513

6521

6529

6537

6545

6553

6561

6569

6577

6585

6593

6601

6609

6617

6625

6633

6641

6649

6657

6665

6673

6681

6689

6697

6705

6713

6721

6729

6737

6745

6753

6761

6769

6777

6785

6793

6801

6809

6817

6825

6833

6841

6849

6857

6865

6873

6881

6889

6897

6905

6913

6921

6929

6937

6945

6953

6961

6969

6977

6985

6993

7001

7009

7017

7025

7033

7041

7049

7057

7065

7073

7081

7089

7097

7105

7113

7121

7129

7137

7145

7153

7161

7169

7177

7185

7193

7201

7209

7217

7225

7233

7241

7249

7257

7265

7273

7281

7289

7297

7305

7313

7321

7329

7337

7345

7353

7361

7369

7377

7385

7393

7401

7409

7417

7425

7433

7441

7449

7457

7465

7473

7481

7489

7497

7505

7513

7521

7529

7537

7545

7553

7561

7569

7577

7585

7593

7601

7609

7617

7625

7633

7641

7649

7657

7665

7673

7681

7689

7697

7705

7713

7721

7729

7737

7745

7753

7761

7769

7777

7785

7793

7801

7809

7817

7825

7833

7841

7849

7857

7865

7873

7881

7889

7897

7905

7913

7921

7929

7937

7945

7953

7961

7969

7977

7985

7993

8001

8009

8017

8025

8033

8041

8049

8057

8065

8073

8081

8089

8097

8105

8113

8121

8129

8137

8145

8153

8161

8169

8177

8185

8193

8201

8209

8217

8225

8233

8241

8249

8257

8265

8273

8281

8289

8297

8305

8313

8321

8329

8337

8345

8353

8361

8369

8377

8385

8393

8401

8409

8417

8425

8433

8441

8449

8457

8465

8473

8481

8489

8497

8505

8513

8521

8529

8537

8545

8553

8561

8569

8577

8585

8593

8601

8609

8617

8625

8633

8641

8649

8657

8665

8673

8681

8689

8697

8705

8713

8721

8729

8737

8745

8753

8761

8769

8777

8785

8793

8801

8809

8817

8825

8833

8841

8849

8857

8865

8873

8881

8889

8897

8905

8913

8921

8929

8937

8945

8953

8961

8969

8977

8985

8993

9001

9009

9017

9025

9033

9041

9049

9057

9065

9073

9081

9089

9097

9105

9113

9121

9129

9137

9145

9153

9161

9169

9177

9185

9193

9201

9209

9217

9225

9233

9241

9249

9257

9265

9273

9281

9289

9297

9305

9313

9321

9329

9337

9345

9353

9361

9369

9377

9385

9393

9401

9409

9417

9425

9433

9441

9449

9457

9465

9473

9481

9489

9497

9505

9513

9521

9529

9537

9545

9553

9561

9569

9577

9585

9593

9601

9609

9617

9625

9633

9641

9649

9657

9665

9673

9681

9689

9697

9705

9713

9721

9729

9737

9745</

Handwritten musical notation on a staff with rhythmic markings.

SOLO-SECTION B

Handwritten musical notation for Solo-Section B.

Handwritten musical notation on a staff.

Tom - Tom ta ki ta tom ta ki ta tom - ta. / Tom ta ki ta tom - Tom ja ki ta tom - ta.

Tom - Tom ta ki ta tom ta ki ta tom - ta. / 1. ta ki ta tom ta tom ta ki tom ta ki ta tom ta tom ta tom ta ki ta tom ta tom ta tom

2. ta ki ta tom ta tom ta ki tom ta tom ta tom ta - din - gi - na - tom

(OPEN RIM ROLL)

SOLO-SECTION C

Tom ta ki ta ta ki ta T . tk + tk Ta . ka . di . mi . Takadi mi

T . tk + tk + tk T . tk + tk + tk T . T . tk T . tk + tk + tk tk + tk T . tk + tk T . tk + tk tk + tk Ta . ka . di . mi . takadi mi

16 14 12 6

T . D . TDGNTI . . . D . TDGNTI . . . TDGNTI . . . T . D . TDGNTI T . D . TDGNTI T . D . TDGNTI

REDUCTION 9 9 9

BREAK 2

Handwritten musical notation for Break 2 with accents.

觀時品。

1. 若~~中~~過去時 有未來現在 未來及現在 應在過去時
 G5 G3 F1 F4 F3 G2 F7 F4 F2 F5 F7 F4 F2 F5 F5 F1 F6 F3

2. 若過去時中 無未來現在 未來現在時 云何~~中~~過去
 G5 F1 F6 F3 G1 F7 F4 F2 F5 F7 F4 F2 F5 F3 G7 G3 F1 F6

3. 不~~中~~過去時 則無未來時 亦無現在時 是故無二時
 G4 G3 F1 F6 F3 G1 F7 F4 F3 G1 F2 F5 F3 G1 F3

4. 以如是義故 則知餘二時 上中下一異 是等法皆無
 F3 F3 G1

5. 時住不可得 時去亦~~不~~得 時若不可得 云何說時相
 F3 G4 G6 F3 F6 G6 F3 G5 G4 G6 G7 F3

6. ~~中~~物故~~中~~時 離物何有時 物尚無所有 何況當有時
 G3 G2 F3 G7 G2 F3 G1 G2 G7 G2 F3

G5	▽	反	是	中	G6	下	況
G3	▮	應	故	下	已	當	
F1	△	中	二	一	說		
F6	△	以	異	一	相	47	
F3	○	如	等	一	物	下	
G2	▮	云	義	一	離	一	
F7	▮	云	知	一	皆	一	
F4	▮	則	餘	一	住	一	
F2	○	則	上	一	可	一	
F5	○	亦					

G xiao:

$$1 \mid 5 \ 3 \ - \ - \ - \mid \overset{\vee}{2} \ - \ - \ - \ - \mid \ - \ - \cdot \ - \ - \mid \cdot \ - \ - \ - \ - \mid$$

$$2 \mid 5 \ - \ - \ - \cdot \mid \overset{\vee}{1} \ - \ - \ - \ - \mid \ - \ - \ - \ - \ - \mid \cdot \ 7 \ 3 \ - \ - \mid$$

$$3 \mid 4 \ 3 \ - \ - \ - \mid \cdot \ 1 \ - \ - \ - \mid \cdot \ 1 \ - \ - \ - \mid \cdot \cdot \ 1 \cdot \ - \mid$$

$$4 \mid \cdot \cdot \cdot \cdot \cdot \cdot \mid$$

$$5 \mid \cdot \cdot \ 4 \cdot \ 6 \mid \ - \ - \cdot \cdot \cdot \ 6 \mid \ - \ 5 \ 4 \ - \ 6 \mid \cdot \ 7 \cdot \ - \cdot \mid$$

$$6 \mid 3 \cdot \cdot \ 2 \ - \mid \cdot \cdot \ 7 \ 2 \ - \mid \cdot \cdot \ 1 \cdot \ 2 \mid 7 \cdot \cdot \ 2 \ - \mid$$

F xiao:

$$1 \mid \cdot \cdot \cdot \cdot \cdot \cdot \mid$$

$$2 \mid \cdot \cdot \cdot \cdot \cdot \cdot \mid$$

$$3 \mid \cdot \cdot \cdot \cdot \cdot \cdot \mid$$

$$4 \mid \cdot \cdot \cdot \cdot \cdot \cdot \mid$$

$$5 \mid \cdot \cdot \cdot \cdot \cdot \cdot \mid$$

$$6 \mid \cdot \cdot \cdot \cdot \cdot \cdot \mid$$

Fixiao:

①

- 1 | - - - - 2 | 3^b - - 3^b 4 | - - - 3^b 6^b | - - - - 7 |
- 2 | - 3^b - - - | - 1 + - 3 | - 4 - - 5 | - - - - 3^b |
- 3 | - - - 3^b - | - 3^b - 5 4[#] | 3^b 6^b · 4[#] · | · · · · 3^b |
- 4 | - 3^b - + - | - 3^b 6^b - - | - 3^b - - - | - 3^b 6^b 7 - |
- 5 | - 3^b 7 - - | - 3^b 6^b 6 - | - - - 2 - | - - - - / |
- 6 | 2 7 - 2^b 4[#] | - - - - | - - - - / / | - - - - 7 |
- 7 | - - - 7^b - | - 2 2 2^b 4[#] | ~~- - - 2 -~~ | - - - - |
- 8 | - 6 - - - | - - - - 7 | - - - - | - - - - |
- 9 | - - 7^b - - | / / - - - | - - - 6 7 | 7^b - / - |
- 10 | - 7^b - - - | 7^b - - - | 7^b - - - | - 7^b - - - |
- 11 | 7^b - + + 2 | - - - / | - 7^b - / / | 7^b - / / / |
- 12 | - + - - 7 | + / / - - | - - - - | - - 7^b + - |
- 13 | - - - - 2 | ^{b ketu} - - - - | - - - - | - 2 - 3^b 6^b |
- 14 | - 6^b 2 - - | - - 7 - - | - 3^b 2 - - | - - - 7^b - |
- 15 | - - - 6^b - | - - - / | - - - / | - - - / |

$$16 \left| \begin{array}{c} - - - - 7 \\ - - 6^b - - \\ - - - - 7 \\ 3^b 2^b - 3^b 4^{\#} \end{array} \right| \text{Frisco } \textcircled{2}$$

$$17 \left| \begin{array}{c} - - - 2^b 4^{\#} \\ - - - - 7 \\ - - - - - \\ - - - - 4 \end{array} \right|$$

$$18 \left| \begin{array}{c} - 2^b 4^{\#} - 7 \\ - - - 3^b \\ - - - - - \\ - - - 5 - \end{array} \right|$$

$$19 \left| \begin{array}{c} - / 6^b - 7 \\ 7^b - 2^b 4^{\#} - \\ - - - 7 \\ 3^b 7^b - 2 - \end{array} \right|$$

$$20 \left| \begin{array}{c} - - - 7^b 2 \\ - 3^b 6^b - 4 \\ - - - 3^b 6^b \\ - - - - 7 \end{array} \right|$$

$$21 \left| \begin{array}{c} - 7^b - 4^{\#} - \\ - - / 6^b 1 \\ 3^b - - 1 - \\ - - 3^b 3^b - \end{array} \right|$$

$$22 \left| \begin{array}{c} - 1 6^b - - \\ - - - 3 - \\ - - 3^b 6^b 3 \\ - - 2 - - \end{array} \right|$$

$$23 \left| \begin{array}{c} - 1 6^b - - \\ - 7^b - 6^b 4 \\ - - - - - \\ - - - 4 - \end{array} \right|$$

$$24 \left| \begin{array}{c} - 1 6^b - - \\ - 3^b 6^b - 5 \\ - 5 - - / \\ - 3^b 6^b - - \end{array} \right|$$

$$25 \left| \begin{array}{c} - 3^b 6^b 1 - \\ - 3^b 3 4 - \\ - - 4 1 5 \\ - - - - - \end{array} \right|$$

$$26 \left| \begin{array}{c} - 1 - 6^b - \\ - - - 7^b - \\ - - - - - \\ - - 7^b / - \end{array} \right|$$

$$27 \left| \begin{array}{c} - - 1 7^b - \\ - 3 - - 4 \\ - 5 - - 4^{\#} \\ - - - 7^b - \end{array} \right|$$

$$28 \left| \begin{array}{c} - - 5 4^{\#} - \\ - - 7^b - - \\ - 7 - - - \\ - - - - - \end{array} \right|$$

$$29 \left| \begin{array}{c} - 3^b 6^b - 4^{\#} \\ - 3^b - - - \\ - 3^b - - - \\ - 3^b 6^b - - \end{array} \right|$$

$$30 \left| \begin{array}{c} 3^b - - - \\ - 3^b 6^b 7 - \\ 3^b 7 - - - \\ - - 6^b 6 - \end{array} \right|$$

$$31 \left| \begin{array}{c} - - - 7^b 2^b \\ - - - 6^b 6 \\ - - 7^b 2^b 6 \\ - 6^b - - - \end{array} \right|$$

Exiao ③

$$32 \quad | \quad \cancel{1} \quad \cancel{1} \quad \cancel{4} \quad | \quad - \quad \cancel{1} \quad - \quad - \quad 5 \quad | \quad - \quad - \quad - \quad 6 \quad | \quad 7^b \quad - \quad - \quad - \quad 6 \quad |$$

$$33 \quad | \quad - \quad - \quad 7 \quad 7^b \quad 2 \quad | \quad 3^b \quad \text{---} \quad | \quad 7^b \quad 2 \quad \cancel{4} \quad - \quad - \quad | \quad \text{---} \quad |$$

$$34 \quad | \quad \text{---} \quad | \quad 7^b \quad - \quad 4^\# \quad - \quad - \quad | \quad \cancel{\text{---}} \quad | \quad - \quad 6^b \quad - \quad 4^\# \quad - \quad | \quad \uparrow$$

$$35 \quad | \quad \text{---} \quad | \quad - \quad - \quad 4^\# \quad - \quad - \quad | \quad 4^\# \quad \text{---} \quad | \quad - \quad - \quad \cancel{1} \quad 7^b \quad 2 \quad |$$

$$36 \quad | \quad - \quad - \quad - \quad - \quad 7 \quad | \quad - \quad 2^b \quad 4^\# \quad 2 \quad - \quad | \quad \text{---} \quad | \quad \cancel{- \quad 1} \quad - \quad 6^b \quad 7 \quad |$$

$$37 \quad | \quad - \quad - \quad - \quad 2 \quad - \quad | \quad - \quad - \quad 3^b \quad - \quad - \quad | \quad 3^b \quad - \quad - \quad 6^b \quad - \quad | \quad 7^b \quad - \quad - \quad - \quad |$$

$$38 \quad | \quad - \quad 6^b \quad - \quad - \quad | \quad \cancel{\text{---}} \quad | \quad - \quad 7^b \quad - \quad 7^b \quad 4 \quad | \quad - \quad \cancel{1} \quad - \quad 7^b \quad - \quad |$$

$$39 \quad | \quad - \quad 3^b \quad 6^b \quad 2 \quad - \quad | \quad - \quad - \quad 7^b \quad - \quad - \quad | \quad - \quad 3^b \quad - \quad \cancel{1} \quad - \quad | \quad - \quad 3^b \quad 1 \quad \cancel{1} \quad - \quad |$$

$$40 \quad | \quad \cancel{\text{---}} \quad | \quad - \quad - \quad 2^b \quad 4^\# \quad 7 \quad | \quad - \quad - \quad - \quad - \quad 6 \quad | \quad - \quad 1 \quad 3 \quad 4 \quad 5 \quad |$$

G xiao

①

1 | 2 5 - - - | - 4 - - - | ——— | 6 - 7 - - |

2 | ⁵ - - 6 7 - | ——— | ——— | ——— |

3 | ⁹ ——— | - - 6 - - | - - 6 - - | ——— |

4 | ¹³ 2 ——— | ——— | - - 6 7 - | ——— |

5 | ¹⁷ ——— | ——— | ——— | ——— |

6 | ²¹ ——— | ——— | ——— | 5 ——— |

7 | ²⁵ ——— | ——— | ——— | - - - 4 - |

8 | ²⁹ - - - - 7 | - - 4 - - | 5 - - - 7 | - - 5 - 7 |

9 | ³³ 2 - - - - | ——— | ——— | ——— |

10 | ³⁷ 2 - - - 7 | - - - 5 - | - - - 5 - | - - - 2^b 6^b |

11 | ⁴¹ ——— | ——— | ——— | ——— |

12 | ⁴⁵ ——— | ——— | ——— | ——— |

13 | ⁴⁹ ——— | - - - 4 - | ——— | ——— |

14 | ⁵³ ——— | 5 - - - - | 2 - - - - | 5 - - - - |

15 | ⁵⁷ ——— | ——— | ——— | ——— |

16 | ⁶¹ 2 - - - - | - 1 - 3 - | ——— | ——— |

⁶⁵ 17 | ——— | ——— | --- 5 - | / - 4 - |
⁶⁹ 18 | --- 4 - | ——— | ——— / | --- 4# --- |
⁷³ 19 | - / - 5 - | --- 4 | --- 5 --- | ——— |
⁷⁷ 20 | 2 5 --- | --- 4 - | ——— | 6 - 7 --- |
⁸¹ 21 | 2 --- 4 | ——— / | ——— | 1 3 --- |
⁸⁵ 22 | 2 --- 1 3 | --- 4 | ——— | ——— |
⁸⁹ 23 | 2 --- 1 3 | ——— | ——— / - 1 3 - | --- 7 |
⁹³ 24 | 2 --- 1 3 | ——— | 2 --- / | --- 1 3 |
⁹⁷ 25 | 2 --- 7 | --- 7 | ——— | / ——— / |
¹⁰¹ 26 | 2 - 1 - 3 | ——— | ——— | - 3 - / - |
¹⁰⁵ 27 | ——— | ——— | --- 6 - | ——— |
¹⁰⁹ 28 | - 6 --- 3 | ——— | --- 3 2 1 | ——— |
¹¹³ 29 | 2 --- 6 - | ——— | ——— | ——— |
¹¹⁷ 30 | - 6 - 7 - | ——— | ——— | ——— |
¹²¹ 31 | ~~—————~~ | ~~—————~~ ^{3^b 7^b} | ——— | --- 3^b 7^b |
¹²⁵ 32 | / / / / | - / 3^b 7^b - | 2 --- 3 | ——— |

9②

33 | ¹²⁹ 2 - - - - | - - - - | - - - - | - - 3 1 - | 4 ③

34 | ¹³³ - - - - | - 4 - - - - | - / - - | - - - - |

35 | ¹³⁷ 2 - - - - | - 4 - - - - | - - - - 4 | - / - - |

36 | ¹⁴¹ - - 5 - - | - - - - | - - - - | - / - - |

37 | ¹⁴⁵ 2 - - - - | - - - - | - - - - | - - - - |

38 | ¹⁴⁹ 2 - - 1 3 | - / - - | - - 4 - - | - / - - |

39 | ¹⁵³ 2 - - - - | - - - - | - - / - | - - / - |

40 | ¹⁵⁷ - / - | *knüppeln* | - - - - | - - - - |

1 若^{G2}切^{G5}皆^{SN}皆^P ~~生~~^{F3}亦^{G4} ~~生~~^{F3} ~~生~~^{F4} 如是^S則^B ~~生~~^{F3} ~~生~~^{F6} 聖^{G6} 達^P 文^{G7} ~~生~~^{F3}

2 以^S ~~生~~^{F3} ~~生~~^{G6} ~~生~~^{G7} 故^B 見^S ~~生~~^{F1} ~~生~~^P ~~生~~^{F3} 證^P ~~生~~^{F4} 及^S 修^P 道^{F5} 如是^S 事^B 比^P 手^P ~~生~~^{F3}

3 以^S ~~生~~^B 事^P ~~生~~^{F3} 故^B 則^B ~~生~~^{F3} ~~生~~^{G6} ~~生~~^{F5} ~~生~~^{F4} ~~生~~^{F3} 有^B ~~生~~^{F6} ~~生~~^{G6} ~~生~~^{F4} 故^B 得^S 向^P 者^B 亦^B ~~生~~^{F3}

4 若^{G2} ~~生~~^{F3} 八^P 聖^P 則^B ~~生~~^{F3} ~~生~~^{F6} 僧^P 室^S 以^S ~~生~~^{F3} ~~生~~^{G6} ~~生~~^{G7} 故^B 亦^B ~~生~~^{F3} ~~生~~^{F6} ~~生~~^{F7} ~~生~~^S

5 以^S ~~生~~^{F3} ~~生~~^{F7} ~~生~~^P 僧^S 室^S 亦^B ~~生~~^{F3} ~~生~~^{F6} ~~生~~^{F6} ~~生~~^S 如是^S 說^B ~~生~~^{F2} 者^B 是^B 則^B 破^S 室^S

6 若^{F2} ~~生~~^{F7} 壞^P 因^{F2} 果^{F4} 亦^B 壞^P 於^B 罪^S 福^S 亦^B 復^P 惡^P 壞^P 切^{G5} 世^S 俗^P ~~生~~^{F7}

7 汝^S 今^P 實^P ~~生~~^{F7} 能^P 知^P ~~生~~^{F2} ~~生~~^{F2} ~~生~~^{F2} ~~生~~^{F4} 及^S 知^P 於^B ~~生~~^{F2} 善^B 是^B 故^B 自^P ~~生~~^{G4} 悔^P

8 諸^S 佛^{F6} 依^P 二^P 法^{G7} 為^S 眾^P ~~生~~^{G4} 說^S ~~生~~^{F7} 以^{G5} 世^S 俗^P 法^P ~~生~~^{G7} 二^P 第^P ~~生~~^{G5} 義^B ~~生~~^{G7}

9 若^{G2} 人^P ~~生~~^{F7} 能^P 知^P 於^B 二^P 法^{G7} 則^B 於^B 深^P ~~生~~^{F6} ~~生~~^{F7} 知^{F7} 實^P 義^B

10 若^{G2} ~~生~~^{F7} 依^P 俗^P 法^{G7} 得^{F7} 第^B ~~生~~^{G5} 義^B 得^{F7} 第^B ~~生~~^{G5} 義^B 則^B 得^{F7} 理^B 契^{G2} 實^{G6}

11 ~~生~~^{F7} 能^P 觀^P ~~生~~^{F2} 鈍^P 根^P 則^P 自^B 覺^P 如^S ~~生~~^{F7} 善^P 境^P 行^P 善^{F7} 境^P 行^P

12 世^P 知^P 是^B ~~生~~^{F7} 甚^P 深^P 微^P 切^P 相^P 非^P 鈍^P 根^P 所^P 及^S 是^B 故^B ~~生~~^{F7} 說^S

13 汝^S 謂^P 我^P 著^P ~~生~~^{F2} 而^S 為^S 我^P ~~生~~^{G4} 過^P 汝^S 今^P 所^S 說^S 過^P 於^B ~~生~~^{F2} 則^B ~~生~~^{F3} ~~生~~^{F6}

14 以^S ~~生~~^{F6} ~~生~~^{F2} 義^B 故^B 切^{G5} 則^S 得^S 成^{F7} 若^{G2} ~~生~~^{F3} ~~生~~^{F2} 義^B 者^B 切^{G5} 則^S ~~生~~^{F7} 成^P

15 汝^S 今^P 自^P ~~生~~^{F6} 過^P 而^S 以^S ~~生~~^P 向^P 我^P 如^S 人^P 乘^P 者^B 自^P 忘^B 於^S 所^P 乘^P

16 若^{G2} 汝^S 見^S 諸^S ~~生~~^{F7} 決^P 定^{G1} ~~生~~^{F6} 悔^{G3} 者^B 即^S 為^S 見^S 諸^S ~~生~~^{F7} ~~生~~^{F3} 因^{F2} 亦^B ~~生~~^{F3} 緣^{F4}

17. 即為破困果 作者作三 亦復壞切 萬物之生滅
 S S S F2 F4 S S B S F7 B SP P G5 S P G4 F4
18. 眾因緣 我說即是 亦是假名 亦是中道義
 P F2 F4 G4 F7 P S S B F3 B S B P B B G4 F5 B
19. 未~~有~~ 從因緣 是故切 是~~因~~者
 P F6 G5 F7 F7 P F2 F4 G4 B B G5 S F7 F3 F7 B F2 B
20. 若~~有~~ 則~~有~~ 如是則~~有~~ 聖~~之~~
 G2 G5 S F6 F2 B F3 F6 G4 F4 S B B F3 F6 G6 P G7 P F7
21. 若~~有~~ 從緣 云何~~有~~ 常是~~因~~義 定性~~因~~常
 G2 F7 P F4 G4 P S F6 F1 F3 P B F1 B G1 G3 F3 F3 P
22. 若~~有~~ 何故從 是故~~有~~ 以破~~因~~義故
 G2 F1 F6 G1 G3 S B P F3 G4 B B F3 F6 F3 S S F2 B B
23. 若~~有~~ 則~~有~~ 汝~~有~~ 即破於~~因~~
 G2 F1 F6 G1 G3 B F7 P F6 F4 S P G1 G3 B S S B F4 G7
24. 若~~有~~ 則~~有~~ 若~~有~~ 即~~有~~
 G2 F1 F6 G1 G3 B F3 F6 P F5 G2 F5 P P S F3 F6 G1 G3
25. 若~~有~~ 及~~有~~ 所可~~有~~ 為何所~~有~~
 G2 F3 F6 F1 G7 S F3 F3 F4 G7 S P F4 F1 F5 S S S
26. 若~~有~~ 先來所~~有~~ 於今~~有~~ 其~~有~~ 故
 G2 F1 G1 F6 G3 P P S F7 S B P P S S P G3 F7 B
27. 如見~~有~~ 斷~~有~~ 及~~有~~ 修~~有~~ 是亦皆~~有~~
 S S F1 F7 P P F3 S P F4 P F5 S G6 F4 B B P F6 P
28. 是~~有~~ 先來~~有~~ 諸~~有~~ 性~~有~~ 今~~有~~ 何~~有~~ 可得
 B G6 F5 F4 G3 P P F7 P B S F7 G3 G2 G1 P P S P B
29. 若~~有~~ 則~~有~~ 以~~有~~ 則~~有~~
 G2 F3 F6 G6 F4 B F3 B P B S F3 P P B B F3 F6 P S
30. ~~有~~ 亦~~有~~ ~~有~~ 三~~有~~ 三~~有~~ 三~~有~~
 F3 G6 P G7 B B F3 F6 F7 S F3 F7 S P S P S F6 F6 S
31. 汝說則~~有~~ 善提而~~有~~ 亦復~~有~~ 而~~有~~ 於善提
 S S B F7 F2 G3 G7 S F6 F6 B P F7 F2 F6 S F6 B G3 G7
32. ~~有~~ 修~~有~~ 若~~有~~ 應~~有~~
 P P G3 G7 F5 G2 P P F6 G3 F7 P B P F6

33. 若諸 ~~三~~ ~~空~~ 作罪福者 ~~何~~ 何所作 以其 ~~性~~ 故
 G2 S F7 F4 F2 F3 S S S B F4 F2 S S S S P G3 G1 B
34. 汝於罪福中 ~~生~~ 果報者 是則 ~~罪~~ 罪福 而 ~~有~~ 諸果報
 S B S S P F4 G4 F4 P B B B S S S F6 S F4 P
35. 若謂從罪福 而 ~~生~~ 果報者 ~~果~~ 從罪福 ~~生~~ 云何 ~~空~~ ~~空~~
 G2 P P S S S G4 F4 P B F4 P S S G4 P S F4 F2
36. 汝破 ~~切~~ ~~三~~ 諸因緣 ~~空~~ 義 則破於世俗 諸 ~~緣~~ ~~所~~ ~~三~~
 S S G5 S F7 S F2 F4 F2 B B S B P P S S F6 F7
37. 若破於 ~~空~~ 義 即應 ~~空~~ 所作 ~~空~~ 作而 ~~有~~ 作 ~~空~~ 作名作者
 G2 S B F2 B S P F3 S S F3 S S F4 S F4 S P S B
38. 若 ~~有~~ 決定性 世 ~~間~~ 種種相 則 ~~不~~ ~~生~~ ~~不~~ ~~滅~~ 常 ~~而~~ ~~不~~ 壞
 G2 F6 P G1 G3 P P P P B F6 G4 F4 F4 P S F7 P
39. 若 ~~空~~ ~~空~~ 者 未得 ~~空~~ 應得 亦 ~~空~~ 斷 ~~以~~ 當 亦 ~~空~~ ~~因~~ 事
 G2 F3 F4 F2 B P B F4 P B B F3 P P B F3 F1 P
40. 是故 ~~經~~ 中說 ~~空~~ 見因緣 ~~三~~ 則為能見 ~~三~~ 見 ~~因~~ ~~集~~ ~~道~~
 B B P S G2 S F2 F4 F7 B S P S F6 S F1 F3 F4 F5

mora | #.4 Ta ka di ku k + k Tom + k Tom :| y3

Page ①

1	- - - . -	- - - . -	. - - -	- - - -
2	● - - - ●	● - - - ●	● - - - ●	● - - - ●
3	● ● - - ●	● - - - -	- - - - ●	● - - - ●
4	- - - ● -	● - - - ●	● - - - ●	● - - - ●
5	● - - - ●	● - - - ●	● - - - ●	● - - - ●
6	- - - ● -	● - - - ●	● - - - ●	● - - - ●
7	● - - - ●	● - - - -	● - - - ●	● - - - ●
8	● - - - ●	● - - - ●	● - - - ●	● - - - ●
9	- - - ● -	- - - ● -	● - - - -	- - - ● -
10	- - - ● -	- - - ● -	- - - ● -	● - - - -
11	- - - ● -	● - - - ●	● - - - -	- - - ● -
12	● - - - ●	- - - ● -	● - - - ●	● - - - ●
13	● - - - ●	● - - - ●	● - - - ●	● - - - ●
14	● - - - ●	● - - - ●	- - - ● -	● - - - ●

Ренс ②

15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				

Page ⑤

29	—	● — ● — ●	● — ● — ●	● — ● — ●
30	— ● — ●	● — ● — ●	● — ● — ●	● — ● — ●
31	● — ● — ●	— ● — ●	● — ● — ●	● — ● — ●
32	— ● — ●	● — ● — ●	— ● — ●	— ● — ●
33	— ● — ●	— ● — ●	— ● — ●	— ● — ●
34	● — ● — ●	— ● — ●	● — ● — ●	● — ● — ●
35	— ● — ●	— ● — ●	— ● — ●	— ● — ●
36	● — ● — ●	— ● — ●	● — ● — ●	● — ● — ●
37	— ● — ●	— ● — ●	— ● — ●	— ● — ●
38	— ● — ●	● — ● — ●	● — ● — ●	● — ● — ●
39	—	● — ● — ●	● — ● — ●	● — ● — ●
40	● — ● — ●	— ● — ●	● — ● — ●	● — ● — ●

是 20
 則 20
 者 18
 故 17
 於 17
 亦 15
 義 12
 得 11
 以 10
 宝 10
 作 10
 見 9
 切 8
 汝 8
 諸 8
 所 8
 何 8
 如 7
 破 7
 而 7
 及 6
 說 6
 罪 6
 福 6
 為 6
 即 6

聖 5
 修 5
 壞 5
 世 5
 知 5
 從 5
 云 5
 憎 4
 復 4
 俗 4
 今 4
 能 4
 自 4
 應 4
 可 4
 皆 3
 之 3
 斷 3
 事 3
 向 3
 二 3
 弟 3
 我 3
 成 3
 常 3
 先 3
 報 3

證 2
 八 2
 實 2
 惱 2
 依 2
 眾 2
 人 2
 深 2
 鈍 2
 根 2
 善 2
 相 2
 非 2
 謂 2
 過 2
 乘 2
 決 2
 名 2
 未 2
 來 2
 其 2
 然 2
 中 2
 種 2
 著 2

78

Part II Jun 10 [Part II Sept 16 new]

TAP 60.00 8 / 4 1 Bar

14 8 3 1 1 1 39 0 0 KEY MIDI 1%

The screenshot displays a DAW interface with the following tracks and elements:

- bell tala:** Multiple instances of a rhythmic pattern, labeled "13 bell tala".
- bamboo tala:** A track with a rhythmic pattern, labeled "5 takatakita".
- cajon 5 schi:** A track with a rhythmic pattern, labeled "5 cajon 5", "7 cajon 5", "13 cajon 5-1", and "17 cajon 5".
- cajon 4 ball:** A track with a rhythmic pattern, labeled "7 cajon 4-1", "7 cajon 4-1", "16 cajon 4", and "20 cajon 4".
- soikattu1:** A track with a rhythmic pattern, labeled "2 tak", "2 tak", "8 takadimi", "8 takadimi", "8 takadimi", and "8 takadimi".
- soikattu2:** A track with a rhythmic pattern, labeled "6 7-A", "2 8", "12 7-Audio", "12 7-Audio", "12 7-Audio", "12 7-Audio", "12 7-A", "12 7-A", "12 7-Audio", and "12 7-A".
- soikattu3:** A track with a rhythmic pattern, labeled "15 8-Audio", "15 8-Audio", "3 6-Audio-1", "8 8-Audio", and "16".

Time Selection Start: 14.8.3 End: 16.2.3 Length: 1.2.0 (Duration: 0:10)

Master

