

2013

## Creating and Performing New Australian Works on the Hungarian Concert Cimbalom

Joshua Webster  
*Edith Cowan University*

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Creating and Performing New Australian Works on the  
Hungarian Concert Cimbalom.

By Joshua Webster  
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Faculty of Education and the Arts  
Edith Cowan University

Submitted 24<sup>th</sup> April 2013  
Master of Arts (Performing Arts)

## Abstract

This thesis explores the creation and performance of five new Western Australian works for the Hungarian concert cimbalom. These include four solo works, and one duet, which were scored, analysed, performed, and recorded. This thesis is in two parts: this exegetical component, which details the background, development, and findings of the research, including the scores created, and the manual that was developed for composers' use; and a practical component, which is an active representation of the research, included as video recordings.

To assist the composition of the new works, a manual was developed for the composers' use. This manual began with archival research into the extant literature, and was supplemented with my research and the findings from the collaboration process. The developments pertained to the areas of techniques, mallet selection, preparation, and compositional approach. The manual was a valuable tool throughout the creation and development of the works and remains a work in progress.

A practice-led research framework was central to the project, allowing reflection both in-action and on-action. The project is divided into three areas: the development of a manual as a tool for composers; collaboration with composers on the creation of new works; and performance and recording of the new works. The practical component of the research includes studio recordings of four of the works, and a live performance of the fifth. These performances demonstrate both the creative outcomes of the project in the form of the works, and the research findings through the use of extended techniques and compositional approach.

The exegetical component contains contextual information about the current cimbalom practices in Australia. As my interaction with the research was subjective in nature, I give extensive information about my musical background, and the bodies of knowledge I drew upon in the process. This provides a context for my interaction with the research, and an understanding of my methodological approach.

## Declaration

I, Joshua Webster, certify that this thesis does not, to the best of my knowledge and belief:

1. Incorporate without acknowledgment any material previously submitted for a degree or diploma in any institution of higher education;
2. Contain any material previously published or written by another person except where due reference is made in the text of this thesis; or
3. Contain any defamatory material;

Joshua Webster

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Dr Lyndall Adams

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Elizabeth Bonny

Mace Francis

Christopher de Groot

Johannes Luebbbers

Stuart James

David Pye

My generous and inspiring cimbalom teachers,

Viktória Herencsár

Jenő Lisztes

The Australian cimbalom community,

The ECU and WAAPA staff and students, and,

My amazing family and friends who have been there for me every step of the journey.

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## Introduction

This research project is the result of a practice-led investigation into the creation and performance of five new works for the Hungarian concert cimbalom in Western Australia. The research was conducted at the Western Australian Academy of Performing Arts, Edith Cowan University, from 2011 to early 2013. The research is presented through this exegesis and an accompanying recording of the performance of the five musical works.

## Research Aims and Questions

The research aims were established from the outset of the project and based on what Brad Haseman calls “an enthusiasm of practice” (2007). The research questions however, were developed and refined over time, responding to the fluid nature of the project.

The aims of the research are:

- To investigate the musical application of the cimbalom in newly commissioned Australian repertoire.
- To develop and engage a manual as a compositional tool for the cimbalom.
- To explore the extant techniques and to develop new playing techniques for the cimbalom.
- To promote the cimbalom in contemporary Australian musical practice.

To focus the research, three research questions were developed around the development of a manual as a tool for composers, collaboration with composers on the creation of new works, and performance and recording of the new works for the cimbalom. The research questions are as follows:

1. To what extent can the creation of a technical manual for the cimbalom assist the creation of new Australian musical works for the instrument?

2. How can the collaborative process between the composer and performer inform the creation of original Australian musical works for the cimbalom?

3. How can my performance of original Australian musical works elucidate unique qualities inherent to the cimbalom?

The structure of the exegesis is as follows:

In Chapter 1: Background to the Research, I describe the processes leading up to this project, providing information about my background as a musician and specifically as a cimbalom player. This information is given to provide a context for my musical practice, and to show how I am located within the extant cimbalom practices. I also discuss the impetus for the research, specifically as my way of addressing the lack of cimbalom activity in Australia that I have perceived. It is from this desire that the project stems and this lack of activity is explored to highlight my passion for the potential of the cimbalom and my desire to promote its use, especially in Australia.

To provide a broader understanding of the cimbalom, in Chapter 2: The Cimbalom in Context, I detail the historical development of the cimbalom to show where the instrument sits in a historical context. This chapter also serves as a review of the extant literature, with attention called to the scores, recordings, method books, and orchestration guides that were relevant to the research. To provide an Australian context for the cimbalom, I then detail the current cimbalom practices in Australia, with a discussion of the active performers, instrument maker, and repertoire.

Chapter 3: Methodology, explores my conceptual and theoretical understandings, with a discussion of the practice-led research methodology employed in this research. My methodological approach also relied heavily upon embodied knowledge and this is explained. As mentioned previously, the research was divided into three sections, and a framework for these sections is given, as well as the specific methods used to undertake and document the research. These

methods are listed and described, in order to make the process of the research as open and transparent as possible.

In Chapter 4: The Major Project, I explore the exciting process of realising five new Australian works for the cimbalom from concept through to performance. The discussion progresses sequentially through the development of the works, and analyses the use of the cimbalom, with comparison to examples from the extant repertoire, as well as highlighting the impact of the manual on the work, and the impact of the work on the manual. Preceding the discussion of the works is a discussion of the initial development of the manual, which is then carried on through the discussions of the works themselves.

Finally, I summarise the outcomes of the research in the Conclusion chapter. This brings together the information provided in Chapter 4, and addresses the findings with attention paid to the research questions I detailed above. I also address the implications for future research that arose from this project.



## Chapter 1: Background to the Research

This chapter details the processes leading up to this research project. In order to provide a context for my interaction with the research, I begin with a description of my musical background, with special attention to my practice as a cimbalom player. The impetus for this project is then discussed, to explain my intentions behind the project.

### Musical Background

My formal musical training began with piano studies in 1996, then percussion studies in 2001, with a focus on keyboard percussion, primarily the marimba. I have studied percussion with a number of excellent teachers and have learnt a variety of instruments including keyboard percussion (marimba, vibraphone, glockenspiel, and xylophone), orchestral percussion, and world percussion (congas, bongos, bodhran, cajon, and darabuka). A significant aspect of my musical training at the Western Australia Academy of Performing Arts (WAAPA) was the ability to be versatile, as the examinations required that I play a variety of instruments proficiently. This approach fostered an awareness and appreciation of a range of instruments and music, allowing me to draw from the styles associated with the various instruments.

After completing my study at WAAPA in 2008, I travelled to Budapest, Hungary, on holiday. Prior to leaving, a few musicians suggested that I seek out the cimbalom (tsim-bah-lom), the Hungarian dulcimer, whilst there. I was vaguely aware of the cimbalom, knowing there was an instrument used on occasion by the West Australian Symphony Orchestra, which required the skills of Rebecca Lagos, the principal percussionist of the Sydney Symphony Orchestra. On arriving in Budapest, I went to a folk instrument store and found a small cimbalom, which I later purchased (Figure 1). The instrument baffled me initially, as it was very different to any percussion instrument I had played. I was intrigued by the sound and interested in learning to play it.



Figure 1: Small cimbalom owned by the author. All photos in this exegesis taken by Joshua Webster, unless otherwise specified.

I asked the storeowner for a recommendation of an English-speaking teacher in the area and to my surprise I was referred to the cimbalom virtuoso Viktória Herencsár<sup>1</sup> (b.1953). Herencsár is the co-founder and president of the Cimbalom World Association (1991 to present); the cimbalom lecturer at the Music Department of the Academy of Culture in Banska Bystrica, Slovakia since 1997; cimbalom soloist of the Hungarian Radio since 1973; and member of the orchestra of the Hungarian State Opera since 1975. I was extremely lucky to learn with such an amazing teacher and performer, and over a three month course of lessons, I worked through Géza Allaga's (1841-1913) *Cimbalomiskola* (Allaga, n.d.-a), the first textbook written for the cimbalom, supplemented with Herencsár's scale and arpeggio exercises. This study provided me with an understanding of the fundamental techniques and concepts associated with playing the cimbalom. This initial exposure to the cimbalom in combination with my first experience of living in a foreign country was very powerful, and I was hooked.

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<sup>1</sup>The standard Hungarian name order is surname followed by given names. This document will use the English format.

Learning the cimbalom was a natural extension of my percussion techniques, as it was similar in technique and concept. The cimbalom is typically played with two cotton-tipped wooden mallets, and the distance from the hand to the mallet head is similar to standard percussion mallets. The pedalling technique is similar to a vibraphone, in that the pedal is depressed before the note is struck, and the range is almost identical to a concert marimba (five octaves). The greatest difference between the cimbalom and keyboard percussion instruments is the note layout. The cimbalom layout compacts four-and-five-sixths octaves (C2-A6) into an area that can be played from a seated position. This is a contrast to a marimba, in which the performer must move their body to cover the range. The compact layout of the cimbalom is achieved through the interlacing of sets of strings, and the use of bridges to create multiple notes on a single string. There is a connection between the cimbalom and marimba in works such as *Marimbalom* by Zoltán Györe (1989), in which the marimba part can also be played on the cimbalom, and *Isternia* by Per Nørgård (1979) which was originally written for cimbalom but has been transcribed for the marimba.



Figure 2: Top view of the author's concert cimbalom made by Pavel Všiánský.

The non-linear layout of the notes was different to the keyboard layout I was accustomed to. Before I became accustomed to the layout of the cimbalom, I had the sensation of feeling lost when playing, and this was both frustrating and liberating, as I could not play the instrument from a position of certainty, instead I was forced to explore the instrument to discover different sounds. As I began to develop a greater understanding of the note layout, my frustration decreased whilst the desire to explore the various sounds remained.

I returned to Hungary in 2010 and 2011 for further study with Herencsár, to continue to develop my playing techniques, as there were no proficient players in Perth. I worked through a series of etudes by the Hungarian composer Géza Allaga (Allaga), which provided me with an experience of a wide variety of the standard playing techniques. In addition to further study, I purchased all printed solo repertoire I could access in Budapest, for further study in Australia. I also purchased a concert cimbalom in 2011 made by Pavel Všíanský in Brno, Czech Republic (Figure 2).

In addition to studying with Herencsár in 2011, I had my first experience of improvised folk music in a lesson with virtuosic performer Jenő Lisztes (b.1986), the cimbalom player with the Roby Lakatos Ensemble. This lesson opened my eyes to the potential of the cimbalom in a range of styles, from traditional folk music, to classical, and jazz. I recorded this lesson, transcribed large sections, and learnt these traditional patterns, which I integrated into my playing. This lesson provided a wealth of information and guidance in both playing and stylistic techniques.

As a percussionist, I was familiar with changing mallets to elicit different timbres from an instrument, and I was fascinated with the applications this would have for the cimbalom. After watching a documentary about the Hungarian cimbalom performer Miklós Lukács (b.1977) (Camon, 2007), I was very interested in Lukács' use of extended techniques, including plucked, muted, and harmonic notes; techniques I had touched upon briefly in my study with Herencsár. I

transcribed Lukács' performance of the traditional piece *Zöld az Erdő* (n.d.) and began to experiment with some of the extended playing techniques on the cimbalom. This insight into the extended techniques for the instrument was fascinating and I was extremely interested in pursuing this area of the cimbalom. The cimbalom became the focus of my performance as a percussionist, and I worked through the traditional literature I had bought in Hungary, as well as exploring the instrument through improvisation.

I found there was a great deal of interest in the cimbalom in Perth from the musicians and audiences I encountered, and this was largely due to the fact they had never seen or heard the instrument before. My Australian performances included being invited to perform in Zoltán Kodály's (1882-1967) *Háry János Suite* (1926) with the Fremantle Symphony Orchestra in 2009, the most frequently performed orchestral cimbalom part (Grimes, 2009). I also used the cimbalom in my existing role with the Perth based quartet Tetrafide Percussion, performing an improvisation and an arrangement of *Andante and Allegro* (n.d.) as played by Antal Szalai and His Gypsy Band (Szalai, 2007) at various concerts, and as a pseudo-santur in an Indian inspired concert at the 2010 Fairbridge Folk Festival in collaboration with Indian musicians and dancers.

I was intrigued by the applications for the instrument, having seen it used in a number of genres, and was struck by how relatively unknown it appeared to be in Australia. I began investigating the presence of the cimbalom in Australia, and found only nine performers, myself included (see Chapter 2: Contemporary Practices in Australia for a full discussion). The combination of my interest in further exploring the cimbalom, developing my technique, and the desire to share the instrument with Australian audiences, led to the idea to develop and perform Western Australian repertoire for the instrument, which is the basis for this research project. The decision to work with local composers was to promote the use of the cimbalom in Australian music and to allow for face-to-face meetings.

## Current Cimbalom Practice

My current cimbalom practice is a combination of traditionally influenced thinking mixed with my percussion training and musical tastes. As a musician I strive to appreciate all music, as I believe there are valid ideas in all styles, though my personal preference tends towards tonal music. As a performing musician, I strive to present music that is both interesting and challenging for myself, and accessible to a wide audience, aiming to present a variety of works, to showcase the range of my abilities. The appreciation of variety was developed through my university training, as the concerts were programmed to show the vast possibilities of percussion, and to present a mixture of music that both challenged and engaged an audience.

I perceive my cimbalom practice to be fairly unique due to my geographical and cultural isolation from the instrument and the culture surrounding it. This isolation has a large impact on my practice as it engenders freedom, but also a lack of guidance from experienced cimbalom performers and teachers. It is for the latter reason that I have made three trips to Hungary, in order to seek guidance and musical resources (recordings and scores). This isolation has forced me to rely upon my musical instincts to guide my development, and my playing style is a mixture of traditional and non-traditional techniques. Similarly, my playing technique is a combination of concepts taught by Herencsár with my own percussion techniques. My exploration into the non-traditional is balanced with a respect and intrigue for the established traditions, and to this extent I have and continue to attend Hungarian language classes, to further understand the Hungarian language and culture, as they are interconnected with the cimbalom and the Hungarian folk music.

Whilst maintaining respect for the extant traditions, I am fascinated by the non-traditional uses for the cimbalom, freedom of working in isolation, and the concept of wilfully using the cimbalom in non-traditional ways<sup>2</sup>, and these are

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<sup>2</sup> One such area of non-traditional practice is the use of an electric cimbalom: an acoustic cimbalom with pickups placed below the strings so as to amplify and allow for manipulation of the sound. This is an area with great potential but was not explored in this project.

present in the conceptual thinking behind this research. This desire to explore the cimbalom in non-traditional ways led to my decision to collaborate with composers who had little exposure to the instrument, as I felt their relative inexperience and understanding of the cimbalom could allow for potential discoveries of new techniques and approaches.

This chapter has shown how my musical background has both led me to the cimbalom, and how it has influenced the way I play and perceive the instrument. I have also shown how through my activity as a musician I became aware of the lack of cimbalom activity in Western Australia, and how from this I was inspired to create new repertoire to promote the use of the cimbalom, whilst also developing my technique and understanding of the instrument. The isolation I feel as a cimbalom player in Perth was also discussed, as this creates reliance upon my instincts, and is significant to my context in the wider cimbalom community. The following chapter provides an overview of the development and use of the cimbalom in music, with a focus on the styles associated with this project, to establish an understanding of the historical practices. The history of the cimbalom, and the development through a variety of musical styles, has been documented by a number of authors, and the following description is intentionally concise.

## Chapter 2: The Cimbalom in Context

### Overview of the Cimbalom in Music

The cimbalom is of the zither lineage and is part of the dulcimer family, which includes related instruments such as the hammered dulcimer, hackbrett, yangqin, and santur. Vencel József Schunda (1845-1923), a Budapest based instrument manufacturer, developed the concert cimbalom in 1874. Schunda expanded upon the existing *kiscimbalom* (small cimbalom), an instrument played by Roma (often called gypsy) musicians and Hungarian folk musicians. Schunda increased the range of the instrument from two and half octaves, to four and a half octaves, and added legs, and a pedal operated damper (Herencsár, 1998). By 1906, Schunda had produced ten thousand instruments that were distributed around the world (Gifford, 2001). Richard Grimes (2009) writes of Schunda's development that he "hoped to transport Hungary's national instrument from folk and traveling Roma audiences to more sophisticated patrons, envisioning it as a classical instrument that would find a place among violins, cellos, and pianos in a formal concert hall."

The concert cimbalom was further refined by Schunda and his protégé Lajos Bohák, and later his son (also named Lajos Bohák), who added upper dampers, and changed aspects of the soundboard to increase sound projection in order to allow for better projection in modern orchestras (Herencsár, 1998).

Géza Allaga, a Hungarian composer and performer, was a significant figure in the development of the cimbalom as a concert instrument, writing the first method book, *Cimbalomiskola* (cimbalom school), twenty-four etudes, and numerous books of arrangements of classical music for solo cimbalom. Allaga established the first cimbalom school and from 1890 he was the cimbalom teacher at the National Music School in Budapest. By 1900 it was possible to study the cimbalom throughout Hungary (Herencsár, 1998), largely thanks to Allaga's contributions.



In the early 1900s the cimbalom was brought to the attention of many leading composers through the performances of Hungarian Aladár Rácz (1886-1958). Rácz met the composers Igor Stravinsky (1882-1971), fellow Hungarians Béla Bartók (1881-1945) and Zoltán Kodály. Rácz's performance sparked an interest from these composers and resulted in significant works in the cimbalom repertoire such as Kodály's *Háry János Suite* (1926) and Stravinsky's *Ragtime* (1918). Rácz taught Stravinsky to play the cimbalom and Stravinsky was able to play all the cimbalom parts that he composed (Leach, 1972). Rácz is seen as the first leading cimbalom performer and is credited with raising both the standard of performance and the awareness of the instrument.

Hungarian Ida Tarjáni Tóth (1918-2000) was a leading performer, cimbalom professor at the Liszt Academy in Budapest, and soloist in the State Opera (Herencsár, 1998). Amongst her students was Budapest-based Viktória Herencsár, who is currently one of the leading cimbalom figures worldwide. I have been very privileged to study with Herencsár over three separate trips to Hungary. In 1991 Herencsár established the Cimbalom World Association (CWA), of which I am a member, in an attempt to bring together performers from around the world and commission new works (Herencsár, 1998). Membership of the CWA is open to professional and amateur players, instrument manufacturers, music publishers, and enthusiasts, on the cimbalom and all related instruments, such as the dulcimer, hackbrett, santur, qanun, and yangqin. The CWA holds a biennial conference and has members from thirty countries (Cimbalom World Association (About CWA), n.d.).

## Literature Review

The cimbalom has a place in solo, chamber, orchestral, film, folk, and contemporary music. As this research was centred upon the creation of new solo cimbalom works, the solo repertoire for the instrument was the main focus of the literature review, with method books, recordings, articles, books, and theses providing supplemental information<sup>3</sup>. The cimbalom repertoire was studied in

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<sup>3</sup> The limited Australian literature is examined later in this Chapter, 'Contemporary Practices in Australia'.

scores and recordings. Published scores were difficult to source, so in many cases, recordings were the only available publication of some works.

## Scores

The major publishers for cimbalom music in Hungary are Editio Musica Budapest and Edition Neuma. The scores reviewed included: thirty-five Edition Neuma scores, featuring numerous works, etudes, and arrangements; nineteen Edition Musica Budapest scores, featuring concert works written between 1971-86; four books compiled by Valeriu Luță published between 1997-2006 containing ten contemporary works by Moldovan composers, ten transcriptions of performances by the cimbalom virtuoso Toni Iordache, fifteen arrangements of classical music, and fifteen arrangements of folk music by Sergiu Crețu; the two collections of cimbalom works published by the Cimbalom World Association in 1995 and 1998; and three scores from various publishers.

This repertoire was an interesting cross section of contemporary works, classical etudes, classical arrangements, and folk music, enabling examination of a number of approaches to the instrument. The contemporary works revealed an exploration of the musical applications for the cimbalom, with only a small number of works featuring the use of non-cimbalom mallet types, and the inclusion of extended techniques. This was already an area of playing the cimbalom that I was interested in, and the absence of numerous examples of the use in the extant repertoire that I reviewed highlighted the possible benefits of an investigation into these areas. Specific examples from this repertoire are used in the discussions of the individual works.

## Recordings

The solo cimbalom recordings reviewed included seven CDs published by Hungaroton Classic, featuring four CDs of contemporary work from 1950 to the present, and three CDs of cimbalom etudes and arrangements of classical music; two CDs published by the CWA, featuring Hungarian Romantic transcriptions and world folk music; and two CDs published by Budapest Music Center, featuring contemporary works and classical transcriptions.

The recordings provided an insight into compositional approaches, and an inspiration for performance techniques. The instances of extended techniques were few, with the work *Hand ball paper* (Vékony, 2007) by Ádám Kondor giving one of the greatest examples of extended techniques as the cimbalom is played by the hands, a ball, and paper. The previously mentioned *Cymbalom Legacy* (Camon, 2007) featuring Miklós Lukács, as well as his recordings with Kálmán Balogh on the CD *Cimbalomduó* (Balogh & Lukács, 2009), gave examples of some of the extended techniques possible on the cimbalom.

## Method Books

There are numerous method books written for the cimbalom. Five of the most significant are discussed below.

The first method book, *Cimbalomiskola* (n.d.-a), written by Allaga in the late 1800s, is designed for a complete beginner and presented in Hungarian and German. The book features an explanation of music notation, rhythm, dynamics, tempo markings, standard cimbalom figurations, an image of how to hold the mallets, and a layout of the notes on a small concert instrument (D2, E2-E6). The musical material features progressive exercises, an explanation of the scales and chords, and short etudes. The etudes are comprehensive, covering a range of time signatures, keys, and styles. This book was very instrumental to my cimbalom development, as it was the first text I worked through and I found the progressive development and the visualisation of the layout to be very helpful.

The two following method books are *Cimbalomiskola I* (1958) and *Cimbalomiskola II* (1967) by Ida Tarjáni Tóth and József Falka published by Editio Musica Budapest. These two method books are in Hungarian and German and are written for a small concert cimbalom (C2, D2, E2-E6). The first book includes labelled diagrams, musical exercises, folk music examples, music theory concepts, visual representations of the scales, a note layout diagram, and an excerpt from the cimbalom part from Kodály's *Háry János Suite*. The second book builds upon the first, containing information about modes, technical studies and etudes, scale exercises, and pieces with piano accompaniment.

The method book written by Ferenc Gerencsér (1923-1989) and Ilona Szeverényi (b.1946), also titled *Cimbalomiskola* (1988), is similar to the first of the Tarjáni Tóth and Falka books, with the addition of English to the Hungarian and German text. This book contains multiple labelled pictures giving the names of the parts of the cimbalom, a diagram of the layout of the notes for the current standard concert cimbalom (C2-A6), an overview of different hammer types, music theory, a series of exercises progressing in difficulty, and performance pieces for one and two cimbaloms. One exercise includes the glissando.

One of the most recent method books is *Down to the Wire: a Contemporary Approach to the Concert Cimbalom* (2010) by American composer and performer Richard Grimes. This book contains a comprehensive section on the approach to the instrument including tuning, hammer wrapping, seat selection, body positioning and movement, the mechanics of the stroke and musical applications, physical movement considerations, and the extended techniques plucking and playing harmonics. Each section is supplemented with explanatory photos, which are highly beneficial to the description. There are twenty-four etudes and scale exercises, one in every key, as well as a diagram of the layout of each scale.

Whilst the method books were not written as a compositional aide, the amount of specific information they contained was highly insightful into the techniques and approaches for the cimbalom. The use of photos to clearly show how techniques work was extremely useful as it provided an immediate understanding of the physicality of the technique. The aspects of these method books that I used in the manual included instrument and technique photos, labelled diagrams, pitch layout diagrams, range indications, mallet selection, pedalling techniques, rolls, chords and arpeggios, harmonics, and plucked notes.

## Orchestration Guides

Research into the orchestration literature found a lack of thorough information pertaining to writing for the cimbalom<sup>4</sup>. Two books contained information of some depth, *Anatomy of the Orchestra* by Norman Del Mar (1981), and *Handbook of Instrumentation* by Andrew Stiller (1994). Del Mar details the anatomy of the instrument, the range, gives a selection of notation examples, and provides information for different styles of notating rolls. Stiller details the anatomy in greater detail and provides a layout of the notes, but does not give score examples. The layout given is for a small concert cimbalom (D2, E2-E6) and does not accurately reflect a contemporary concert instrument.

Though a small amount of information pertaining to writing for the cimbalom was found, the following orchestration guides were used as an example of the standard structure, layout, and information presented in conventional guides.

*Instrumentation and Orchestration* by Alfred Blatter (1997), *The Technique of Orchestration* by Kent Kennan and Donald Grantham (2002), and *The Study of Orchestration* by Samuel Adler (2002) contain detailed explanations of writing for a wide range of instruments. The section on writing for string instruments, and particularly the violin, is very thorough. They contain photos of the instrument, explanatory diagrams with a reference for the names of the parts of the violin, a fingering chart, scored examples to demonstrate the use of particular techniques in the repertoire, approaches to writing for the instrument, standard and extended techniques, notation for these techniques, and an overview of the musical application of these techniques. Kurt Stone's (1980) practical guidebook *Music Notation in the Twentieth Century* looks at the conventions of notating music, and describes the notation of instrument specific techniques.

The orchestration guides provided me with a guide to the detail required in my compositional manual, and the appropriate length of samples. They also provided information on notation and formats for more generalised information.

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<sup>4</sup> Out of a sample of seventeen orchestration books at the Edith Cowan University library, the cimbalom was only mentioned in three: twice in some detail and once in passing.

The aspects of the orchestration guides that I used in the manual included score examples, labelled diagrams, and suggested notation for techniques.

The following section discusses the cimbalom practices in Australia, detailing the performers, instruments, and published compositions. The information was collated through a combination of emailed questionnaires and personal communication with the Australian cimbalom performers, online searches, and online archives. The scope of the research was such that efforts were made to identify all the practicing performers, instruments, and published compositions, however, a truly comprehensive analysis of the practice throughout Australia was beyond the scope of this research.

### **Contemporary Practices in Australia**

When compared to Hungarian practices I have experienced, the Australian use of the cimbalom is very limited. I have identified nine currently active performers including myself, and twenty-one instruments<sup>5</sup> through extensive Internet searches, and personal communication with the Australian performers and Hungarian communities.

### **Australian Performers**

The following discussion of the nine active Australian cimbalom performers is based on the literature and practice review. The research uncovered no extant listing of active cimbalom performers in Australia, and to my knowledge this is the first attempt at documenting them. As mentioned, a comprehensive analysis of the contemporary cimbalom practices across Australia was beyond the scope of this research, and whilst every effort was made to locate all active performers in Australia, it is possible some may have been missed. I attempted to contact the eight performers and had responses from seven<sup>6</sup>. I also contacted the Hungarian communities in Perth, New South Wales, Victoria, and South Australia, for information regarding instruments and performers.

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<sup>5</sup> Of the twenty-one instruments, at least three are in an unplayable condition. From personal communication, I have reason to believe there are five more instruments in Australia, though I was unable to contact the owners to confirm this.

<sup>6</sup> A brief questionnaire was developed which detailed the training, performances, and instruments pertaining to each performer.

The eight performers (in alphabetical order) are: Andre Bonetti (QLD), Robert Cossom (VIC), Will Eager (QLD), David Kaloczy (WA), Rebecca Lagos (NSW), Vasil Lolo (QLD), Tim Meyen (ACT), Lucy Voronov (NSW), and myself (WA). Two previously active performers were also identified, Gemma Turner (NSW) (personal communication 8<sup>th</sup> February (2013) and József Kajcsa (NSW) (Music Awards 2011: Hungary - The Transylvaniacs, 2011). Of the nine performers, five are predominately self-taught, and four have had significant training from cimbalom players overseas. Of these four with significant cimbalom training, two are from overseas, having trained in their respective countries, and two have studied the cimbalom overseas, which highlights the lack of trained cimbalom teachers in Australia. Four of the five self-taught players are trained percussionists, and with the inclusion of myself, the majority of the active performers are percussionists primarily, highlighting the strong connection between playing the cimbalom and percussion. This connection between percussionists and the cimbalom is also a factor in the Australian practices, as when an orchestral work requires a cimbalom part, the onus falls to the percussion section, and this is the main performance avenue for two performers.

The current Australian cimbalom scene could arguably be described as threefold: orchestral performers, contemporary classical performers, and folk performers. There are two orchestral cimbalom performers, Rebecca Lagos and Robert Cossom, and they also have performed in contemporary classical settings. The contemporary classical performers also include Andre Bonetti and myself, though Bonetti also fits into the last category as a folk performer. The folk performers are Tim Meyen, Vasil Lolo, Will Eager, David Kaloczy, and Lucy Voronov.

## **Orchestral**

### **Rebecca Lagos**

Rebecca Lagos is the principal percussionist of the Sydney Symphony Orchestra (2006-present). She began playing the cimbalom in 1991, initially self-taught, but later had one lesson with British orchestral percussionist and cimbalom

soloist John Leach in London. Lagos continued to correspond with Leach as questions arose about the cimbalom (personal communication 23<sup>rd</sup> August 2012).

Her use of the cimbalom has been primarily in orchestral and chamber music, with occasional performances in arrangements of contemporary pop music. She has performed the *Háry János Suite* by Zoltán Kodály with the Sydney Symphony Orchestra, Melbourne Symphony Orchestra, West Australian Symphony Orchestra, Queensland Symphony Orchestra, and the Auckland Philharmonic. Opera performances include: *Háry János* (1926) by Zoltán Kodály in Melbourne, and contemporary opera *Writing to Vermeer* (1997-8) by Louis Andriesson (b. 1939) with the Adelaide Symphony Orchestra. Other orchestral performances include: *Monh* (2001-5) by George Lentz (b. 1965), *Stele* (1994) by György Kurtág (b. 1926), *Mystère de l'instant* (1989) by Henri Dutilleux (b. 1916), and *The Lord of the Rings: The Fellowship of the Ring* (2001) and *The Lord of the Rings: The Two Towers* (2002) by Howard Shore (b. 1946). Chamber music performances with the Alpha ensemble and players of the Sydney Symphony Orchestra include: *Ragtime for 11 instruments* (1918) and *Renard the Fox* (1916) by Igor Stravinsky, *Image, Reflection, Shadow* (1982) by Peter Maxwell-Davies (b. 1934), and *Street of Crocodiles* (1995) by Australian composer Liza Lim (b. 1966).

Lagos plays on a cimbalom owned by the Sydney Symphony Orchestra. Lagos' contribution to the cimbalom in Australia is very significant as she is the longest serving and most in-demand orchestral cimbalom player in Australia. The fact that she has performed the *Háry János Suite* with four different Australian orchestras highlights how few cimbalom players there are across the country.

### **Robert Cossom**

Robert Cossom is a classical percussionist and composer, and is a percussionist with the Melbourne Symphony Orchestra. He began learning the cimbalom (self-taught) in 2003 for a performance of the *Háry János Suite* by Zoltán Kodály with



the Melbourne Symphony Orchestra in the same year (personal communication 20<sup>th</sup> June 2012).

He was commissioned by the Melbourne Symphony Orchestra to write a work for cimbalom and ensemble for their Chamber Music Series, and the resulting work was titled *Randolph the Human Ball for Cimbalom and String Quintet* (2006). In addition to the traditional playing techniques, the piece he composed featured playing the instrument with the hands, scraping the strings and glissandi with a guitar plectrum, and playing with an ebow, making a rare example of extended techniques. He has also addressed the Japan Percussion Society on the art of cimbalom playing (Melbourne Symphony Orchestra: Robert Cossom, n.d.).

Cossom plays on a cimbalom owned by the Melbourne Symphony Orchestra. His contribution to the cimbalom in Australia is important because he has performed significant orchestral and chamber works as well as composing one of the few Australian chamber works for the cimbalom.

## **Contemporary Classical**

### **Andre Bonetti**

Andre Bonetti is a Brisbane-based classically trained percussionist who has used the cimbalom in both a folk and contemporary classical setting. He began playing in 2010, and is primarily self-taught, with the exception of two lessons from Alexander Fedoriouk via Skype, and some mentorship from Tim Meyen. He has also received guidance from professional percussionists David Kemp and Vanessa Tomlinson, though they are not cimbalom players.

He has predominately used the cimbalom in the neo-gypsy/klezmer band Greshka, and has recorded six original works and one arrangement on the album *Gypsie Tears* (2011). Bonetti only uses the cimbalom in recordings and occasional performances, as his role is primarily as a percussionist. He also performs in a Hungarian style ensemble with tárogató, guitar, and bass.

He has made use of the cimbalom in a contemporary classical setting through performances of the works *Csardas* (1904) by Vittorio Monti (1868-1922), *Hungarian Dance No. 5* (1869) by Johannes Brahms (1833-1897), an arrangement of the piece *White Knight and Beaver* (1984) by Australian composer Martin Wesley-Smith (b. 1945), and an original tango composition for cimbalom and cello *These Two Insomnias* (2012).

Bonetti originally played on a small cimbalom built in the United Kingdom by Timothy Manning, before purchasing a refurbished concert cimbalom from the United States. Bonetti's contribution to the Australian cimbalom scene is important as he has written for the instrument and performed across music genres.

## **Folk**

### **Tim Meyen**

Tim Meyen may be the leading Australian performer in the folk style and is based in Canberra. He began playing the hammered dulcimer around 1988 and became interested in the cimbalom after hearing a recording of Jewish Klezmer music played on the cimbalom. He attended the Cimbalom World Association Congress in Belarus in 1997, and in Moldova in 1999. Between 1999 and 2010, Meyen made seven study trips abroad to study the cimbalom as he couldn't find anyone to teach him in Australia. Each trip was for several months, and primarily involved study in Romania, learning directly from the Roma cimbalom players in the traditional aural manner. This method involves no written music, and because of this, the knowledge is transferred directly through performance. This teaching method relies upon proficient performers who can transfer the knowledge, and as a consequence, it is not possible to learn without direct access to a teacher. The teachers he has studied with include: Kálmán Balogh, Tomás Petrovits, and Ida Tarjáni-Tóth in Hungary; Marin (surname unknown) in Moldova; Romanian born Nicolae Feraru in Chicago; Toni Árpád, Gheorghe Stan, Gheorghe Raducanu, Emilian Zaharia, Marin Ulei, Stefan Borcea, and Cornel Enache in Romania. He also studied Romanian music with the accordionist Vasile Zaharia.

In Australia, Meyen plays Transylvanian and Hungarian folk music with the Transylvaniacs. This group plays music from several regions where the cimbalom was/is traditionally used including Hungary and Romania. The style of cimbalom playing differs from region to region. He plays Romanian music, of which he has recorded with the group Vardos from Melbourne. He also plays Klezmer music with the band Triplika in Canberra.

He currently owns five cimbaloms, of which four are in the Hungarian style of different sizes, and the fifth is a small Romanian cimbalom, called a *tambal mic*. His contribution to the cimbalom in Australia is very significant due to the large number of teachers he has studied with, and the performances he has given across different musical styles.

### **Vasil Lolo**

Vasil Lolo is a cimbalom player based in Nerang, Queensland. Originally from Slovenia in the Czech Republic, he performs with members of his family and from another Slovenian family. He performs Hungarian and Romanian folk music, as well as jazz and classical works. He has performed at the Woodford and the Queensland Multicultural Festivals, as well as at restaurants, and a variety of concerts (Diverse Musical Instruments and Australia-based Players and Makers, 2011).

### **Will Eager**

Will Eager is a Brisbane-based percussionist and cimbalom player. He completed a Bachelor of Music and Postgraduate Diploma of Music Technology at the Queensland Conservatorium and has performed in a variety of ensembles covering many genres (Whoa Tilly Artist Biographies: Will Eager). He became interested in the cimbalom around 2002 whilst playing percussion in the Balkan gypsy group *Doch*, and purchased a second-hand instrument from Gillian Alcock (personal communication 2012). He is completely self-taught, and has learnt repertoire for the since disbanded Doch Gypsy Orchestra (Brisbane Powerhouse Arts: Doch Gypsy Orchestra, 2009), performed with the group Laique, and

written original music for the group he currently plays with, Taraf Tambal. With Taraf Tambal he has performed at significant festival events such as the Woodford Folk Festival in 2012 (Patterson, 2012). He has also performed in a classical setting on the cimbalom in 2008 with violinist David Rabinovic, but plays almost exclusively Balkan-influenced music on the cimbalom.

### **David Kaloczy**

David Kaloczy is a Perth performer of cimbalom in the folk style. He has performed on the cimbalom with Perth-based band Hot Paprika, a five-piece ensemble that plays the traditional dance music of the village parties of Transylvania (KULCHA Calendar: Hot Paprika, 2010). Kaloczy performs on a cimbalom built by Australian instrument maker Gillian Alcock.

### **Lucy Voronov**

Lucy Voronov graduated from the Belorussian Conservatorium of Music as a concert cimbalom performer in 1995. Voronov performed in a number of ensembles and orchestras in Minsk, Belarus, and toured through Europe. She migrated to Australia in 1999, graduating from The University of Sydney with a Master of Music Teaching degree in 2006, and is based in New South Wales (personal communication 2012).

In addition to teaching, Voronov performs solo cimbalom programs, and as part of new music groups in the world music fusion genre, including the Volatinsky Trio, and Monsieur Camembert. She has performed with a number of orchestras including the Sydney Balalaika Orchestra, the Australian Opera and Ballet Orchestra, and the SBS Youth Orchestra. As soloist with the Sydney Balalaika Orchestra, she recorded a number of CDs featuring the cimbalom, and has toured internationally to Russia (2005, 2007), China (2005), and New Zealand (2012).

Lucy plays a Belorussian soprano concert cimbalom<sup>7</sup> designed and constructed in Bobruisk, Belarus around 1970. She brought the cimbalom to Australia from

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<sup>7</sup> This is traditionally called a *tsimbali* and is of a different layout to the Hungarian concert cimbalom.

Minsk in 1999 and had it rebuilt in 2003 by instrument maker Owen Sullivan at the Overs Pianos Company in Sydney. In addition, she has an alto Belorussian cimbalom. She also owns a Hungarian cimbalom brought to Australia from Hungary in the 1960s, though it is in need of major restoration. Lucy's contribution is significant as she is one of the few active performers who have trained extensively overseas, and she has performed across a variety of musical styles.

### Instrument Maker

Gillian Alcock is the only known cimbalom maker in Australia and she is a board member of the Cimbalom World Association. Based in Canberra, Alcock has made and refurbished a number of cimbaloms for Australian performers, and three for American performers, including a hybrid sandouri-cimbalom, which is the size of a sandouri, the Greek version of the dulcimer, with the layout of a cimbalom (n.d.). She made six of the twenty-five instruments discovered in Australia (personal communication 2012). She has also made a number of other instruments such as dulcimers, harpsichords, and clavichords.

The ownership of the cimbaloms in Australia divides between active performers, the symphony orchestras, the Hungarian communities, and the Powerhouse Museum. A number of these instruments are in need of repair, a service not readily available in Australia, since Alcock has stopped making cimbaloms (2009).

### Repertoire

Investigation into Australian music for solo concert cimbalom has uncovered no published works. The only commercially available published Australian works involving the Hungarian concert cimbalom are<sup>8</sup>: *Lichtpunt* (1983) for flute/alto flute/piccolo, clarinet/bass clarinet, percussion (cimbalom/marimba/vibraphone), piano, two violins, and violoncello by Michael Smetanin (b.1958); and *Street of Crocodiles* for flute, oboe, saxophone, trombone, violin, viola, two

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<sup>8</sup> Finding cimbalom works in online categories is difficult, as it is often listed as percussion. As a result of my enquiry the Australian Music Centre Library, the national representative organisation of Australian music, has since specified the cimbalom within their percussion listing.

celli, and cimbalom by Liza Lim (b.1966). The previously mentioned *Randolph the Human Ball for Cimbalom and String Quintet* by Robert Cossom, and *These Two Insomnias* by Andre Bonetti are self-published, as is the work *Hunting Pack* (2011) for cimbalom, piano, cello, and electronics by Lindsay Vickery (b. 1965), the cimbalom part of which was written for me. I have personally made nine arrangements including the cimbalom, six with percussion ensemble, and three with clarinet and double bass. These arrangements are also self-published. As mentioned within the descriptions of the Australian performers, there is Australian music written for the cimbalom that is self-published or unpublished, though no information was found regarding the specific details.

This Chapter has discussed the historical development of the cimbalom, and its use in the extant repertoire. The instances of extended techniques, and non-cimbalom mallet use in the reviewed literature were few, and this supports the possible benefits that may arise from this research project. As shown above, the cimbalom has a very small presence in Australia, which may stem from a lack of experienced performers in the country. As a result, the majority of the active performers are self-taught, as there is not an easy way to access the established training institutions or high-quality teachers without travelling overseas. The number of full sized concert instruments is also small, as most are not made in Australia, and now with no active instrument maker in Australia, they must be ordered from overseas. This requires a significant financial investment and may explain the lack of concert cimbaloms in Australia. The lack of repertoire for the instrument may stem from the lack of performers and instruments. This highlights the importance and timely nature of this research project. With the history of the instrument, the literature explored, and the Australian context for the project established, the following Chapter discusses the methodological approach to the research, as well as the specific methods in the various sections of the project.

## Chapter 3: Methodology

### Introduction

This Chapter discusses the methodological approaches employed, which was practice-led. The methods used to pursue, understand, and document the research project are described within three major sections. These three sections were reliant on one another, impacted on each other, and unfolded in a fluid process. These parts are:

- The development of a manual as a tool for composers,
- Collaboration with composers on the creation of new works,
- Performance and recording of the new works created.

My methodological approach is discussed to show the conceptual and theoretical underpinning of my interaction with the research. This approach was fluid in nature, as it was led by the project, and allowed for a mixture of methods as required by the specific needs of the relevant sections.

### Methodological Approach

My methodological approach employed a practice-led conceptual framework that was reliant upon embodied knowledge. The bodies of knowledge that I drew upon in my practice included my own embodied knowledge, which is central to my experience as a musician. This includes the history and theory of music, the concepts espoused by the teachers with which I have studied, and the musical artefacts I have experienced, including instruments, repertoire, and various writings.

I perceive music as an embodied activity. Embodied knowledge refers to the knowledge of lived experience; knowledge that is not always explicitly transferrable, as it involves the combination of mental, emotional, and physical processes (Ellingson, 2008). My embodied knowledge is developed through my experience in the world, and results in my specific understandings, processes, and skills. Laura Ellingson (2008) writes:

Embodied knowledge situates intellectual and theoretical insights within the realm of the material world. Embodied knowledge is sensory.... Knowledge grounded in bodily experience encompasses uncertainty, ambiguity, and messiness in everyday life, eschewing sanitized detached measurement of discrete variables. ... Embodied knowledge is inherently and unapologetically subjective, celebrating—rather than glossing over—the complexities of knowledge production. (first paragraph)

I drew upon my embodied knowledge throughout the research period, allowing my accumulated embodied knowledge sets, and those of the composers I collaborated with, to guide the development of the works.

In a discussion of an example posed by Maurice Merleau-Ponty and Gregory Bateson, Eva Alerby and Cecilia Ferm (2005) describe the analogy of a visually impaired man walking with the aid of a stick. When the man uses the stick, the world is experienced through both his body and the stick, and as such the artefact becomes an extension of his lived body. Alerby and Ferm apply this concept to a musical instrument, by viewing it as an artefact that becomes an extension of the performer. This analogy resonates strongly with my perception of the embodiment of music, as in my practice I am the man with the stick, and in this way, my mallets become an extension of my physical body. When applied to my cimbalom practice, the concept of the instrument as an extension of my performative body is easily understood when I consider the difference between playing my small cimbalom and concert cimbalom. The various differences between the instruments, those of range, projection, layout, and tone colour, combine to create markedly different performance realities for me, and I respond to the instruments in different ways, applying my physicality to create one musical entity. The experience of moving between these two instruments is challenging, as it requires awareness of the intricacies of each, and a shift in the physicality of my performance.

This analogy and concept of the stick as an extension of the body can also be applied to the nature of practice-led research as a methodological approach. As both the man and the stick are essential in leading the path they both take, the



*process* of developing the works and the *product* of this development both lead the research.

My approach to the research was unashamedly subjective in nature, as it was centred on, and driven by, my embodied knowledge, instincts, and values. I see this as being phenomenological, in the way Catherine Adams & Max van Manen (2008) describe:

[...] the study of lived or experiential meaning and attempts to describe and interpret these meanings in the ways that they emerge and are shaped by consciousness, language, our cognitive and non-cognitive sensibilities, and by our pre-understandings and presuppositions. (first paragraph)

Whilst the resultant works created through the project are the artefacts that represent the completed outcomes of the research, the *process* of creating the works through collaboration was equally important and powerful in generating knowledge. Estelle Barrett (2010) suggests that one way for the artist/researcher to overcome the dilemma of effectively reflecting upon creative arts research is to “shift the critical focus away from the evaluation of the work as product, to an understanding of both studio enquiry *and* its outcome as process” (page 135). In this regard, the process of development was integral in leading the research, and was equally as important in generating knowledge as the resultant works.

Edmund Husserl states “reality is not given, but is constituted. It is thus apprehended in human experience and given meaning and form” (Schutte, 2008, page 243). My experience in the world constitutes my understanding of the world, an understanding that is particular to my body, sex, race, and location. According to Ellingson “The researcher's body—where it is positioned, what it looks like, what social groups or classifications it is perceived as belonging to—matters deeply in knowledge formation” (2008, first paragraph). In this way, my background as a percussionist, and my geographical and cultural distance from Hungary allow me to develop knowledge and an understanding of the world unique to my circumstances.

## Bodies of Knowledge

The overarching body of knowledge that I draw upon as a musician is the practices of music through history. The styles in which I have a particular interest are: classical, folk, jazz, popular, and avant-garde music. The knowledge I draw on includes: theory, concepts, repertoire, writings, and recordings, which combine to create a deep and diverse information source. As a result of my studies and experience, I have been exposed to a variety of music, and as such, I am aware of the possibilities of:

- notation, from traditional Western notation, to avant-garde notation, to the absence of notation;
- rhythm, from set metric structures to the absence of rhythmic structures;
- pitch, from the standard 12 tone division of the octave to micro-tonal music;
- harmony, from traditional and extended jazz harmony, to the absence of traditional harmonic structures;
- timbre, from traditional notions of tone production to extended playing techniques;
- and form, from Classical forms, to the absence of set structures.

I draw upon the history of different music styles, and concepts from the various styles permeate all aspects of my understanding and performance of music. Whilst the majority of my musical understanding is based upon the foundations of Western music, my increasing interest in non-Western music has broadened my understanding and appreciation. As a result of this, I describe my musical style and appreciation as eclectic.

As a percussionist, I draw on the teachings of the percussionists I have studied with, namely; Tamara Camillieri, Iain Robbie, Neville Talbot, Paul Tanner, and Tim White. I draw upon my experience as a percussionist, through the concepts and styles I have studied including: avant-garde notation, form, and harmony; South-Indian konnokol and the associated rhythmic structures; Latin American rhythm patterns; Irish bodhran rhythms; African djembe and bell patterns; and the concept of rhythms built upon numbers as taught by the Australian

percussionist Greg Sheehan. I also draw upon the repertoire I have studied and performed, the concerts I have performed and attended, the theoretical and conceptual knowledge from books and journal articles, and the physical concepts relating to playing a wide variety of instruments.

The knowledge that I draw upon in my cimbalom practice is heavily influenced by the two cimbalom players I have worked closely and studied with, Viktória Herencsár and Jenő Lisztes. The experience of interacting with these highly skilled performers in a one-to-one context has been very powerful in shaping my perceptions of the possibilities for playing the cimbalom. In addition, I am influenced by the work of a number of leading performers whose work I have studied through audio and video recordings, namely; Miklós Lukács, Róza Farkas, Ilona Szeverényi, Agnes Szakály, Ildikó Vékony, Márta Fábián, and Ernest Bango. My cimbalom practice also draws upon and is influenced by the music I have worked through on the instrument. This includes a combination of classical etudes, a number of instrument method books, my own transcriptions of folk and popular repertoire, arrangements of piano and violin music, and contemporary music written for the cimbalom.

### **Practice-Led Research**

The investigation of the research questions was undertaken through the creation and performance of five new Australian works for the cimbalom. Multiple reflexive and reflective methods were used to facilitate, investigate, clarify, and document the research. The varied nature of the project is well suited to a practice-led research methodology as it allowed for specific techniques led by practice to be used. As a result, multiple methods were used to allow for flexibility in the pursuit of the research questions.

The practice-led methodology employed in this research was not a clean cut, ordered process, and as such, the exact process of creating the works is not replicable. The process of the research was fluid, and I reflected both in-action and on-action, adapting and choosing specific methods and techniques as required. Whilst the process is not replicable, the documentation of the process

was designed to be as open and transparent as possible, in order to convey the process and thinking throughout. This was achieved through active and ongoing documentation of my activities, alongside my associated perceptions and reflections throughout the research in the form of journals, video recordings, and audio recordings. Multiple performances took place throughout the project and these allowed for real-time testing of concepts and ideas developed through my practice for a live audience. Hasemann (2007) describes these performances as performative research, expressed in non-written forms of symbolic data.

I work with improvisation in music, both as a technique over a fixed structure, and in an unstructured manner. Improvisation was a vital method of investigating the research questions, as the fluid nature of my practice-led methodology utilised creative research methods, which Henk Borgdorff (2010) describes as practice, artistic actions, creation, and performance. The methods were adapted as needed to refine and orient the research questions, and to document and reflect upon the key processes, as outlined below.

### **1. The development of a manual as a tool for composers**

An investigation into the published orchestration literature uncovered a dearth of comprehensive information pertaining to writing music for the cimbalom. As a result, I developed a manual to assist composers in the creation of new works. The manual detailed the physical nature of the instrument; described the playing techniques and physical considerations; and discussed the musical possibilities supplemented with reference images, audio-visual recordings, and scored examples (text Appendix #1, and video Appendix #8:1).

The development of the manual was achieved through archival research into orchestration guides, performative method books, theses, audio and video recordings, and extant repertoire; experimental trial-and-error practice; the documentation of techniques through notation, audio and video recordings, digital photographs; and through feedback from the collaborating composers as to what information they would find helpful.

The concept for the development of the manual began after a discussion with composer Chris de Groot in 2010, and the initial development occurred before the initial meetings with the composers I collaborated with during this project. The manual was distributed to the composers shortly after these meetings. The intent of the manual was to provide a comprehensive source of information that would be helpful throughout the compositional process. Collaborating with the composers highlighted possible areas in which to expand the manual, as technical issues and concepts arose during the development of the new works, and these were included in the manual throughout the research. This is discussed at length in Chapter 4.

## **2. Collaboration with composers on the creation of new works**

The creation of the five new musical works was realised through the method of collaborating with five West Australian composers. To promote the compositional exploration of the cimbalom and the creation of varied works, the selected composers were of different musical backgrounds. In addition, the composers were a mixture of freelance professional composers: Elizabeth Bonny, Christopher de Groot, Johannes Luebbers, and David Pye; and doctoral candidates from the Western Australian Academy of Performing Arts: Mace Francis and Stuart James<sup>9</sup>. The selection of the composers was also influenced by my prior relationships with the composers; I selected composers whose work I admired, and I knew I could work with closely to create new works. It was also my intention that the composers had not written extensively for the cimbalom prior to this project, as I was interested in the possibilities of music written without preconceptions about existing cimbalom music.

My desire was to assist in the creation of original Australian cimbalom pieces of a high standard. By collaborating with five composers with very different musical experiences, different approaches were engaged and are elaborated upon in Chapter 4. Collaboration with the composers greatly strengthened the research project as it added different perspectives to the research, expanding the

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<sup>9</sup> Stuart James unfortunately had to pull out of the project due to time commitments.

possibilities for new discoveries, and creating a diverse number of works for the cimbalom.

The composers and I were embedded within the process of creating the works and we responded “to the reciprocating relationship between responsive research strategies and associative creative artistic practices, reflecting both in and on action” (Gray & Pirie in L. Adams, 2008, page 17). We communicated and reflected upon the dialogue from our meetings, and made decisions as to how to develop work based upon these shared ideas and instincts.

Whilst the specific process of developing each musical work varied, an interactive framework was consolidated through the process (Figure 3). The process of creating, developing, rehearsing, and documenting the musical works was broken down into the following key stages: initial meeting; sketch(es); rehearsal; feedback; draft(s); completed work; rehearsal; workshop; performance; and recording. At the draft stage, there was a loop created that involved the composer working separately to create the draft, my private rehearsal of the draft, followed by shared feedback from both parties, propelling the work into the revision and the creation of a second draft. This process continued until both the composer and I were satisfied, marking the completion of the work.

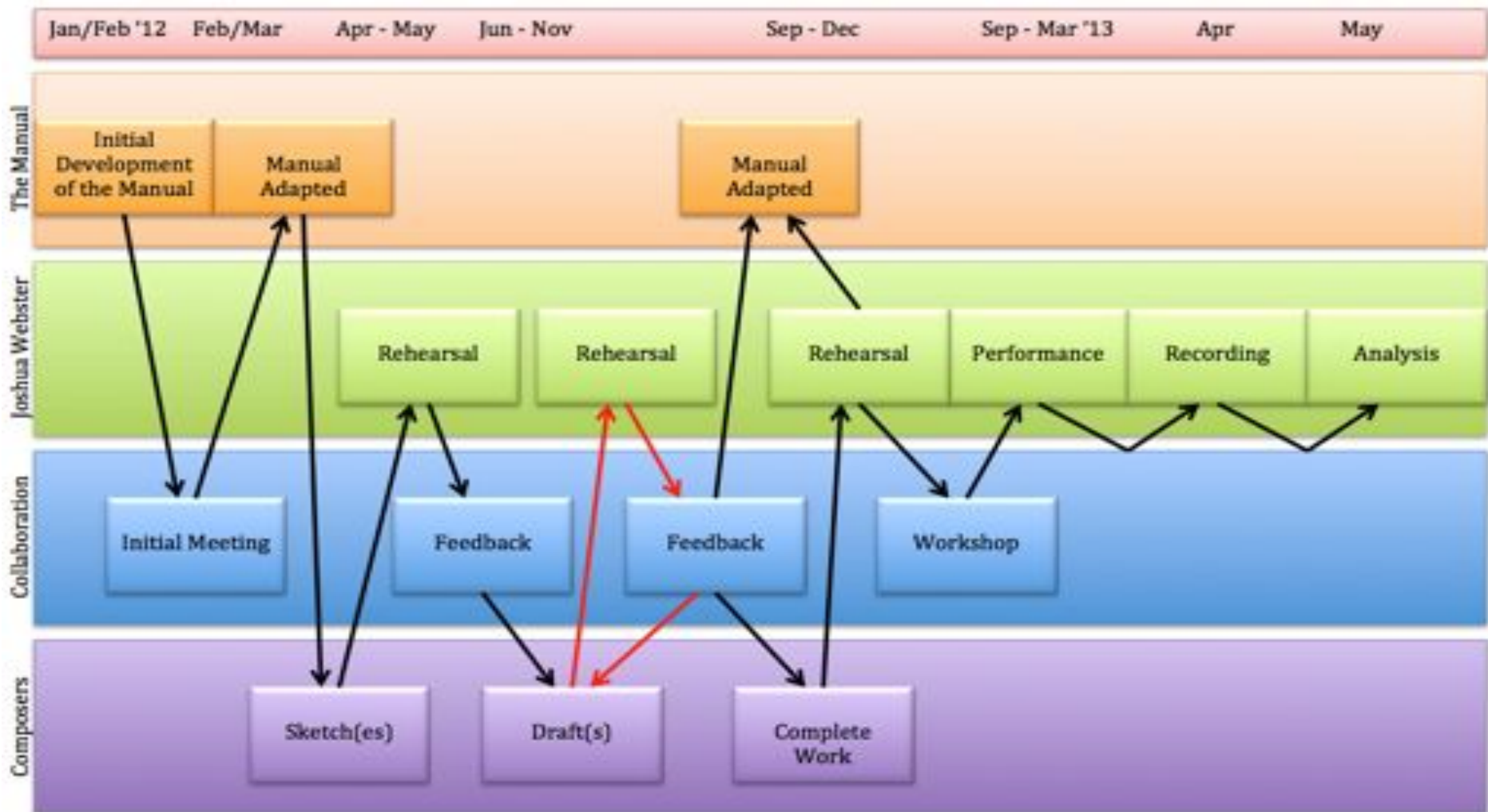


Figure 3: A visual representation of the collaborative development process. The red arrows show the looped 'Draft-Rehearsal-Feedback' process, which progressed to the Complete Work stage when both the composers and myself were satisfied.

These stages of the development are used as reference points throughout the discussion of each work. Due to variations in the process of creating each work, some stages are grouped together to support the flow of the discussion. The resultant framework was established:

- **Initial Development of the Manual**

Prior to meeting with the composers, I drafted a manual containing all the material I believed essential to the composers. The material was initially developed through literature review and my own experience.

- **Initial Meeting**

The initial meeting was intended as an introduction to the cimbalom for the composers, and included demonstrations of standard and extended techniques. We discussed the initial development of the manual and composers suggested extra information that would be helpful. In addition to playing examples, I showed score examples to demonstrate the standard notation techniques. This meeting was a chance for the composers to ask questions about the instrument and to explore initial concepts for a work. The composers were given the opportunity to play the instrument in order to understand the basic physicality required to play the cimbalom. All collaborative meetings were audio recorded throughout the process with a Zoom Q3 HD.

- **Manual Adapted**

Following the feedback from the composers, I expanded the manual to include the material that they had suggested/requested, and an electronic copy of the manual was subsequently distributed to the composers.

- **Sketch(es)**

The composers then developed a sketch or multiple sketches for the work. In some instances this was a diagram of the structure, other times musical material, or a combination of the two.

- **Rehearsal**

I then rehearsed the sketch(es), assessing the playability and developing my feedback on the material, including my personal thoughts on what worked well and what could be further developed.



- **Feedback**

The feedback stage involved playing the rehearsed material for the composer, followed by discussion of their impressions, coupled with my feedback from the previous stage. We then explored future directions for the development of the work.

- **Draft(s)/Rehearsal/Feedback/Manual Adapted**

The first draft contained the majority of the material that would make up the work in a structured manner. This was developed by the composer as a result of our discussion about the sketch(es). Following the first draft was my rehearsal and another collaborative discussion to include further development, and this looped back to the second draft, rehearsal, feedback, and so on, until the completion of the work. During this phase, the manual was adapted with additional findings.

- **Completed Work**

This stage represented the development of the work to a point of satisfaction for the composer and myself, and also involved revisions to the score.

- **Rehearsal/Workshop/Manual Adapted**

The completed works were rehearsed and then workshopped with my co-supervisor, WAAPA percussion lecturer Tim White, who helped elucidate and articulate issues relating to interpretation and performance. Findings from this process were included in the manual.

### 3. Performance and recording of the new works

- **Performance**

The completed works were then performed. The performances generated feedback from the audience, which was reflected upon, and in some cases, generated impetus for further development.

- **Recording**

All works were recorded as a performance, and are found in Appendix #8, Chapters 2-6. All of the recordings were made with a Zoom Q3 HD in the percussion studio at WAAPA, with the exception of Mace Fancis' *Duet for Cymbalom and Stairwell*, which used a Zoom Q2, and a JVC HDD Everio camera. The recordings were edited together with performance video footage using a

MacBook Pro and the iMovie '11 software. With the exception of Mace's work, which was recorded in a live performance, the works were recorded in the studio to allow for a close-up camera view of the performance.

The unfolding process was actively documented using digital photographs, journals, score drafts and revisions, video and audio recordings. These allowed me to reflect upon my performances, provided clarity, and articulated the findings for me during the creation process. Analytical and critical reflection on the process assisted in editing the works.

- **Analysis**

I analysed the completed works in two main ways: musically, and in relation to the specific applications for the cimbalom. The compositional analysis examined traditional parameters of pitch, rhythm, harmony, dynamics, and structure. The analysis relating to the cimbalom explored the use of different techniques, highlighting the unique cimbalom-qualities of each work. To provide a contextual analysis for the works, they were compared musically and technically to the reviewed repertoire.

Throughout the duration of the project, I was immersed in daily practice, both technical and exploratory. As I have spent the majority of my cimbalom-playing years in the relative isolation of Western Australia, I have learnt to rely on intuition, reflexivity, and critical reflection, in lieu of a full-time cimbalom teacher or cimbalom community. In the same way I rely upon my instincts to develop my performance practice, my practice shaped and was shaped by the research project.

The practice as research is identified as a 'generating' instrument. Research processes are tailored to respond to practice and practice to research, continually re-orientating itself to refine the research question through reflexive processes. (Gray & Pirie in L. Adams, 2008, page 17)

## **A Musician's Life**

In addition to the performances and recording of the new works, I was also largely influenced through my musical activity in-and-around the research. I

experienced a number of significant events, performances, and arrangements, examples of which included:

- the purchase of a concert-sized and concert-quality cimbalom, made in Brno, Czech Republic, by Pavel Všíanský;
- further study in Hungary with Viktória Herencsár and Jenő Lisztes;
- attending the 11<sup>th</sup> CWA international conference in Budapest, Hungary in 2011;
- performing Zoltán Kodály's *Háry János Suite* with WAAPA's Faith Court Orchestra, the most performed work in the orchestral cimbalom literature;
- performing in a series of concerts with WAAPA's Defying Gravity percussion ensemble, including my own arrangements of traditional, classical, and contemporary music for the cimbalom;
- preparing a solo cimbalom recital for Musica Viva;
- composing and performing a work for marimba and string orchestra;
- composing a work for cimbalom and string orchestra; and
- preparing performances of traditional folk music with Australian and Hungarian musicians.

The experience of working through a variety of repertoire in these concerts allowed me the opportunity to experience the cimbalom in a variety of contexts, from solo, to chamber, to orchestral. Through these compositions and arrangements, I further developed my understanding of the strengths and idiosyncrasies of the cimbalom.

In this Chapter I have expanded upon the methodology employed in this project. The combination of practice-led research and phenomenological approaches has resulted in an extensive and detailed investigation into the process and the outcomes of the stages of creation, development, performance, and recording; these are discussed in the following Chapter. My interaction with the research was highly subjective in nature, and to provide a further understanding of my practice as a musician and researcher, the bodies of knowledge that I draw upon were detailed.

The three major sections of the process were explained, highlighting the methodological approach within each of these sections as well as a list and explanation of the methods used. An interactive framework that encapsulated the research process was shown and discussed, and this framework is vital to the explanations of the works in the following Chapter, as the steps of the framework serve as guide points along the path. Whilst the specific nature of developing each work varied, these guide points were common to each process, and allow for a unified approach to the analysis of the works. Finally, my extra-curricular activities were explained, to give an indication of my developing practice occurring adjacent to the research project.

This concludes the discussion of the methodology, and the specific methods used to pursue this research. The following Chapter details the process and outcomes, and charts the developments of the manual, and the works from concept to performance.

## Chapter 4: The Major Project

This Chapter details the creation of the manual, and five new Australian works for the Hungarian concert cimbalom. The five works are discussed separately, in the order in which they were completed. Each work is discussed using the following framework:

- an overview of the composer's background;
- a progressive discussion of the development of the work, from the initial development through to the final performance and recording, with attention drawn to the most significant events during this process;
- the impact of working with the composer on the material in the manual;
- an analysis of the structure and material in the work; and
- finally a reflection upon the rehearsals, performance(s), and recording of the completed piece.

### The Manual

Appendix #1 Manual

Appendix #8 Chapter 1 Video Component

The major project began with the initial development of the cimbalom manual. This served as a tool for composers, and was realised through archival research into the extant repertoire, and supplemented with my practice and experience.

I combined aspects from the method books and orchestration guides discussed in the Literature Review in Chapter 2, supplementing them with techniques I had not seen addressed in any of the material. This information was a combination of knowledge from the extant repertoire, recordings, and my own investigations. Extended techniques had not been covered in any detail in the existing books and guides, and I addressed this with detailed sections regarding playing with the hands, the use of non-traditional cimbalom mallets, four-mallet technique, playing the un-tuned side of the strings, glissandi, muted notes, playing the body of the instrument, possible volume with different mallets, and the attack time of the cimbalom compared to other instruments.

My desire to create the manual for composers was inspired by the numerous questions that I had asked my teachers when I began learning the instrument, and the questions I had received myself from musicians who had never encountered the instrument. My intention for the manual was that it would be as comprehensive as possible, containing fundamental information such as the range and basic principles of the cimbalom, through to the possibilities of various standard and extended techniques. After reviewing numerous orchestration guides, I was aware of the minimal amount of information presented regarding the cimbalom, an instrument that was sometimes ignored altogether. I used the information regarding the common instruments in the orchestration guides, such as the violin, as a guide for the nature of the material included and the manner in which it was presented.

The method books reviewed were very helpful, as they were designed for the novice cimbalom player, and included a number of insights into techniques and essential information for cimbalom performers. I used these elements and combined them with the information I had garnered from the orchestration guides to create the first draft of the manual. This was supplemented with techniques and concepts I was familiar with through my experience as a percussionist and cimbalom player. Examples of these included the simultaneous use of more than two mallets, playing the body of the cimbalom in a percussive manner, the possibilities of different percussion mallets, and an adaptation of a rimshot, which I termed a cimshot.

This development of the manual began before the initial meetings with the composers, and the contents were shown to them and discussed during this meeting. The manual was developed further, based upon their immediate feedback and suggestions for development. I distributed the revised manual for their use in the compositional process. The manual was adapted throughout the collaborative process to include the findings from the developing works, and this is addressed in the following discussions within the context of each work.

## The Works

The following discussions of the works make use of the materials that documented the collaborative process, including excerpts from my journal, personal communication between the composers and myself, sketches and multiple drafts. Whilst numerous excerpts from the sketches and drafts are used, only the final draft of each score is included in the Appendices (#2-6).

A studio recording of each work is also included in the Appendices (#8, Chapters 2-7), with the exception of Mace Francis' *Duet for Cimbalom and Stairwell*, which was recorded in a live performance. All of the works were performed in concert over a number of events at WAAPA (see Performance Listing, Appendix #7).

I interacted with each composer through my roles as:

- a researcher, seeking their input on potential uses and approaches to composing for the cimbalom;
- a composer, drawing upon my experience as a composer and arranger to discuss my perceptions about the musical material within the works;
- a performer, offering practical performance solutions to concepts presented in the works, and suggestions based upon my view of the work in a performative sense;
- a point of information, providing fundamental and extended information through the manual and in person; and as
- a commissioning body, keeping the works on track and on time.

In this way, I feel the works were truly created in collaboration, though the extent to which this occurred varied between the works. For example, I acted more as a composer in Elizabeth Bonny's *Erre L'Otmito*, Johannes Luebbers' *things are not always as they seem*, and Mace Francis' *Duet for Cimbalom and Stairwell*, than in Christopher de Groot's *Mutant Telescope*, and David Pye's *The Isolation of Zoltán Szőlősi*.

## 1. *Duet for Cimbalom and Stairwell* by Mace Francis

Live Performance (Appendix #8, Chapter 2)

Score (Appendix #2)

Completed September 2012. Premiere performance 19<sup>th</sup> September 2012, second performance 21<sup>st</sup> November 2012. Both performances at the Western Australian Academy of Performing Arts.

### **Mace's Background**

Mace Francis (b. 1978) is establishing himself as a predominant figure and advocate for original Australian big band music. Originally from Victoria, Mace has been based in Perth, Western Australia since 2000. He has worked extensively with his own big band, the Mace Francis Orchestra (MFO), recording five original albums, touring nationally four times, and collaborating with leading international artists. Since 2008, Mace is the artistic director of the WA Youth Jazz Orchestra.

Mace's compositional output has been primarily for big band, including original compositions and arrangements. In addition he has written a number of works for chamber ensembles. Mace's compositional style generally focuses on melodic development in the context of modern big band composition. These works always feature an improvising musician with the notated work.

### **Overview**

*Duet for Cimbalom and Stairwell* is a site-specific work that was developed over a period of nine months, with the majority of the rehearsals and revisions over two days in preparation for the first performance.

Mace has a compositional interest in site-specific works: music written for a specific performance location, chosen for particular sonic or aesthetic qualities. For this work, a stairwell was selected at the Edith Cowan University Mt Lawley campus for its highly reverberant space and eight second sonic decay. The stairwell was located in a building with three floors: ground, first, and second, which I will refer to as ground, middle, and top. The dimensions of the stairwell



are approximately 6m x 6m x 10m, and the surface is exposed concrete with tiled walkways. The railings are metal, with hollow handrails and solid balusters (vertical posts).

The following images (Figures 4-9) show the stairwell from the ground floor to the top floor:



Figure 4: Stairwell view of the ground floor from the landing between the ground and middle floor.



Figure 5: Stairwell view of the middle floor from the landing between the ground and middle floor. My small cimbalom is pictured, awaiting setup in that position.



Figure 6: Stairwell view of my small cimbalom in the performance position on the middle floor.



Figure 7: Stairwell view from the middle floor. Mace's initial playing position is marked with a red arrow, his second position as he descends the stairs marked in orange, his final position marked in green, and my constant playing position marked in blue. The oval windows shown do not open, making the environment closed.



Figure 8: Stairwell view of the top floor from the landing between the middle and top floor. Mace's initial playing position is marked with a red arrow.



Figure 9: Stairwell view from the top floor. As above, the red arrow is Mace's initial position, the orange his second, the green his final, and the blue my constant position.

Mace was interested in: the sound of the cimbalom; how its sound interacted with and was modified by a particular space; and the sounds available in the space. I was curious about the concept of playing in a non-traditional performance venue, as it directly related to one of the main themes of the

research: the desire to use and view the cimbalom in non-traditional ways. The work would be a duet for Mace and myself, with Mace eliciting sounds from the structures within the stairwell through percussive techniques and bowing, and myself playing cimbalom. This concept of a duet for the cimbalom and a specific space was very exciting, as I had not seen any examples of this writing in the extant cimbalom repertoire.

## **Development**

### **Initial Meetings**

The development of *Duet for Cimbalom and Stairwell* began with an initial meeting where we did not discuss a site-specific work: this idea came up at a meeting several months later. We met at the stairwell, and Mace played examples of the sounds he had discovered: hitting the railings (horizontal handrails and vertical balusters) for a percussive effect, rolling on the handrails with soft mallets to produce a low-pitched drone, and bowing the balusters to produce specific pitches (see Figure 10). We both experimented with different sounds and effects, an area I felt quite comfortable with through my experience working with percussion instruments. Beyond the multitude of sounds produced by the railings, there were interesting sounds produced by the windows, doors, and other fixtures in the stairwell. Of these effects, the slamming of the door, the various sounds of the railings, and the ability to produce three distinct pitches by rolling on the handrails (A, Bb, and F), influenced the work greatly. We discussed the possibilities for the cimbalom part, with these pitches providing a harmonic basis for the material. Due to the long sonic decay of the space, we felt that sparse musical material would be effective, providing an opportunity for sounds to decay. This was explored in the first sketch.



Figure 10: Mace Francis testing the space by bowing a baluster.

### **First Sketch**

I took my small cimbalom to our next meeting, which was also held in the stairwell. We wanted to hear it in the space and to play through the first sketch. The cimbalom produced an extremely clear tone that could be easily heard throughout the stairwell. The reverberant nature of the site made it difficult to differentiate between notes played with and without the pedal depressed. The decay of each note was especially pronounced with the stairwell serving as a resonating chamber, effectively becoming an extension of the cimbalom's sound box. I see this emphasis on the decay of the sounds as the most important conceptual aspect of the resultant work. The shift in focus from the rhythmic structures of melody, which on the cimbalom and similarly struck instruments is based primarily in attack, to the decay of the melodic articulations was a compositional approach that I had not experienced to this degree in any other work, cimbalom or otherwise.

The material in the first sketch was based on the three pitches that Mace could elicit from the space, A, Bb, and F. The opening two lines featured what Mace called “F minor(ish)” phrases (Figure 11) over an F minor arpeggio, and an F drone rolled on a banister. This writing was very melodic, and reminiscent of some Eastern European folk music through the use of predominately Locrian-modal material over a drone. The first bar of the fourth system hinted at a more gestural style of composition, which evolved in the complete work. The pattern in the second and third bars of the fourth system was the only melodic pattern to remain in the completed work (Figure 11).

As I played through the score sketch, Mace experimented with the addition of sounds created by the stairwell, both complementary and contrasting. He had written rough markers, such as the indication at the top of the second page (Figure 12) “over Bb rail”, but continued to experiment with the exact rhythms and sounds he played. After playing through the sketch, we improvised on each other’s “instruments”. This allowed me to move around and experience the sound of the cimbalom from all parts of the stairwell, and to hear how clearly the instrument projected in the space. From this, I was aware I could play at an extremely soft dynamic and still be heard. For me, this is very similar to the concept of ‘stepping back’ from a work that I am conducting during a rehearsal, which allows me to gain some physical and aural distance from the ensemble. I find this ‘stepping back’ to be an invaluable rehearsal method as it allows me an insight into the experience of an audience. Through this I am able to see and hear things more objectively, as I can widen my focus to the total experience of the performance.

One of the major strengths of this sketch was the interaction between the cimbalom and the low pitch drones played on the banisters. The pronounced decay of the space allowed us to create a blending between the sound of the cimbalom and the stairwell, which was especially effective when both instruments played the low drone notes simultaneously. This concept was further explored in the first draft.

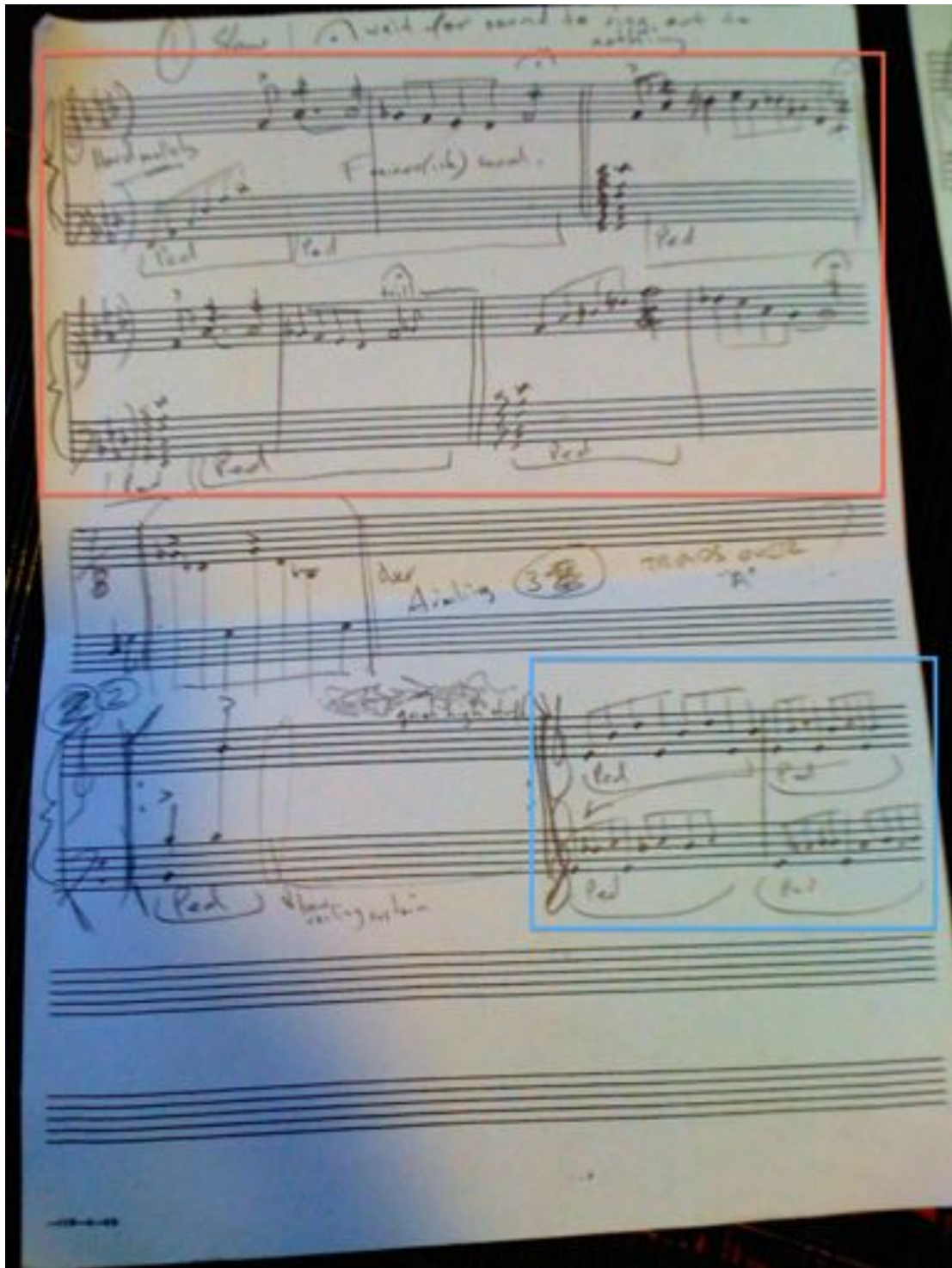


Figure 11: First page of the first sketch for *Duet for Cimbalom and Stairwell*. The material over the low F drone is boxed in red. The blue box shows the only pattern that remained in the final work.



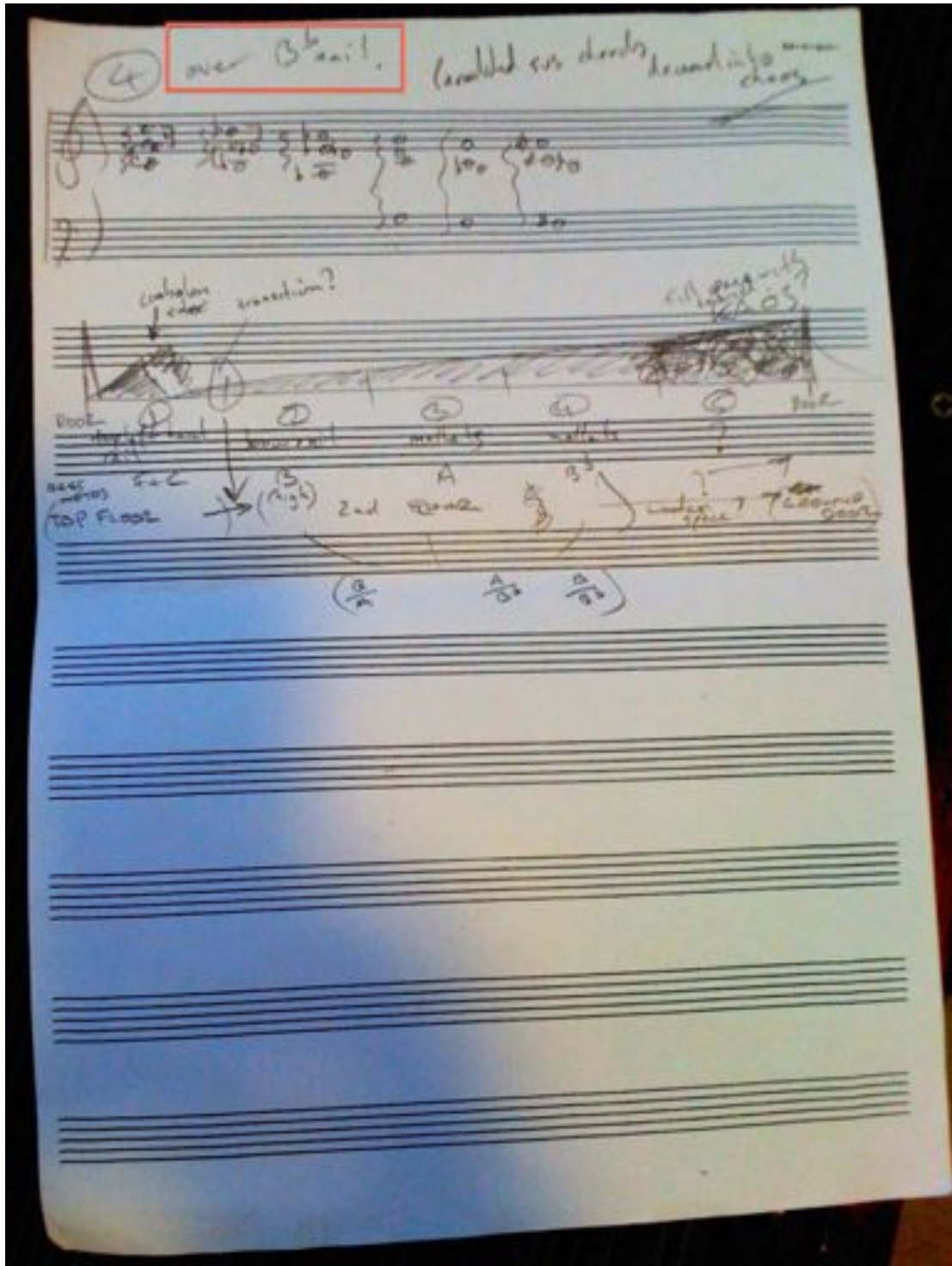


Figure 12: Second page of the first sketch for *Duet for Cymbalom and Stairwell*. The Bb handrail indication is boxed in red.

**First Draft and Completed Work**

We rehearsed the first draft on the day before the premiere performance. It was interesting to see the development from the sketch to the draft, as the majority of the cymbalom part had been reworked. The first draft was in three main sections:

a sparse opening featuring the introduction of the cimbalom and the stairwell; a second section where the two instruments began to play together and in alternation; and finally a third section with a cimbalom ostinato with interesting stairwell sounds on top.

The image shows a musical score for two instruments: 'mace francis' and 'Mallets - (position 1)'. The score is divided into two systems. The top system, for 'mace francis', starts with 'bar 1' and 'medium/soft mallets'. It features an eight-note pattern in the right hand, highlighted in a red box, with a tempo marking of quarter note = 100 and dynamics of *pp* and *mf*. A blue box highlights a gestural figure. The bottom system, for 'Mallets - (position 1)', starts with 'Door Slam (3rd floor)' and 'ff'. It features an eight-note pattern in the left hand, highlighted in a red box, with a tempo marking of 'A Tempo' and dynamics of *pp*, *f*, and *subp*. A blue box highlights a gestural figure. The score includes various musical notations such as notes, rests, and dynamic markings.

Figure 13: Opening of the first draft showing the eight-note pattern in red boxes, and the gestural figures in blue.

The opening of the first draft was based on an eight-note pattern as seen in red boxes (Figure 13). This pattern was broken up by gestural figures as seen in the blue boxes. The melodic material was centred on F, as this was the pitch Mace was playing, marked as “position 1” in the score. The written directions for the stairwell part were minimal, with rolled banisters in different positions for the majority of the piece. During the rehearsal, I wanted more from the stairwell part, because I felt that if we were to perform a duet, the parts should have a fairly equal amount of material. I suggested that Mace play a version of the cimbalom’s eight-quaver pattern on the railings to establish an immediate connection between them. Conceptually I appreciated this echo-like phrase as it related to the slow decay of the space, with the delayed echo exaggerating this slow decay. Figure 14 shows the revised score with the eight-quaver pattern

presented in the cimbalom, then played in the stairs, and echoed by the cimbalom.

The image shows a musical score for two systems. The first system is labeled 'bar 6' and 'A Tempo'. It features a piano part with a bass clef containing an eight-quaver rhythmic pattern. The dynamics are marked as *pp*, *f*, and *subp*. The percussion part includes 'Mallets - (position 1)' with notes, 'ad lib ralling' indicated by diagonal slashes, and 'Hard percussive sounds' marked with 'x' symbols. Dynamics for the percussion range from *pp* to *mf*. The second system continues the piano part with dynamics *pp* and *mf*, and includes a section with a *f* dynamic. The percussion part continues with notes and dynamic markings.

Figure 14: Eight-quaver rhythmic pattern in the cimbalom and stairs parts from the completed score.

There was a significant moment of serendipity during the rehearsal after the decision to increase the complexity of Mace's part. Mace was experimenting with adding extra notes as I was playing through the draft, and whilst playing the first eight-quaver phrase softly, Mace played a note that lined up exactly with the final note. This collision was completely unintentional, as Mace and I could not see each other due to our playing positions on different floors. The resultant sound was highly effective, as I felt the collision on the final note of my phrase showed a point of unison between the parts, and simultaneously created a surprise as the sound changed dramatically in both dynamic and quality. This was included in the complete work (the red box in Figure 15).

**Duet for Cymbalom & Stairwell**

mace francis

bar 1  
Tune lowest D down to Bb  
medium/soft mallets

♩ = 100

*pp* *mf*

Door Slam (3rd floor)  
*ff*

Mallets - (position 1)

A

Figure 15: Revised opening to include the collision of the two parts. From the completed score.

The second section of the first draft began with repeated quavers on F, which evolved to include the neighbouring semitones (section E in Figure 16). During this, Mace had to move from the top floor to the middle floor to be ready to play in his second position. I had the idea that both instruments could play together during this section to serve both a musical gesture and to provide the impetus for Mace's movement. As a musical gesture, the unison showed a development in the material, as the cymbalom and stairwell largely alternated in the first section, and now they played together. We settled upon Mace hitting each baluster as he moved down the stairs in the same quaver rhythm as the cymbalom. The slight pitch variations in each baluster also connected well with the broadening of the F with the inclusion of the neighbouring semitones. This development created an extra sense of theatre in the performance, as Mace's progression down the stairs was visually interesting and it was also possible to see the growing intensity as he reached the final baluster. For the completed work, I timed my part to finish with Mace's last note, and changed the dynamic contour so as to allow the sound of the cymbalom to grow out of the percussive sound of the struck balusters. Figure 16 shows the initial material, and Figure 17 shows the reworked passage.

2 **D** bar 22

Harder Mallets **E** Tempo ♩=120

*mf* *f* *mp* *mf* *pp*

Mallets - (position 2)

*f*

Figure 16: Beginning of the second section from the first draft.

bar 30 Tempo ♩=50

Harder Mallets **E**

*pp* *f* *f*

Stick on hand railing descending stairs

Mallets - position 2

Figure 17: Revised beginning of the second section from the completed score.

The second section ended with a trading of rolled Bbs between the cimbalom and the railings, creating an overlapping series of waves. The original cimbalom part was written for the standard lowest Bb on my cimbalom (see Figures 18-19), but I thought it would blend better if it were the octave lower (Figure 20), so I detuned my lowest note to the Bb below the bass clef. In the interest of portability I had taken my smaller cimbalom, and thus my lowest D was dropped to a Bb. The detuning to the low Bb was noted in the complete work (Figure 15). I then included this in the manual, as a possibility of extending the range (page 14, Appendix #1).

try to blend with each others sound  
play out of time (percussion to cue)

bar 34

**F**

The image shows a musical score for four staves. The top two staves are a grand staff (treble and bass clefs). The bottom two staves are a percussion staff with diamond-shaped notes. The score covers four measures. The first measure is marked with a large 'F' and the instruction 'try to blend with each others sound play out of time (percussion to cue)'. The notes in the grand staff are connected by a long slur, indicating overlapping rolls. The percussion staff has two groups of notes, labeled '1' and '2', corresponding to the first and second measures of the grand staff.

Figure 18: Overlapping rolls from the first draft showing the Bb which was moved down an octave in the complete work.

bar 38

3

The image shows a musical score for four staves, continuing from Figure 18. It covers four measures (bars 38-41). The grand staff continues with overlapping rolls. The percussion staff has two groups of notes, labeled '3' and '4', corresponding to the first and second measures of this section. A page number '3' is in the top right corner.

Figure 19: Overlapping rolls from the first draft example continued.

try to blend with each others sound  
play out of time (percussion to cue)

bar 40 **F** 3

The image shows a musical score for three staves. The top staff is a grand staff (treble and bass clefs) with a treble clef on the left and a bass clef on the right. The middle staff is a single bass clef staff. The bottom staff is a single bass clef staff with six numbered markers (1-6) above it. The score includes various musical notations such as notes, rests, and dynamic markings. The text 'try to blend with each others sound' and 'play out of time (percussion to cue)' is written above the staves. The number '3' is in the top right corner. The number '40' is next to a box containing the letter 'F' at the start of the first staff. The bottom staff has six numbered markers (1-6) above it, corresponding to six groups of notes.

Figure 20: Overlapping rolls from the complete work with the Bb an octave lower than in the first draft.

The third section of the first draft (see Figure 21) was based on the material from the first sketch (see the blue boxed bars in Figure 11). The material was largely unchanged, with a slight rhythmic variation from the pattern in the first sketch. The stair part featured bowed balusters, with Mace eliciting high harmonics over the cimbalom pattern. We removed the indication for the cimbalom part to be an octave higher the second time, to keep the tessitura of the two parts separate, allowing the harmonics to continue to sit above the cimbalom part.

**G** New Tempo  
bar 46  $\text{♩} = 50$

The figure displays a musical score for a piano and mallet instrument. It is divided into three systems. The first system, labeled 'G', begins at bar 46 with a tempo of quarter note = 50. The piano part features a melody starting with a *pp* dynamic. The mallet part includes a long note with a swell and a performance instruction: "continue volume swells" followed by "eventually change to position 3 (bow)". The second system continues the piano melody with some triplet markings and the mallet part with a long note. The third system, labeled 'H', shows the piano part with a melodic line marked "8va and x" and the mallet part with a long note and the instruction "ready for quick change to position 2 (mallets)".

Figure 21: Opening of the third section from the first draft.

The first draft ended with a door slam (Figure 22), the same way in which the piece began (Figure 15). Mace decided to abandon this ending for reasons of practicality and aesthetics: he didn't want a break in the atmosphere as I moved down the stairs to finish the piece. Conceptually I think this ending provided a pleasing sense of closure by mirroring the start of the piece, but the reworked ending (Figure 23) was also effective, as it featured the sound of both the cimbalom and stairs fading into nothingness.



4  
bar 59

to ground floor door  
open quietly and slam shut loudly to finish

poistion 2  
volume swells until cimbalom is at door

Figure 22: Door slam from the ending of the first draft.

4  
bar 65

poistion 2  
volume swells

Figure 23: Revised ending from the completed score.

### Live Performance

The draft was reworked to reflect the changes we had made in time for the performance the following day. The performance was to a small but very enthusiastic audience. The nature of the space suited a small audience and they were invited into the stairwell from the ground floor and positioned themselves on the stairs between the ground and middle floors. The placement of the audience in this position was for two reasons: the middle and top floors were needed for the performers, and the audience would have the most balanced experience of the total sound being as far away from both players as possible.

The audience were very appreciative of the performance and we received some very positive feedback. One of the most significant comments that I received was from a person who said the work had created a different listening experience that they had not experienced before, and gave the impression of hearing music *inside* an instrument (personal communication 19<sup>th</sup> September 2012). This

comment beautifully articulated the focus of the piece: the fusion of the cimbalom and the stairwell fixtures to create a hybrid instrument that resonated throughout the stairwell. For that reason I truly believe the audience and the performers were inside the instrument.

The recording included (Appendix #8, Chapter 2) is a live recording of the second performance of the work. This is the only recording made from a live performance of the work, and this was to attempt to convey a sense of the work performed in the space with an audience present, as the various sounds made by the audience contributed to the site-specific sonic material in the work.

### **Reflection and Conclusion**

Whilst the cimbalom part in the completed work was not technically demanding, the piece did succeed in presenting the cimbalom in a new light, as the use of non-traditional performance space allowed the audience and myself to experience the instrument outside of the conventional concert setting, and the shift in focus from the attack to the decay of the cimbalom's sound was a concept that I had not seen explored with such emphasis.

Musically, Mace's use of the cimbalom was effective and the material was well suited to the instrument. He exploited the extremes of the dynamic range (and selected a space where both extremes worked), and emphasised the long decay of the instrument that would otherwise be partially inaudible. The patterns he wrote were all easy to reproduce and cimbalom performers of a range of abilities would be able to play the piece. The obvious downside of a site specific work is the limitation of the performance possibilities, as the site is immovable and thus the work cannot be toured. There is the possibility to explore similar spaces throughout the world, however the exact particulars of this stairwell would unlikely be reproduced.

In some aspects this piece has been one of the most significant in this research project, as it has expanded my perception of the cimbalom, allowing me to hear it in a new way in a specific space. The process of developing the work with Mace

was also extremely rewarding, as I always enjoy making music with other musicians, and there was a liberating sense of freedom and openness that arose from the tight turnaround between the rehearsals and the performance. The completed work feels like a truly collaborative piece and I noted this in my journal:

*I find it interesting to think that I had a part in writing Mace's part, as playing a stairwell seems to be a very percussive experience, and was also struck by the beauty of the symmetry of Mace writing my part and me writing his part, a true duet in all senses. This really affirms the strength of working with other musicians when creating as they can hear and see things from outside your perspective and the work benefits from this objectivity (personal journal entry 26<sup>th</sup> September 2012).*

I am in two minds about developing a travelling version of this work, through the use of pre-recorded stair sounds or similar, as I would like to be able to share this work with others, however the idea of trying to replicate the experience in a different location goes against the spirit of a site-specific work. This could be a subject for further research and negotiation with the composer. There is a beauty in this ephemeral nature of the work, in the knowledge that the two performances of this work were for small audiences, and that the true experience of the work was lived in those moments, which will remain in my memory and of those who were present.

## **2. things are not always as they seem by Johannes Luebbers**

Performance (Appendix #8, Chapter 3)

Score (Appendix #3)

Completed October 2012. Premiere performance 19<sup>th</sup> October 2012 at the Western Australian Academy of Performing Arts.

### **Johannes' Background**

Johannes Luebbers (b. 1985) currently teaches at the Western Australian Academy of Performing Arts (WAAPA), lecturing in jazz arranging and jazz & contemporary aural. He is the president of the Perth Jazz Society, a member of the Australian Council for the Arts music board, and is co-founder of the independent new music label *Listen/Hear Collective*.

Johannes graduated from WAAPA in 2006 with a Bachelor of Music Honours majoring in jazz arranging and composition. His research project focussed on drawing influences from the music of Olivier Messiaen in a composition for jazz orchestra and pipe organ. As a composer/arranger, Johannes has written for a wide variety of settings: orchestral, big band, jazz orchestra, chamber, and solo.

His compositional style draws upon the harmonic language and improvised spirit of jazz, combined with a formal and compositional approach more derivative of contemporary classical music. There is also a popular music aesthetic, borne from Johannes' listening to and playing in many contemporary styles.

Johannes is an associate artist of the Australian Music Centre, and has received numerous awards for his compositions including the 2011 'Young Australian Jazz Artist of the Year' (Australian Jazz 'Bell' Awards) and the 2011 'Jazz Work of the Year' (APRA/AMC Art Music Awards). Johannes is also an active performer, playing piano in a number of ensembles.

## **Overview**

*things are not always as they seem* is a work for solo cimbalom. The work developed over eight months, and involved a number of collaborative meetings between Johannes and myself. I had enjoyed working with Johannes in the past, and had a great respect for his compositional style. I was very interested to see how he would approach the cimbalom, due to his background as a jazz pianist, and his experience with improvisation. The exciting aspects of collaborating with Johannes were the chance to explore the cimbalom in the context of extended jazz harmony, and the possibilities for rhythmic interest and improvisation.

## **The Manual**

### **Initial Meeting**

In our initial meeting, Johannes suggested an approach to further detailing the layout of the notes on the instrument, by notating what he called the *breaks*. This term is borrowed from woodwind instruments, referring to the point where the linear nature of the note layout is broken (Shackleton, n.d.). This is the transitional point between most (or all) of the fingers raised to all of the fingers lowered with the octave key applied. Despite the melodic closeness of the notes, the physical movement and dexterity required to play across the break is significant. This concept is very apparent to cimbalom players, as the non-linear layout of the upper half of the instrument means that pitches that are close together melodically, are not always located close physically. Johannes' suggested that I apply this concept to further clarify the layout of the pitches on the cimbalom by dividing the range into smaller sections. These sections would be in a linear sequence, meaning they would be easily played in groups. Figure 24 shows my division of the upper half of the cimbalom into seven sections, and Figure 25 shows the pitches within these sections.

### 1.3.2. The Steel Strings

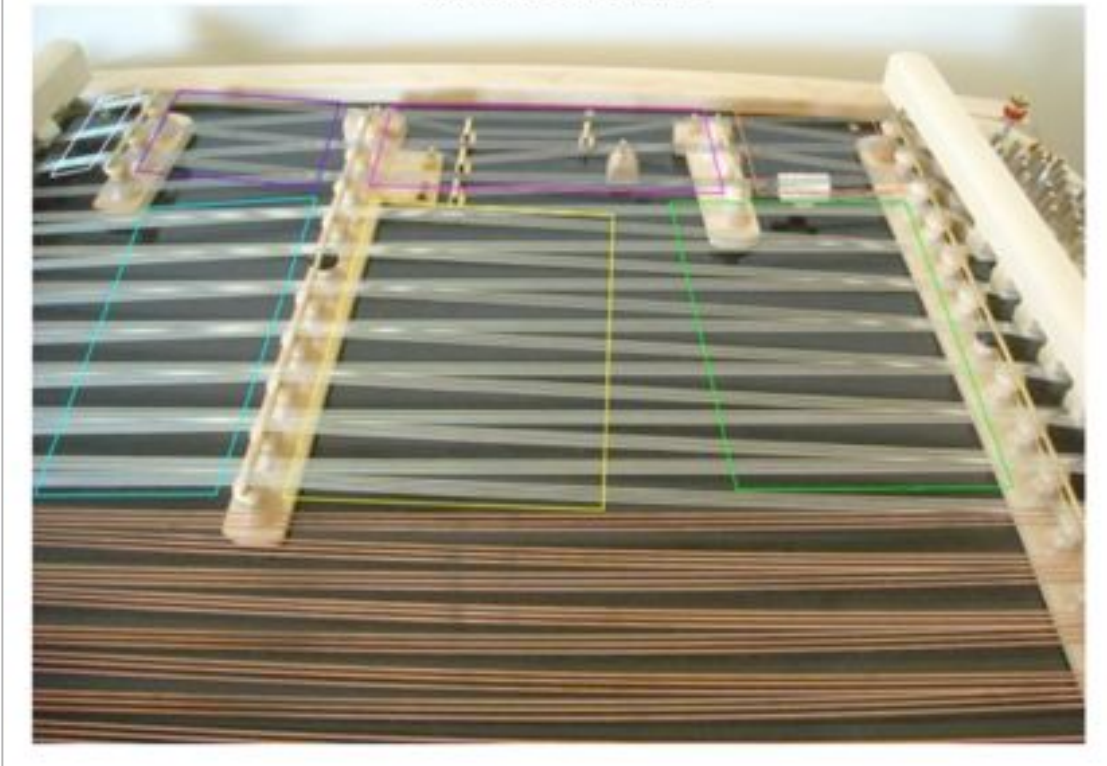
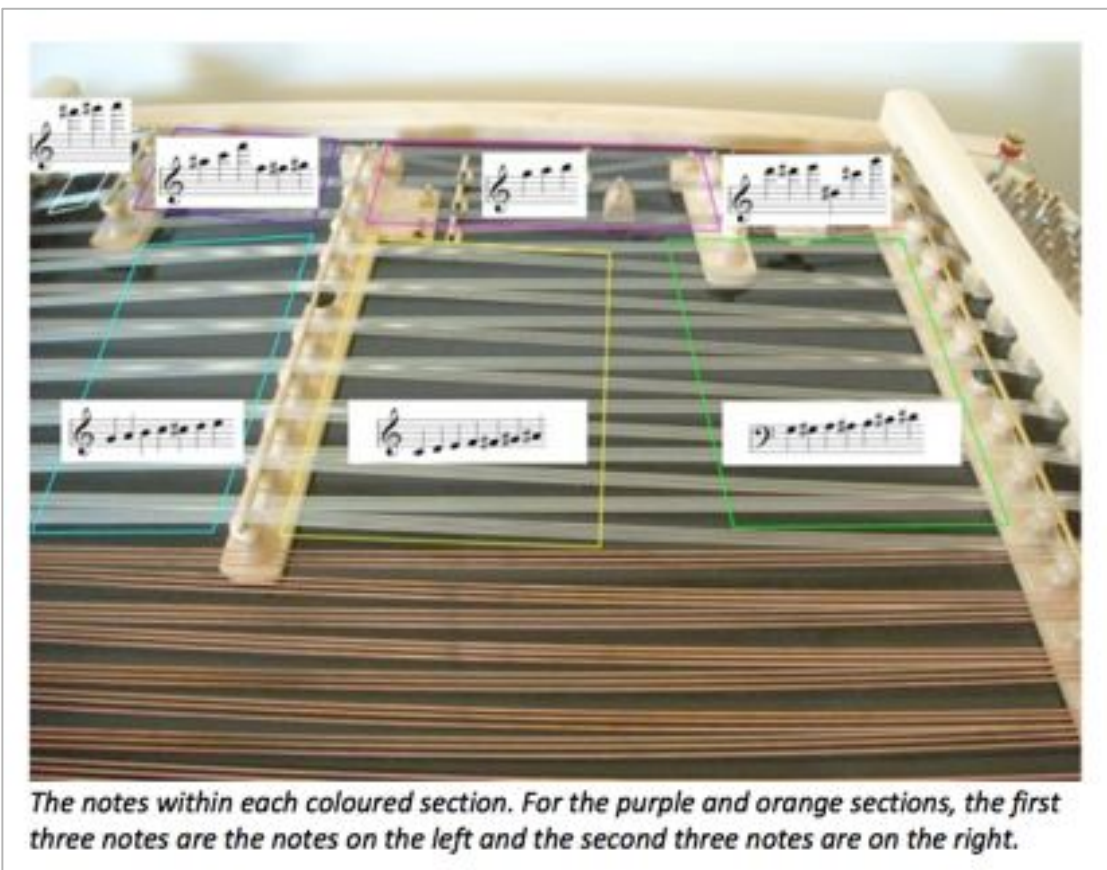


Figure 24: Visual representation of the breaks from the manual (page 10, Appendix #1).



*The notes within each coloured section. For the purple and orange sections, the first three notes are the notes on the left and the second three notes are on the right.*

Figure 25: Notation of notes within the breaks from the manual (page 11, Appendix #1).

I included these images in the manual, and this was a helpful addition to a standard layout diagram as it divided the layout into smaller and more understandable sections.

## **Development**

### **First Sketch**

The first sketch for the piece contained the musical material that would ultimately form the bulk of the complete work. The concept for the piece originated from a book entitled *1Q84* (2009) by the Japanese author Haruki Murakami (b. 1949). In the book, one of the characters starts to notice small differences in the world around them, and they begin to doubt what they had previously known. Johannes treats this idea sonically through slight variations in the thematic material in the work. This manifests itself in two main ways, semitone alterations to melodic material, and rhythmic variations. The intent of the alterations is to make the audience question whether they had heard the same motif previously or whether there was something slightly different.

Johannes began by looking closely at the layout of the notes on the instrument in the manual, to assess the playability of the material, but he found it very difficult to quickly find the notes and this slowed his process to the point of difficulty. He found it easier to write ideas, and for me to test the playability of these ideas. I completely empathise with the difficulty of locating specific pitches on the cimbalom, as this was one of the greatest challenges that I encountered in learning the instrument. Throughout this project, I found that I was able to play a valuable role with regard to advising on the issues of note layout and playability of various passages, because I was able to draw upon my embodied knowledge of the instrument to quickly assess the playability. As this was one of my first experiences working with composers in creating cimbalom works, this realisation affirmed the value of my contribution in the developmental stages of the works, through testing and generating ideas.

Johannes' use of the cimbalom was very pianistic, with clear melodic lines and accompaniment. Johannes' approach to melody is mainly through phrases that

dovetail one another, alternating and overlapping to create a seamless combination. By alternating between the melody and accompaniment lines, it is possible to play complex figures as the player can use both mallets for both lines. This is shown in Figure 26, with the melody in blue boxes, the accompaniment in red boxes, and the overlapping portions in green boxes. As demonstrated in Figure 26, the majority of the material is played in alternation.

Johannes' approach to the instrument with the use of dovetailing phrases is similar to the approach taken by Ferenc Farkas in second movement, *Marcietto*, of the work *Hybrides* for cimbalom solo (Farkas, 1995). There are two distinct musical lines present and when they are written in alternation it allows for both hands to be used to play both lines.

things are not always as they seem

Johannes Luebbbers

The image shows a musical score for a piece titled "things are not always as they seem" by Johannes Luebbbers. The score is in 4/4 time with a tempo of 120. It features two staves: a treble staff and a bass staff. The melody is highlighted with blue boxes, and the accompaniment is highlighted with red boxes. Overlapping portions are highlighted with green boxes. The score includes dynamic markings such as *mf* and *p*, and a "Ped." marking. The first system shows measures 1-4, and the second system shows measures 5-8.

Figure 26: Opening of the first sketch showing the interaction and alternation of the melodic and accompaniment lines.

Though Johannes had marked in the pedalling, predominately at the start of each bar, we experimented with different pedalling techniques, to explore the potential for different articulation and to support the melodic line. The dovetailing meant a number of the melodic lines anticipated the bar line and needed to be held over. Pedalling at the start of most bars effectively stopped



these notes and so I pedalled according to the requirements of the melodic line. Figure 27 shows an example from the opening of the first sketch, with the red boxes indicating the melodic notes that would be stopped short if the pedal was retaken at the bar line.

The image shows two systems of musical notation for piano. The top system is in 4/4 time, marked with a tempo of quarter note = 120 and a dynamic of *mf*. It features a treble clef with a melodic line and a bass clef with a supporting accompaniment. A red box highlights a group of notes in the treble clef across the first and second measures. Below the staff, a 'Ped.' line with upward-pointing triangles indicates pedalling. The bottom system starts at measure 5, marked with a dynamic of *p*. It also has a treble clef with a melodic line and a bass clef with a supporting accompaniment. A red box highlights a group of notes in the treble clef across measures 5 and 6. Similar pedalling notation is present below the staff.

Figure 27: Pedalling notation from the first sketch.

As a performer I enjoy the opportunity to make my own pedalling decisions, as there is the potential for a wide range of articulation, allowing for different renderings of the same work. I conveyed these thoughts to Johannes, and he removed the pedalling indications from the completed score. Following on from this, I made a note in the manual to this effect: “Pedalling indications are not always notated and can be left to the performer to interpret” (page 31, Appendix #1).

The first sketch contained a number of interesting approaches for the cimbalom, including the traditional use of arpeggios, melodies over rolled figures, and the inclusion of percussive effects. Arpeggios are a common technique on the cimbalom as it is largely impossible to play three-or-more note chords with two mallets. Johannes uses arpeggiation both as a written out figure, and as block chords. Figure 28 shows written out arpeggios, in this example an F7 chord with the ninth and sharp eleventh extensions. We experimented with the specific manner for playing the block chords in Figure 29, trying arpeggios, two pairs of

notes, and a combination of the two. My personal preference was to play the two bass clef notes separately and the two treble notes as a pair, as it emphasised the melody. These arpeggio and chord examples also highlight Johannes' use of extended harmony, as he creates a non-traditional cadence to the F major chord through the progression G(#11), Db(#5), Db maj7/Ab, Eb(#5)/G, F (Figure29).

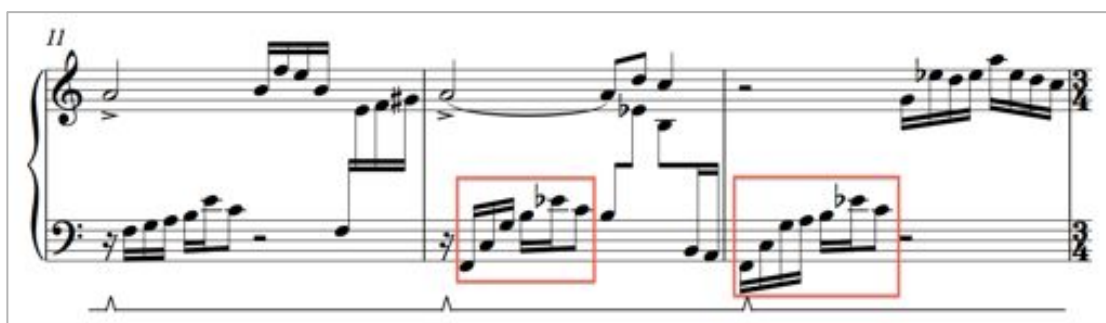


Figure 28: Written out arpeggios from the first sketch.



Figure 29: Block chords from the first sketch.

The possibility of a melody over a rolled note or notes was included in the manual (page 35, Appendix #1). Johannes used this technique in two areas in the first sketch, with further use in the subsequent drafts. This was used in a written out form (Figure 30) and as a rolled notation (Figure 31). The first example shows a written out trill-like figure in the red boxes and the melody in the blue boxes. This technique is very effective on the cimbalom as it creates the effect of two simultaneous lines. This technique is used similarly in Desző Erdélyi's cimbalom arrangement of Gioachino Rossini's *William Tell Overture* (n.d.).

Figure 30: Melody over a written out trill from the first sketch.

Figure 31: Melody over a roll from the first sketch.

The first sketch featured the brief use of extended techniques with two percussive effects. Johannes notated these effects with written directions, and we experimented with the best way to achieve his desired sounds. The first indication was to scrape, and the second to hit the side (Figure 32). The technique selected for the scrape was a quick swipe of the fingernails laterally across the bass strings, and the technique for hitting the side was hitting the far right bridge with the head of the mallet. The challenge with selecting these techniques was considering the playability as dictated by the rapid nature of the phrase. The selected techniques produced the desired sonic effect whilst being playable within the time constraints.

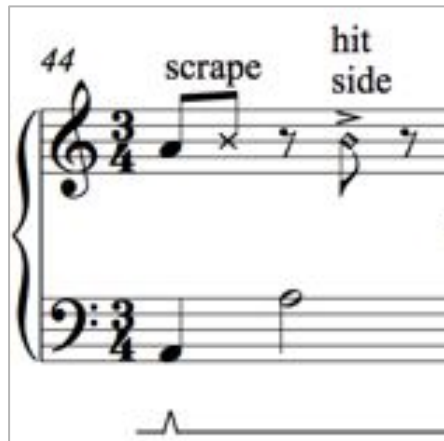


Figure 32: Percussive effect notation from the first sketch.

### Second Sketch

The second sketch was of a new section, with a focus on playing with the hands. It was in two parts: the first, a combination of one hand playing with a mallet and the other with the fingers, and the second, both hands playing with the fingers.

The first section (Figure 33) is based upon a 3/8 rhythm (crotchet plus quaver), which repeats and shifts across the 4/4 phrases of the hand using the mallet. This created rhythmic interest and this was one of the areas of Johannes' compositional style that I was interested in seeing applied to the cimbalom.

The second section (Figure 34) was played entirely with the hands and I found this to be the most interesting section of the work. Johannes again used a melody over rolled chords; both hands, each playing a pair of notes, create the effect of a rolled chord over which the melody sits. We experimented using the fingers in different ways, in order to allow both the rolls and the melody to speak clearly. Johannes' original idea was to have the rolls plucked with the flesh and the melody to be plucked with a fingernail. This created two distinct timbres and highlighted the melody, however it was difficult to execute the melody notes with the fingernail due to the time needed to prepare each note. This was cumbersome and unreliable at the target speed. I experimented with different techniques between our meetings, and found the most efficient solution was to flick/strum the melody notes with the nail. I aimed to contact all four strings with this technique to bring the melody out strongly. The time needed to execute this technique was less than plucking, my success rate was high, and the majority

of the time my hands were already in a favourable position. This sketch was a very interesting addition to the first sketch, and these were combined together in the first draft. This strumming technique was already included in the manual (page 23, Appendix #1), though the application of this technique only came about from the needs of the musical material.

41 *plucked with fingers*  
*p*  
*pedal ad lib.*

46

50

Figure 33: One hand using fingers, one hand using a mallet from the second sketch.

54 *plucked with fingers ('x' for nail)*

56

Figure 34: Both hands using the fingers from the second sketch.

### First Draft

The first draft was almost a complete version of the finished work, with a lengthening of the ending material in the second draft. The first and second sketches were combined, and new material (similar in theme to the first sketch) was added. An interesting area was the transition at the end of the hands material in bar 68. Johannes originally wrote an openly repeated bar, beginning with two notes played simultaneously and repetitively, which gradually metamorphose into two alternating notes (Figure 35). We experimented with this, and Johannes removed the first bar to leave the messy, unmeasured bar as the transition. To achieve a transitional effect, I moved from plucking the notes, as in the previous section, to drumming on the strings. This created an interesting sonic effect as the clarity of the pitch faded whilst the percussive sound of the drumming on the strings grew.

Another interesting technique used briefly was playing two adjacent notes with one mallet. The two instances of this technique are shown in the red boxes in Figure 35. This was a technique I had included in the first draft of the manual as a photograph (Figure 36). Johannes' use of two notes being played simultaneously by one mallet in bars 71 and 73, is similar to that of Igor

Iachimciuc in the *Toccantina* movement of the work *Suită Concertantă* (2004), and in *Ragtime* by Stravinsky.

The image shows a musical score for a piano. The top system, starting at measure 68, features a treble clef and a bass clef. The treble clef staff contains a series of notes with a slur above them, and the text "open - gradual transition from this to the next bar" is written above the staff. The bass clef staff contains a series of notes with a slur below them. The bottom system, starting at measure 70, is in 3/4 time and marked *mf*. It includes the instruction "sticks (both hands)" above the treble clef staff and "poco accel." above the bass clef staff. Two specific notes in the treble clef staff are highlighted with red boxes: a G3 note in measure 71 and a C4 note in measure 72. The score also includes a tempo marking of  $\text{♩} = 88$ .

Figure 35: Transition and double-note notation from the first draft.



Figure 36: Two notes played with one mallet photo from the manual (page 39, Appendix #1).

Whilst playing through the first draft, Johannes asked me to try some different ideas that were triggered by hearing the work played live, with the most notable developments including plucking, dead strokes, and pedalling. The changes were all made to increase the diversity of sounds presented and to further add character to the work. Early in the piece, Johannes wanted to create a timbral change and we decided upon plucking the melody with the fingernail over the repeated quaver bass pattern (Figure 37 red box). In the next section, he liked the sound of the lowest bass notes being played as dead strokes (strokes with no rebound), and related it to walking with a limp (personal communication 21<sup>st</sup> September 2012). The dead strokes (Figure 38) were not accented, but used to provide an extra colour and a slight variation in the attack, which correlated to the inspiration of the work of things not being quite 'right'. The many varied opportunities for pedalling choices was also an important area of our discussions to further develop the work, and Johannes left the pedalling decisions to me (including gradual depression/release and no pedal). He felt my pedalling was my interpretation of the work and he was open to other interpretations from other performers in the future, and as such removed the pedalling notations entirely.



Figure 37: Material played with a mallet that was changed to be plucked with the fingernail from the first draft.



Figure 38: 'Dead stroke' notation from the second draft.

The process of working with Johannes was very free, and he was always open to my input relating to technical and musical decisions. In this way he was very open to the impact of serendipity. In one particular serendipitous instance, as I read through one of the climactic cadences, I accidentally played the adjacent C6 in the execution of the final arpeggiated E(b10) chord. Johannes enjoyed the extra colour, and added the note and an extra G#6 above. Figures 39-40 show the first draft, and the subsequent second draft, which contains the added chord marked with a red box.

Figure 39: Climactic cadence from the first draft.

Figure 40: Climactic cadence from the second draft.

## Second Draft

The second draft featured a slightly lengthened ending from the first draft with the addition of three bars. Although the addition was small, it allowed for a variation of three of the patterns in the last section. In my rehearsal, I was struggling to find an interpretation of the ending material that I felt created a sense of closure for the piece. I experimented with varying the tempo, inflection, dynamics, and articulation, to find my ideal interpretation, and I noticed the final chord (Figure 42) contained only notes from the right side of the instrument. I tried muting the entire chord with my forearm and was very pleased to find that this was possible. Prior to this I had only muted up to four adjacent strings simultaneously with the fingers of one hand, in readiness to be played with the other. With this technique I placed my forearm along the right-sided chessman bridge (see Figure 41), in order to mute twelve strings in a line. I had not seen this technique used previously, and I see this as a serendipitous moment, as had the chord been made up of different notes, I would have remained unaware of this possibility. Johannes did not notate this in the final score, as once again he was happy for that to be my interpretation, but did not want to prescribe this as the definitive ending. Though this was not notated in the final score, I did include this technique in the manual as a text indication for the possibility of the use of the forearm to mute multiple strings (page 46, Appendix #1).

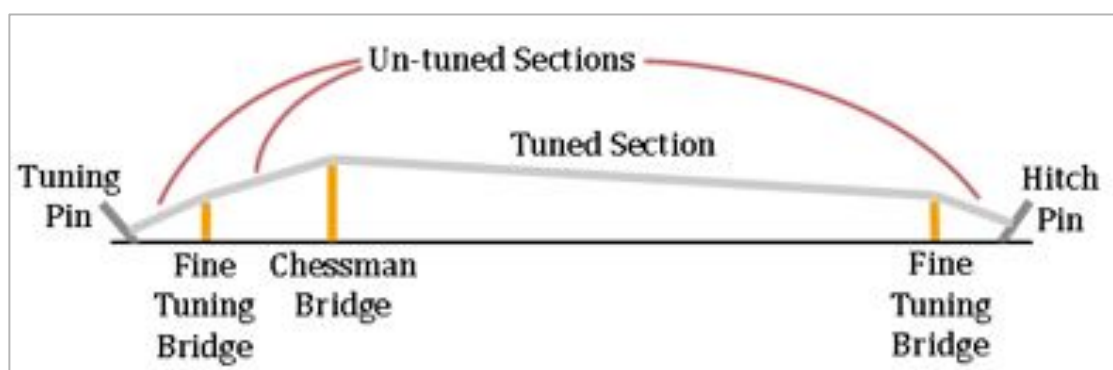


Figure 41: The various parts of the string diagram from the manual (page 11, Appendix #1).



Figure 42: Ending of the second draft.

An interesting note about the development of the work was Johannes' 'hands-on' approach to the compositional process. In one of our earlier meetings, when searching for the percussive sounds Johannes had written, I invited him to explore the sounds on the cimbalom. He enjoyed experimenting, so I delivered my small cimbalom to his studio, so he could continue playing between our meetings. Johannes' main interest in having access to a cimbalom was the ability to explore different hand playing techniques, as this was an area of particular interest. His dedication to the project, and his willingness to develop an understanding of the physical nature of the instrument was inspiring, as I shared his interest in new possibilities for the cimbalom. Johannes developed a few techniques with the hands that I had not seen performed, including a strummed note with one of the strings stopped at the harmonic point, creating a combination of the fundamental and an overtone. He also played a number of subtle effects including a dead stroke with the pedal depressed, which resulted in a slight bending in the pitch that was evocative of the sound of a didgeridoo call. I thoroughly enjoyed hearing Johannes playing ideas for me, as it broadened my understanding of the potential playing techniques for the cimbalom. The strummed/harmonic combination technique and the dead stroke played with the hands were included as text indications in the manual (pages 44 and 33 respectively, Appendix #1).

### Reflection and Conclusion

I found the process of developing the work, as well as the resultant work itself, to be very enjoyable. Johannes' writing for the instrument pushed me to develop my technique, and explored the cimbalom in the context of a song-like piece with an extended harmonic colour. As mentioned in the development, the section that

Johannes and I both thought was the most effective was the middle material featuring the hand techniques. This material was uniquely applicable to the cimbalom, as it was the one section that would not translate easily to another instrument, such as the piano. The combination of the plucking and strum/flick techniques allowed for a melody and chordal pad to occur simultaneously and I found the effect to be highly interesting and beautiful to hear.

We discussed the possibility of extending the piece with a focus on some of the hand playing techniques Johannes had worked on. We felt that the inclusion of further techniques had the potential to create great interest and diversity, yet were concerned that the piece would sound like a study in extended techniques, compromising the quality and effectiveness of the work.

A second movement in this work is planned for the future, as I am intrigued by the possibilities of playing with the hands, and I would be fascinated to see how Johannes would extend and refine the techniques we had used and discussed.

### **3. *Mutant Telescope* by Christopher de Groot**

Studio Recorded Performance (Appendix #8, Chapter 4)

Score (Appendix #4)

Completed October 2012. Premiere performance 15<sup>th</sup> October 2012 at the Western Australian Academy of Performing Arts.

#### **Chris' Background**

Chris de Groot is a composer and performer originally from Perth, now living in Melbourne. Christopher is a pianist and flautist, who also works with an array of acoustic instruments and analogue synthesizers. As a performer, he regularly works in a number of ensembles, from free improvised music with improvised theatre, to minimalist pop music, noise improvisation, and live film scores.

As a composer, Chris has a special interest in writing for films, working primarily with acoustic ensembles often in combination with electronics. He has utilised techniques such as recording directly to cassette tape, created Musique Concrète scores from acoustic recordings, and combined unusual instruments. In addition to his film scores, Christopher has written for solo instruments and chamber groups. He has a particularly affinity with the vibraphone.

Christopher's style of composition combines improvisation, noise, and changing timbre with elements of jazz, classical, and contemporary harmony.

#### **Overview**

*Mutant Telescope* was developed over nine months. I had worked previously with Chris on a number of occasions, most recently performing cimbalom for the recording of his score for the to-be-released Australian film *Sororal* (S. Barrett). The cimbalom parts for the film were Chris' first foray into writing for the instrument and we had some initial discussions about the particulars of the instrument. This conversation provided useful information for the first draft of the manual, as it highlighted the aspects of the instrument Chris needed information about. As the timeline for the film score was brief, Chris wrote the parts and asked me to check the playability. The parts sat well on the instrument,

and the basic information I had provided Chris was useful. The parts were straight forward, and I thought that with a more comprehensive manual, composers would be better informed to write more complex parts, especially being able to exploit extended techniques. This led to the idea and first draft of the manual. We discussed the possibility of exploring the cimbalom further in a solo piece, and Chris was very receptive to the idea.

*Mutant Telescope* is a work with two attacca movements, the first of which explores the concept of sympathetic resonances on the cimbalom, and the second centring on extended techniques using primarily the hands. The title relates to the palindromic accelerating/decelerating rhythms in the first half, which Chris thought of as telescoping rhythms going back and forth, in and out. The first movement features four main tone sets, which start high and move down the range of the cimbalom (Figures 43-46). Each set is coupled with different mallets (Figure 47), thus creating simultaneous timbral and harmonic shifts. Within each of the four tone set sections is a combination of written-out phrases and timed improvisations upon a slight variant of the tone set. The melodic material in the first movement is also largely palindromic, with some slight variation. The second movement evokes soundscapes, with a focus on the texture of the sounds created.

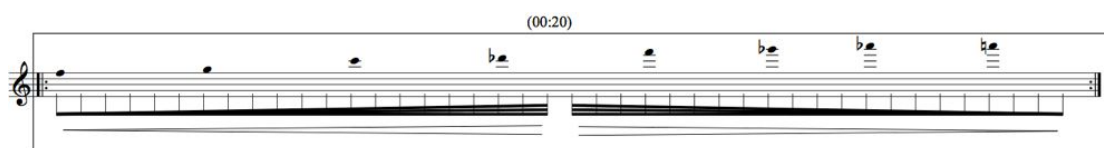


Figure 43: First tone set (high) from the complete work.



Figure 44: Second tone set (medium high) from the complete work.

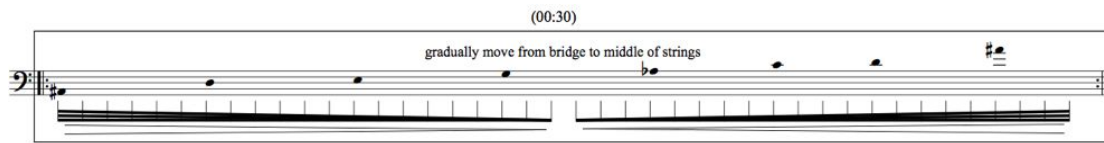


Figure 45: Third tone set (medium low) from the complete work.

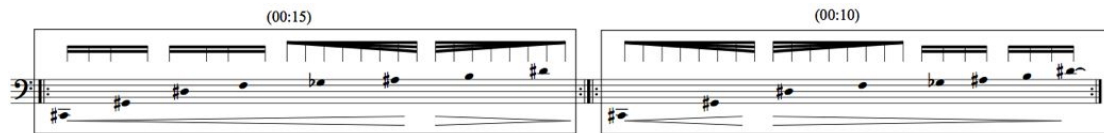


Figure 46: Fourth tone set (low) from the completed work.



Figure 47: The various mallets needed to perform *Mutant Telescope*.

## Development

### Initial Meeting

Chris was very interested in the idea of eliciting sympathetic resonance from the cimbalom, and this ended up being the main focus of the first movement. Sympathetic resonance on the cimbalom refers to the vibration of the strings as a result of other strings being played. This sound is one of the defining cimbalom

characteristics due to the nature of the pedal mechanism; as the pedal must be depressed before a note is struck to allow it to resonate freely, all of the strings are un-dampened before any note is played. The resultant effect is sympathetic resonance in the un-played strings, a significant factor in the cimbalom's timbre. This effect can be achieved on the piano in the same manner; however, this can also be avoided, by holding down the key or depressing the pedal after a note is struck. This is due to the piano key mechanism, which operates individual dampers contrary to the action of the hammer.

### First Sketch

The pedalling was very basic, enabling sympathetic resonance in the instrument, with the majority of the first movement requiring one pedal through each tone set as in the following example (Figure 48).



Figure 48: Pedalling example from the first sketch of *Mutant Telescope*. Note the long pedalling indication. The semiquaver sextuplets should be demi-semiquaver sextuplets.

In addition to eliciting sympathetic resonance, Chris was interested in the use of tone sets, repeated rhythms, and changing mallets. The first sketch contained most of the material from what would ultimately be the first movement of the complete work, with written-out accelerating and decelerating rhythms (Figure 49). The intended effect of the rhythms was to create acceleration and deceleration and I felt this was best represented through the use of feathered beams. This is a notation used in the marimba works *Ilijaš* (Živković, 1996), and *Ultimatum 1* (Živković, 1995), by Serbian composer Nebojša Jovan Živković (b.



1962). The following examples show the initial written-out rhythms from the first sketch (Figure 49), to the feathered beams of the second sketch (Figure 50).



Figure 49: The written-out accelerating and decelerating rhythms from the first sketch. The semiquaver sextuplets should be demi-semiquaver sextuplets.



Figure 50: The use of feathered beams to indicate the accelerating and decelerating rhythms from the second sketch.

The resulting rhythm created by the feathered beams was reminiscent of the rhythm applied to large arpeggios across the range of the cimbalom in traditional Hungarian folk music, as described to me by Jenő Lisztes (private lesson 2<sup>nd</sup> October 2011). Lisztes had described a traditional manner of playing an arpeggio was to begin slowly in the bass register, speed up in the middle, and slow down at the top. Whilst this did not inform the rhythms in *Mutant Telescope*, I appreciated the correlation as an unintentional reference to the traditional cimbalom practices. These palindromic rhythms were the predominant rhythmic feature in the first movement, phrased as slow-fast-slow or fast-slow-fast.

The melodic phrases were similarly palindromic, with each phrase played forwards in the first half, and in retrograde for the second half. Some phrases are perfectly palindromic, and some have slight variations in the second half of the phrases. The following example (Figure 51) shows the first phrase from the third tone set. This phrase has a minor alteration to the retrograde half, in that the notes in the coloured boxes are swapped in the second half. If this was a perfect palindrome, the corresponding coloured notes would be identical.



Figure 51: Palindromic melodic phrase from third tone set. Example from the first draft.

The tone sets that follow the two written-out phrases also contain a slightly different set of notes from the phrases. The intention was to develop the harmonic material within the four tone set sections. Figure 52 shows the slight change to the tone set, with the addition of a Gb (boxed in red) in the improvised tone set, changing from F G C Db F Ab A, to F G C Db F **Gb** Ab A.

The opening tone set of *Mutant Telescope* is similar to a section from the last page of the fourth movement of the work *Négy Sírató* by Sándor Szokolay (1980). This eight note tone set is drawn from the top six sets of strings, as is the opening tone set by Chris, and the resultant effect from a performers perspective is a close arrangement of notes. Chris extrapolated this concept throughout the first movement of the work, by selecting tone sets that were in general proximity on the instrument.

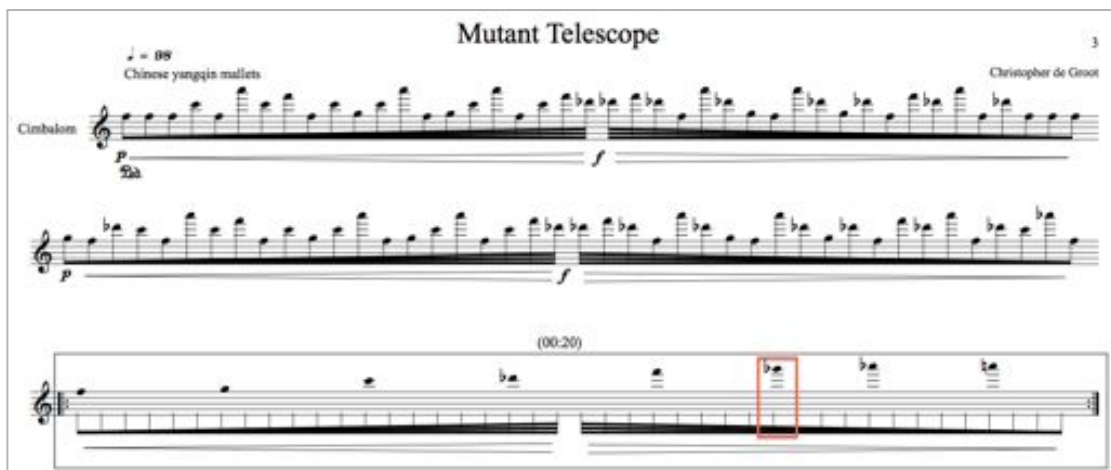


Figure 52: Tone set variation from the written-out phrases. Example from the fourth draft.

Chris' writing style in this section achieves his aim of eliciting sympathetic resonances, and I perceive the resultant effect of the largely palindromic phrases to be more of a musical gesture than melodic statement. In this way, the slight alteration to the tone set in the improvised section is effective in creating a

slightly different harmonic colour. Chris further develops these gestures through the use of different mallets.

The first sketch contained indications for the use of a number of different mallets/playing materials including medium cymbalom mallets, yarn-wrapped marimba mallets, Chinese yangqin mallets, the hands, and a coin. All of these mallet types had come from the manual and as Chris noted, “The orchestration guide was an extremely helpful tool. I referred to it often, especially for note layout and mallet info” (personal communication 22<sup>nd</sup> August 2012). In my work as a percussionist, one of the greatest ways to achieve differences in articulation and timbre is through changing mallets. I had not seen this area explored in great detail on the cymbalom in the extant repertoire, and I was interested in the applications. The selection of the different mallets provided interesting timbral shifts throughout the changing tone sets, and the selections themselves were well suited to the ranges of the cymbalom in which they were used; the lightweight yangqin mallets produced a clear tone in the high register, the hands and marimba mallets produced a reasonably clear tone in the middle register, and the medium cymbalom mallets produced a solid tone in the bass register. The changes helped to maintain interest in the material, as the first movement was based on the one rhythmic gesture.

After the initial meeting, Chris moved interstate, and subsequent work was developed via email. I made an audio/video recording of the first sketch to allow Chris to experience the work in a performative context. He was pleased with the combinations of the tone sets and the mallet choices (personal communication 2<sup>nd</sup> August 2012), and this section remained largely unchanged as a result.

### **Second Sketch**

The second sketch contained the fourth tone set and some additional material that completed the first movement. The score orientation was changed to a landscape format, in the interests of maximising space for the notation of the written-out tone set patterns. The notation for the improvisation on the tone set was now more concisely written, combining the rhythm and pitch indications

into one box, with each improvisation given a time indication (see Figures 53-54).

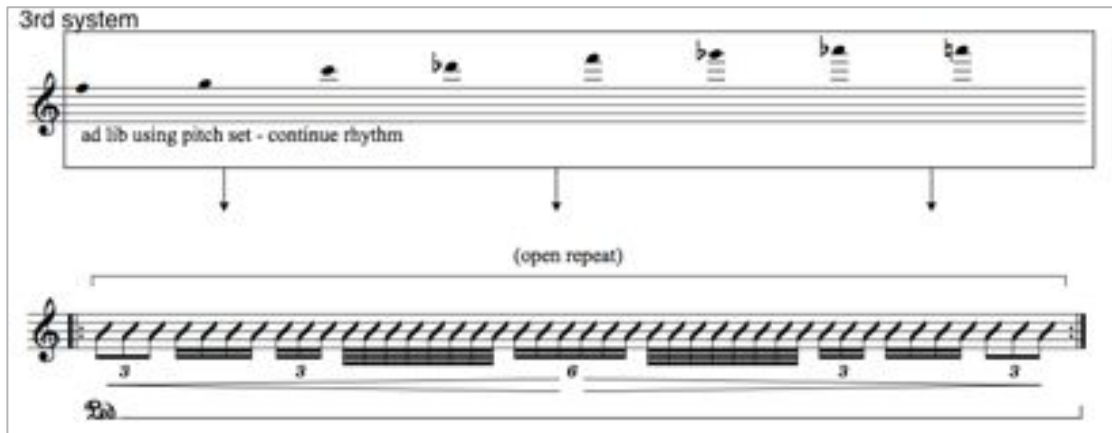


Figure 53: Tone set improvisation from the first sketch.

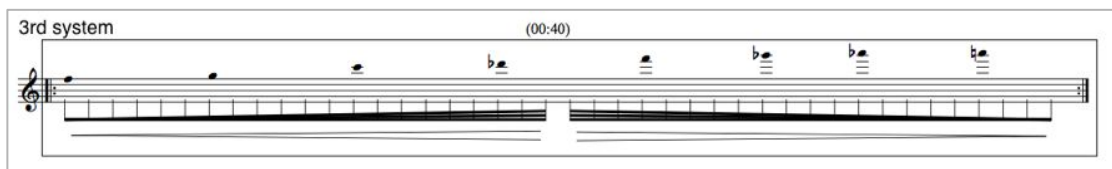


Figure 54: Tone set improvisation from the second sketch. Note the inclusion of a timing indication above the box.

This sketch included a fourth tone set, the lowest of the four, to be played with hard mallets. This fourth tone set was the first deviation from the accelerating/decelerating rhythms used in the first three sections, creating new rhythmic interest. After the fourth tone set, a sixteen-note semiquaver pattern followed, which is pared back until the four-note skeleton remained (Figure 55). I enjoyed the new material, especially the breakdown of the semiquaver pattern, as it was a departure from the wave-like gestures, which had been the main focus of the work up to this point. In Figure 55, the four-beat pattern is presented in the blue bar (dotted bar lines are given), played in retrograde in the green bar, and then accented and pared back through the next five bars until four notes remain in the red bar.



Figure 55: Semiquaver pattern presented and broken down until the four-note skeleton remains. Second sketch. Coloured boxes added for analysis.

My reaction was to lengthen the breakdown of the pattern, as it seemed to happen in a fairly quick manner when contrasted with the slow changes between the previous four tone sets. I felt that increasing the time to breakdown the pattern would both be more consistent with the previous material, as well as utilising what I perceive to be one of the strengths of the cimbalom: playing ghosted notes. A ghosted note is “A weak note, sometimes barely audible, or a note that is implied rather than sounded. Ghost notes may be produced intentionally as a subtle means of articulating a phrase, or they may occur accidentally when a player “ ‘fluffs’ notes” (Kernfeld, 2013). I saw the possibility to create a gradual fading-out of these notes, attempting to create a seamless disappearance by ghosting the notes before removing them entirely. The pedalling indication was, as previously, one held pedal for this section, and this was very beneficial for this technique, as the wash of the sound masked the disappearing notes. The concept of playing ghosted notes on the cimbalom came out of my improvisations, especially in relation to improvisations based upon a transcription I made of the traditional piece *Zöld az Erdő*, as performed by Miklós Lukács (Camon, 2007). I had included the information about ghosted notes in the first draft of the manual (page 40, Appendix #1). I conveyed my idea for this gradual decay to Chris and he notated it as in Figure 56, with the boxed bar replacing the written-out decay as in Figure 55.

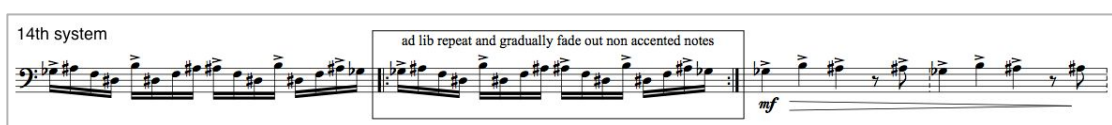


Figure 56: Gradual decay notation from the first draft.

## First Draft to Complete Work

The next version of the score contained the majority of the material for the entire piece. It featured the inclusion of the second movement, which explored extended techniques on the instrument. The second half was largely influenced by the techniques I had included in the manual, and the result was a fascinating exploration into some of the non-traditional playing techniques such as buzz rolling with rubber mallets, striking and swiping the strings with the hands. This movement was markedly different to the first movement, though still gestural in approach.

This draft also featured one extra element to create a timbral shift; the gradual movement from playing near the bridges to the middle of the strings (Figure 57). This is similar to the second page of the work *Hymnus* by György Orbán (1986) in which the performer is instructed to move gradually to and from the bridges.

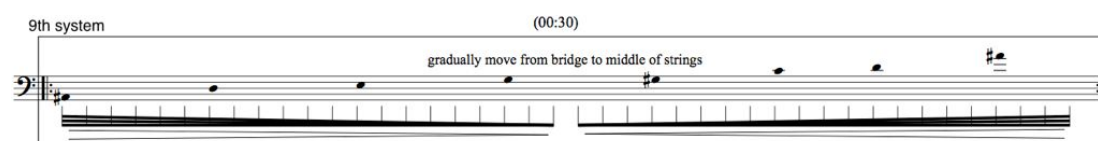


Figure 57: Movement from the bridge to the middle of the strings indication from the first draft.

The second movement began with the soft rubber xylophone/marimba mallets that played the last three bars of the first movement. These produced a solid tone in the low octaves, with a strong fundamental pitch. I had found that it was possible to bounce the head of the mallet on the string similar to the manner of a stick on a snare drum. When I played this continuously with both hands, the effect was that of a rolled note. Unlike the traditional cimbalom roll that is played as alternating single strokes, this technique created a greater density of notes in the roll, and the resultant sound was dense and menacing in the low register. I had not seen this technique used on the cimbalom, and the technique is impossible with the traditional mallets, due to the lack of rebound provided by the head of the mallet. The movement began with two rubber mallet bounces (Figure 58).

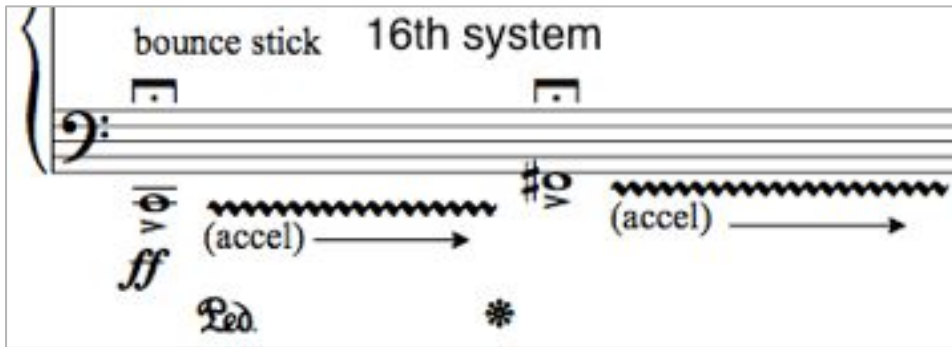


Figure 58: Rubber mallet bounces from the first draft.

When the mallet is allowed to bounce on the string naturally, the duration of the effect is one to two seconds, and I exaggerated the effect by controlling the initial bounces, increasing my hand speed until buzzing the mallet on the string. In a performative sense, this strengthened the effect and created a rhythmic correlation with the opening figure of the first movement. This effect is developed in the next phrase (Figure 59), which uses the buzz roll technique. The tone produced is highly effective and interesting, as the weight of the mallet elicited a loud, menacing sound. I see the development of this buzz roll technique as an influence of my percussion studies on my approach to the cimbalom. This information was included in the first draft of the manual (page 36, Appendix #1).

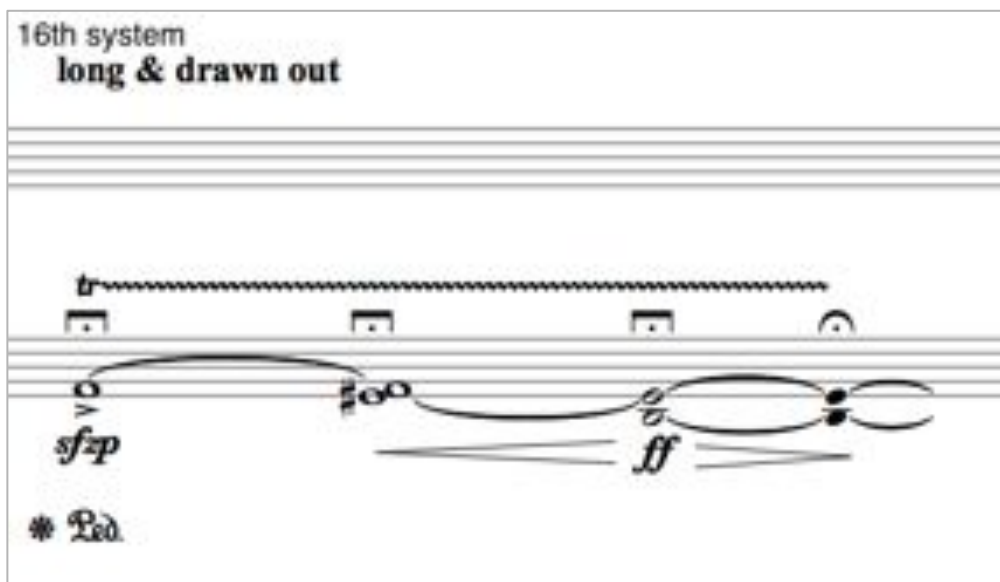


Figure 59: Buzz roll notation from the completed work.

The majority of the material in the second movement was to be played with the hands, with techniques including glissandi, swipes, pizzicato, and strikes. Chris' use of the various hand techniques is similar to the movement, *IX. a bolond dala*, from the work *9 Bagatell Cimbalomra* by Lajos Papp (1971), which features the indication for the performer to pluck notes with the nail, and to play a chord with the fingertips. Chris uses these techniques in *Mutant Telescope* to a greater extent, with entire sections played with the fingertips.

The written glissandi included both the tuned and un-tuned portions of the string, using the nails and the flesh of the fingers. Figure 60 shows the un-tuned glissando, a technique further explored in the next work discussed, *Erre L'Otmito* by Elizabeth Bonny. The indication that Chris uses for the nails in Figure 60 was also included in the manual as a general notation for the use of the nails (page 23, Appendix #1). During the process of compiling the information for the manual, I became aware of the number of possibilities for playing a glissando across the instrument, as taking different paths through the layout sounded different strings. I represented this in the manual through coloured lines moving across the range of the instrument (Figure 61, from page 42, Appendix #1). Chris utilised this information by notating the start and end notes of each glissando (Figures 62). Chris' use of these glissandi with both nail (Figure 63) and the flesh (Figure 64) were effective as both performative and musical gestures, and the loud glissandi at the end of the work using the butts of the mallets (Figure 65) were particularly effective in creating musical and theatrical drama in the work.

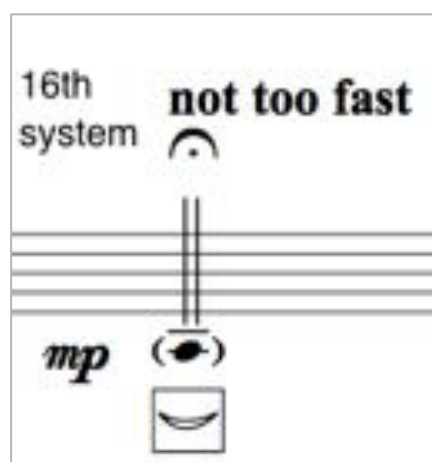
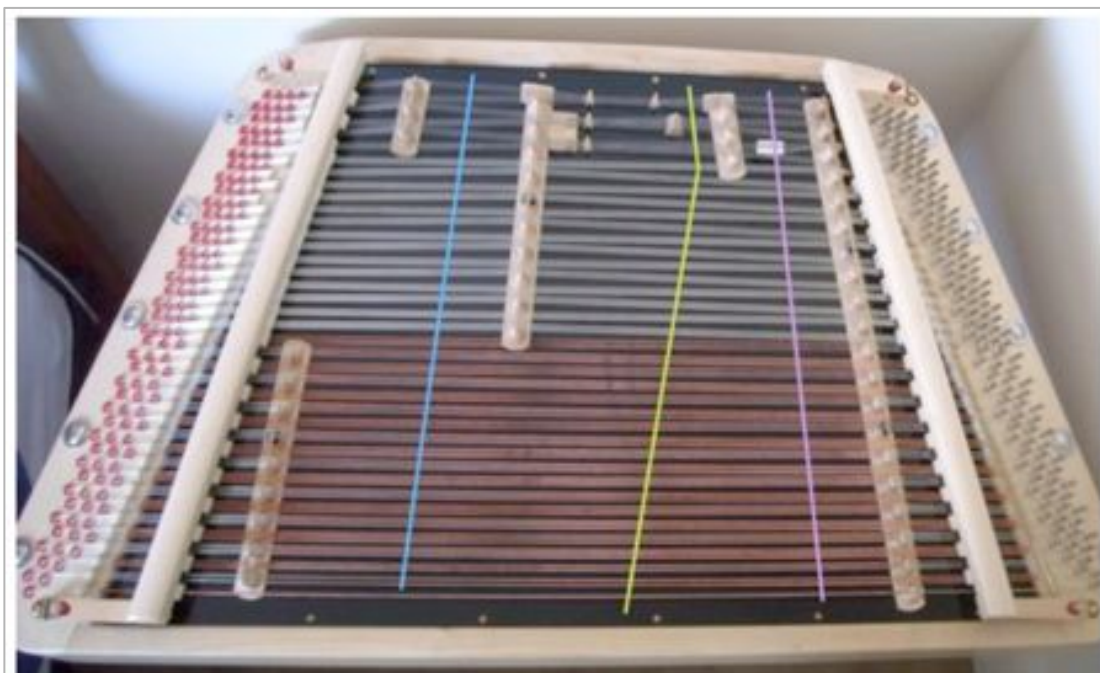


Figure 60: Un-tuned string glissando from the completed work.





The blue glissando sounds most of the left-most strings, the green glissando sounds all of the central strings, most of the right-most steel strings and all of the copper-wound strings, and the purple glissando sounds all the rightmost strings.

Figure 61: Visual representation of some possible glissandi from the manual (page 42, Appendix #1).

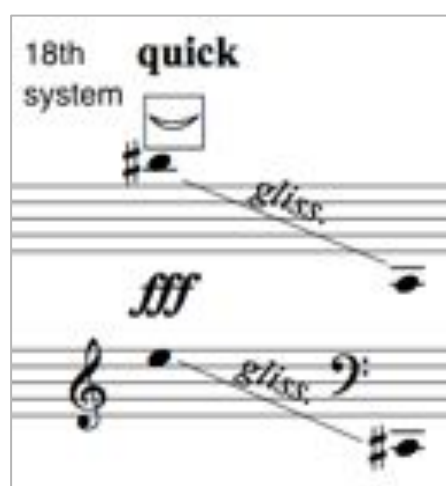


Figure 62: Nail glissandi from the completed work.

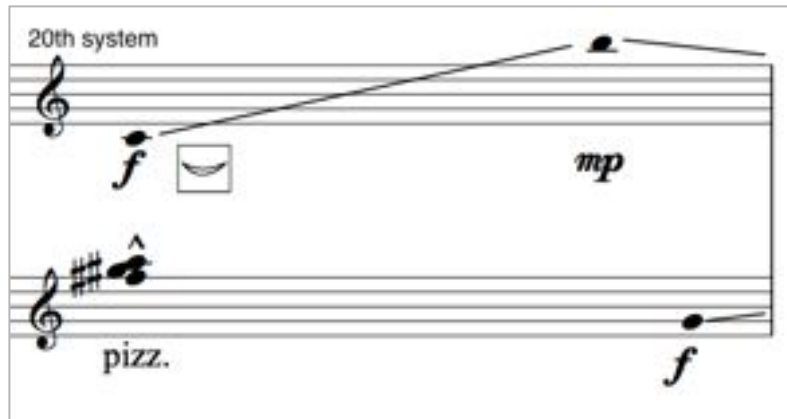


Figure 63: Pizzicato and nail glissando combination from the completed work.

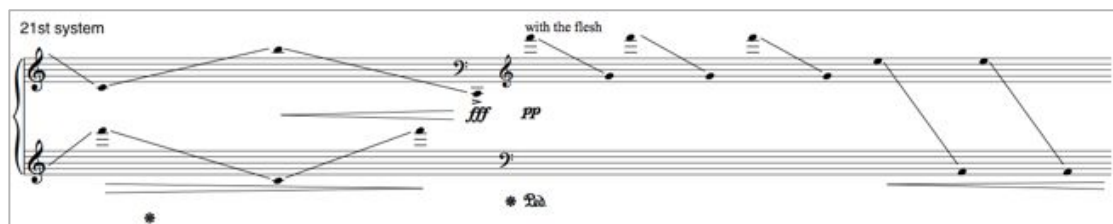


Figure 64: Contrary motion glissandi and flesh glissandi from the completed work.

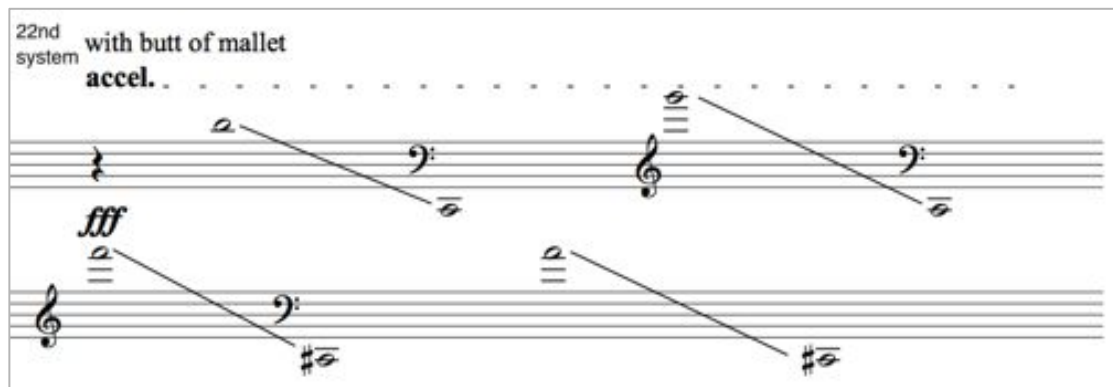


Figure 65: Glissandi with the mallet butt notation from the completed work.

Chris notated all the glissandi as two notes with a line between them, with the exception of the final musical gesture of the piece (Figure 66), an accepted notation practice (Boyden & Stowell, n.d.). This written-out glissando was to be played as alternating double strokes between the hands. This final gesture provided a very turbulent end to the work, and was a powerful gesture that quickly covered the entire range, creating a large loud sound mass before the abrupt release of the pedal to finish.



Figure 66: Written-out double stroke glissando notation from the completed work.

A technique that has influenced my cimbalom playing is the one handed roll. This technique is generally used on the marimba when playing with two mallets in one hand, and produced by rapidly alternating between the two mallets to create the effect of a rolled note(s). This technique is also applicable in hand drumming, played as a fast alternation between the thumb and the middle, ring, and pinkie fingers, with the index finger serving as the axis. I had found that it was possible to roll multiple notes on the cimbalom in this fashion and as such had included it in the first draft of the manual (page 26, Appendix #1). Chris employed this technique in a section where the strings were struck with the hands (Figure 67), which featured struck palm clusters, and one-handed rolls over a cluster of notes. This is a technique that I had not seen applied to the cimbalom previously. The use of the one-handed roll is brief, and this is an area to explore further in future works.

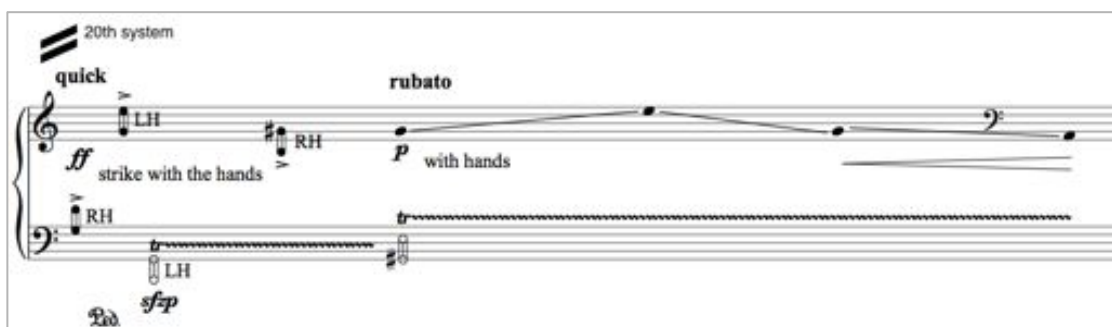


Figure 67: Hand strike and one-handed roll notation from the completed work.

In addition to palm clusters, there were four cluster swipes (Figure 68). This produces an interesting sonic effect as the resultant sound of the swipe can be altered through the speed of execution. If played quickly, the high swishing

dominates the sound, and if played slowly, the pitch of the strings has a higher presence in the sound. Chris allows the performer this freedom through the rubato performance indication.

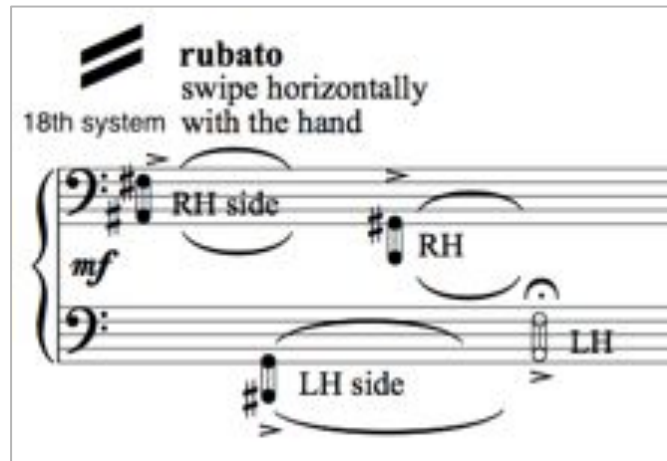


Figure 68: String swipes notation from the completed work.

Chris made use of the traditional pizzicato technique, and notated this very clearly by indicating which hand was to play each pairing (Figure 69). The application of this technique was well written for the cimbalom, as the spacing of the chords was easy to read. I had included a section in the manual pertaining to the possibilities of stretching between two notes, marking the comfortable and uncomfortable intervals and this was reflected in the playability of Chris' material.

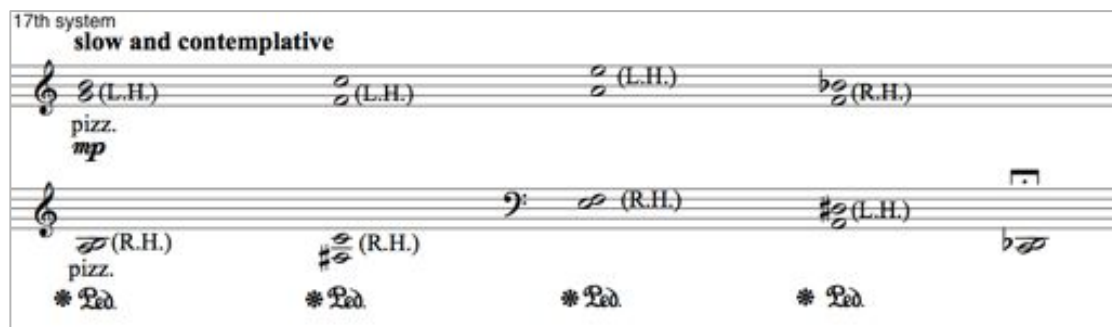


Figure 69: Four note pizzicato notation from the completed work.

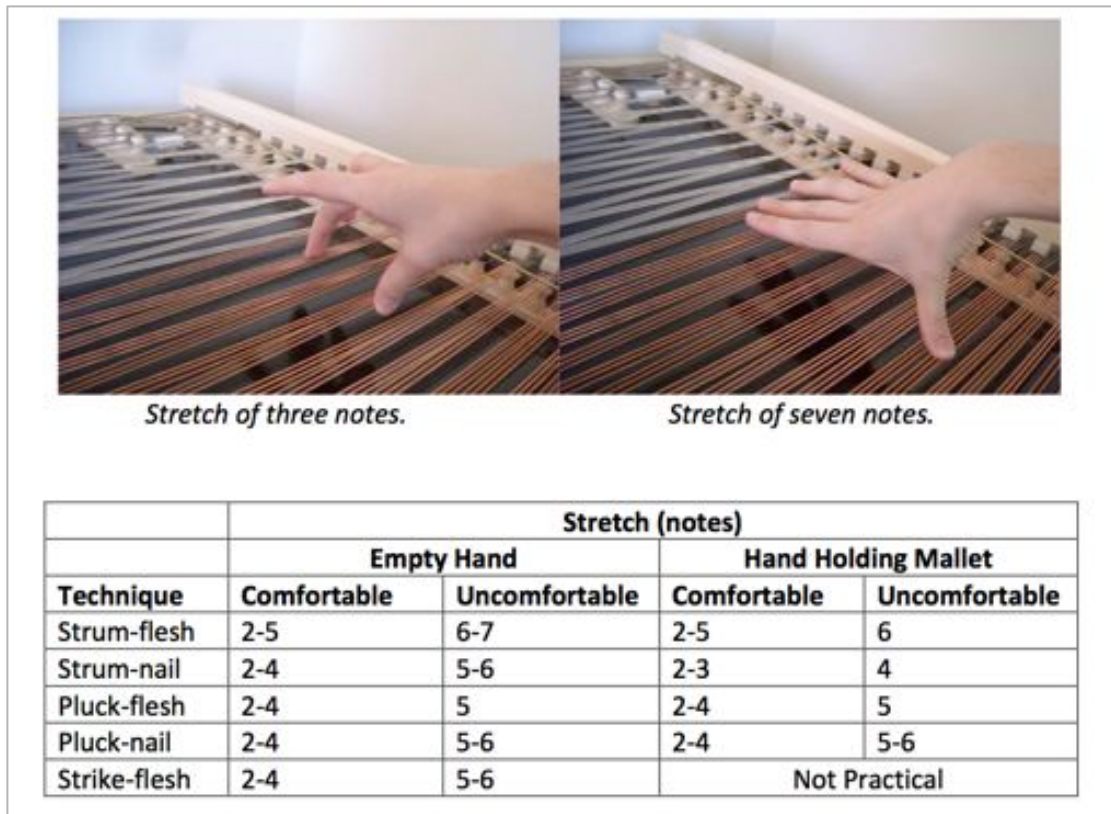


Figure 70: Table and images relating to the possibilities of stretching between two notes played with the fingers from the manual (page 27, Appendix #1).

The final extended technique to discuss in this work is the employment of coins on the strings. This is a technique I had not seen in any previous works, and the resultant sound is one of the most interesting, complex effects I have explored on the cimbalom. Chris asks the performer to scrape up and down the string with a coin, giving motion indications (Figure 71). This effect was extremely effective when played very slowly, as it produced clear overtones. As the coin moved closer to the chessman bridge, the pitch of the harmonic rose and the effect was reminiscent of a siren. The pitch of the note that the coin is scraped across is not largely present in the resultant sound, and it is more of a sound effect than a melodic or harmonic device. My one concern with performing this technique on the cimbalom was the potential for damaging the strings and this is not a technique I feel comfortable using constantly or with great force. The notated contours for the movement across the string (Figure 71), involved both hands starting at opposite sides of the instrument and crossing over until reaching the other sides. This was very difficult to coordinate and execute reliably and effectively, so I moved the hands in the same direction, rather than in contrary

motion. This was easier and more reliable, and the score was changed to reflect this. I suggested that the hands be offset to retain the starting position at the point closest to the fine-tuning bridge (Figure 72). As my preference for playing this technique was at a slow speed, I asked Chris to reduce the number of oscillations on each note. When workshopping the piece with Tim White, he suggested I start the coin section slowly, speeding up, and slowing down to finish. This contour was reminiscent of the opening rhythmic waves and it was a very effective performance suggestion to create interest and unity in the work. I included this coin technique in the manual in the section regarding harmonics, and following a discussion of sliding harmonics (page 44, Appendix #1).

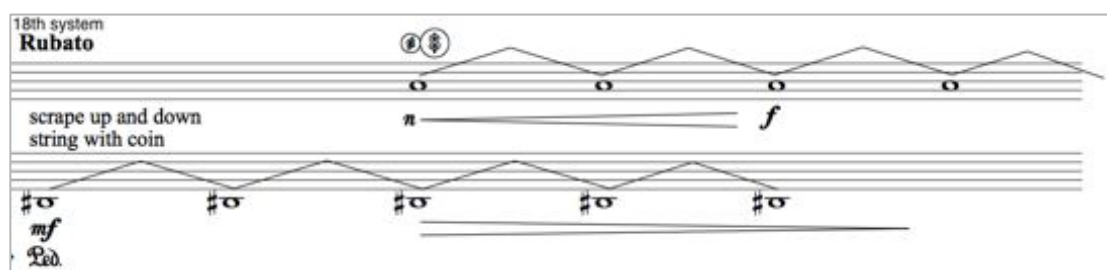


Figure 71: Coin scrape notation from the first draft.

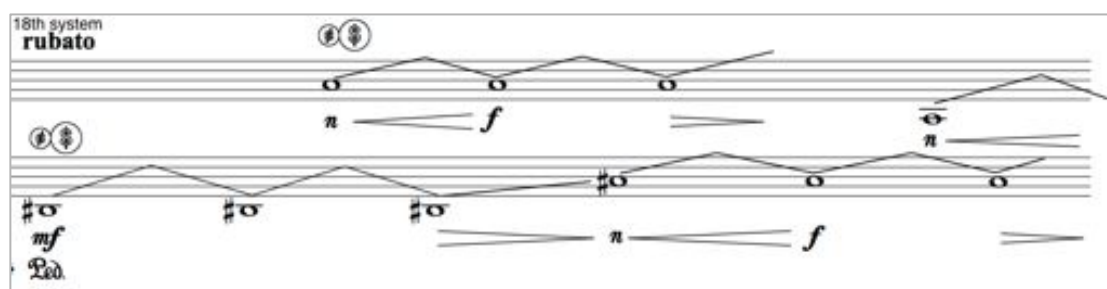


Figure 72: Coin scrape notation from the completed work.

The use of a coin on the string is similar to the use of a steel mallet in the work *Soliloquium* by István Láng (1986), however the exact technique that Chris uses to produce the harmonics on the string is most closely related to the work *Maelström* by Portuguese composer João Pedro Oliveira (b. 1959) (2006) in which the performer is directed to rub the strings very fast with a metal stick, and to glissando on one string only (almost scratching the strings). Chris combines these two approaches by rubbing a metal coin across the strings to produce the harmonics.

## **Reflection and Conclusion**

*Mutant Telescope* is a significant addition to the cimbalom repertoire, as it uses the unique characteristics of the cimbalom to create musical gestures and soundscapes. The cimbalom has the potential to create a wide variety of sounds, and Chris' use of extended techniques was a fascinating exploration. Featuring subtle harmonics elicited by a sliding coin, the vastly different timbres created by changing mallets, and the menacing tone of a buzz roll with rubber mallets, Chris created a highly interesting solo work.

I performed the work as part of the Sound Spectrum Festival at the WA Academy of Performing Arts, and the feedback I received was positive, with a great deal of interest shown to the second half of the piece, especially the sound of the coin on the strings (personal communication 15<sup>th</sup> October 2012). Working on the second movement was highly beneficial in developing my understanding of the cimbalom to produce soundscapes.

Chris' approach to composing for the instrument was very physical, and it is obvious that the pitch layout had a large impact on the material. The four tone-sets in the first movement work well from a player's perspective, as they each focus upon a smaller area of the instrument, lessening the amount of large physical movements. The work was by no means easy to play, and the written-out tone set patterns required a great deal of practice to execute at speed. Yet musically, it was one of the most rewarding, as the potential for vastly different readings of the second movement in particular allowed for a great array of personal expression.

I felt it was appropriate to emphasise the gestural nature of the work in performance, and this was highlighted to me by Tim White, who particularly encouraged me to perform the opening telescoping rhythmic patterns as waves that ebbed and flowed, as this was the basis for the majority of the first movement. Chris' notation is clear, but the nature of the material allows for interpretation by a performer, and this allows the possibility of varied renditions of the work. The piece moves between beautiful and violent gestures, from the

very soft sounds of playing with the fingers to the very powerful sound of a full instrument glissando. This work explores the boundaries of the cimbalom.

This work collaboration was influenced by, and contributed the most to the manual, both through the addition of techniques, such as the coin on the strings, and through the testing of the techniques I had explored in my private practice: the use of non-traditional cimbalom mallets, ghosted notes, buzz rolls, and one handed rolls. The ability to workshop these in the context of the work allowed me to develop my technical and musical understanding of these applications, and confirmed the techniques in the manual.



#### 4. *Erre L'Otmito* by Elizabeth Bonny

Studio Recorded Performance (Appendix #8, Chapter 5)

Score (Appendix #5)

Completed October 2012. Premiere performance March 5<sup>th</sup> 2013 at the Western Australian Academy of Performing Arts.

##### **Elizabeth's Background**

Elizabeth Bonny graduated from the Western Australian Academy of Performing Arts in 2011 with a Bachelor of Music degree in Composition. She was nominated for Best Composer at the Western Australian Screen Awards 2010, and awarded the Mary Thomson Scholarship toward her undergraduate music studies. She is an emerging professional composer.

Beginning with solo piano works, Elizabeth began collaborating with her sister at an early age in the composition of songs. Her compositional output includes works for solo instruments, electronic music, sound installations, film scores, dance and theatre works, and chamber works. She is now based in Italy, and works on various commissions and projects, both individually and in collaboration with other artists. She is active in a number of musical genres, including film, theatre, electronic, classical, and contemporary music.

Elizabeth writes of her style (n.d.), that her “aesthetic philosophy guides her unique style as opposed to any particular artistic movement or genre. With the enigma of a Venetian courtyard, her music is animated by bubbling eccentricity and undercurrents of deeper spiritual enlightenment”.

##### **Development**

*Erre L'Otmito* is the result of a nine-month collaboration with Elizabeth Bonny. We had worked together previously in the preparation and presentation of Elizabeth's 2011 composition graduation recital performance. She had written two works for a chamber ensemble consisting of yangqin (Chinese dulcimer), string trio, electric keyboard, and electronics. I played the cimbalom with yangqin mallets and the resultant effect was a close approximation of the

yangqin sound. The parts were informed by conversations Elizabeth had with a yangqin player and they translated well to the cimbalom. During the process of preparing the recital I was able to show Elizabeth some of the extra options available with the cimbalom, including the increased range and the pedalling possibilities and this was the beginning of a conversation about working together to create a solo work for cimbalom.

*Erre L'Otmito* was primarily a long-distance collaboration, as Elizabeth moved to Italy the day after our initial meeting. The piece was greatly influenced by Elizabeth's experiences of racism towards some non-Italian members of the city in Italy in which she was living. The clash of cultures and the resultant tension became the main focus for the work. The work is in two movements: a slow movement utilising ostinato figures with accompanying and interjecting musical figures; and a fast, rhythmic movement, full of clashing semitones and ostinati.

### **Initial Meeting**


Elizabeth was particularly interested in the possibilities for preparing the cimbalom similar to the manner of preparing a piano. We explored different ready-to-hand materials such as paper, cardboard, rubber, and metal. In addition to the non-traditional mallets I was familiar with, we experimented with playing the strings with a cardboard poster tube (my mallet holder), which produced a surprisingly full tone, especially in the bass strings. We tried the plastic discs that seal the tube, both as a striking tool and to create a buzz when left on the string as well as different effects such as bowing the strings with strips of paper. We played with rubber mallets over the entire body of the cimbalom, seeking different percussive effects. The potential for any object to be a mallet was obvious, and from this, I limited the explanation of the potential mallets in the manual to the standard cimbalom mallets, and readily available percussion mallets, whilst explaining that virtually anything could be used.

In preparing the cimbalom, we found that paper strips woven through the individual strings produced a muted sound, which could be made to buzz if woven loosely. The preparation that I found most interesting was the placement

of paper between the dampers and the strings in the copper-wound bass register. This placement meant that when the dampers were left on the string, the note sounded in the normal manner, as the paper on the strings did not affect the sound. When the dampers were raised fully, the effect was similar to a standard un-dampened note, and when the dampers were only raised slightly, the paper buzzed between the string and the damper when the string was struck. This preparation was interesting because it was possible to create the effect of a prepared and non-prepared note, all through the use of the pressure of the dampers. By slowly decreasing the dampers' contact with the string, the buzz effect was amplified until finally it mostly disappeared when the damper was raised high above the strings. This preparation could be made quickly from the performer's playing position and therefore was both possible and practical for a performance situation.

We tried other impromptu preparations, such as placing a timbale stick on the strings, which created a longer buzzing sound when the string was struck, and using coins to slide across and strum the strings. As with mallet choices, the potential for preparations seemed virtually limitless, though the resultant effects divided into the following categories: buzzing, muting, altered pitches, and percussive effects. As a result of this investigation, and a similar investigation with composer David Pye, this information was included in the manual (pages 48-9, Appendix #1).

The resultant work only made use of paper strips woven through the strings to produce a buzzing sound. The following example shows the paper strips and the preparation instruction from the final work.



Six notes (F#5 G5 Bb5 B5 C#6 D6) are to be prepared with paper so as to create a buzzing sound. This is achieved by weaving strips of paper between the strings.

The second movement should follow on directly after the first, as such the paper preparations will need to be made before beginning the piece.


Figure 73: Preparation instruction from the performance notes showing the paper strips on the left and the directions for preparation on the right (Appendix #5).



Figure 74: Buzzing instruction for the prepared strings.

Elizabeth's first contribution to the manual was the inclusion of the non-dampened notes on my cimbalom, the notes that due to the physical layout do not contact the damper arms on either side of the instrument. I was aware that there were non-dampened notes but had not considered them as a potential compositional tool. They allowed for both dampened and non-dampened notes to be played simultaneously.

The concert cimbaloms made by Pavel Vsiansky have fourteen strings without dampers.



*The fourteen non-dampened notes on a Vsiansky light cimbalom.*

Figure 75: Notation of the non-dampened notes from the manual (page 32, Appendix #1).

Elizabeth's move to Italy for the duration of the collaboration changed the way in which we worked together, and slowed the process of development, similar to the implications of working via email with Chris. Elizabeth and I used Skype, the real-time audio/video connection software, with supplementary emails as required. Skype allowed for an immediacy of contact that was as close to meeting in person as possible, given the large distance between us. Our meetings were similar to a face-to-face meeting in that I would have my computer set up at my cimbalom so as to play for Elizabeth.

### **First Sketch**

The first sketch was a conceptual drawing showing both the initial thinking behind the whole piece and an attempt at the basic structure of the work (Figures 76-77).

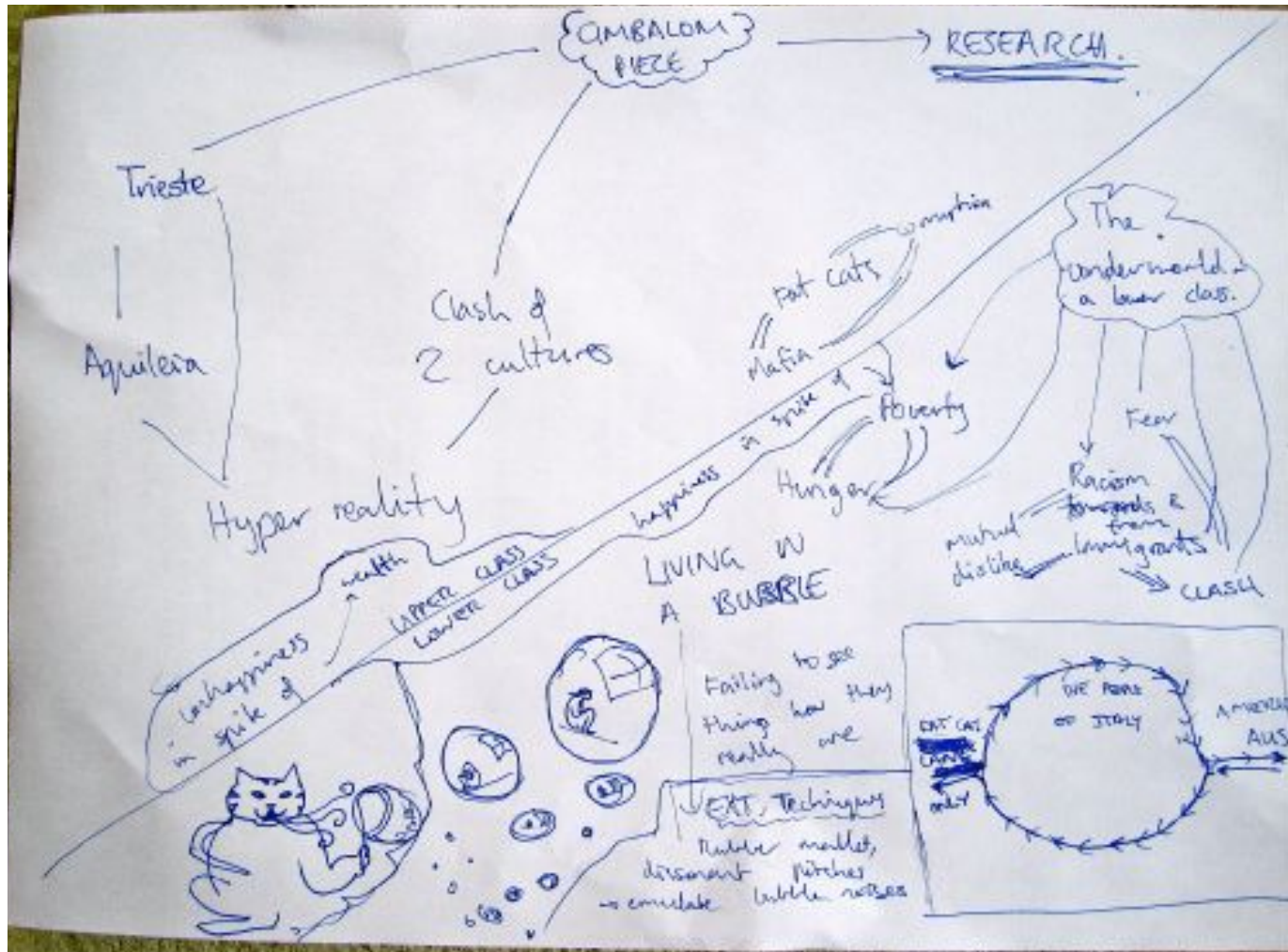


Figure 76: The first conceptual sketch for *Erre L'Otmito*, page 1.

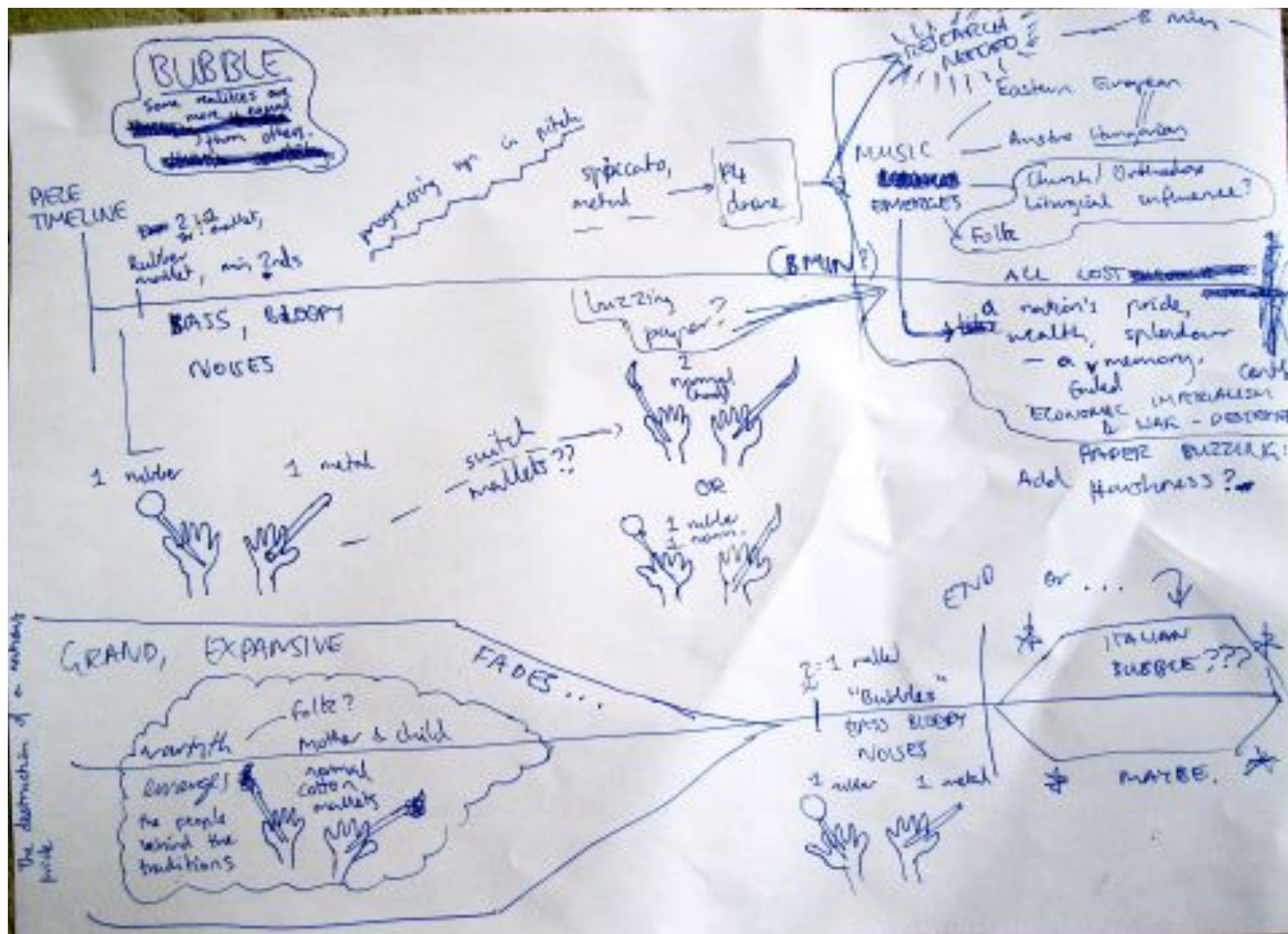


Figure 77: The first conceptual sketch for *Erre L'Otmito*, page 2.

In our first Skype meeting we discussed the notation of the relative pitches of the un-tuned portion of the strings. Each string has a standard playing section that is tuned to a specific pitch, and there are also at least two, and often three sections that are un-tuned, as they are the sections between the pins and the fine-tuning bridges, and for some strings the fine-tuning bridge to the chessman bridge (for a reminder of the portions of the strings see Figure 41).

I found that the section between the fine-tuning bridge and the chessman bridge produced a similar pitch for all the strings tuned to that note. I refer to them as the un-tuned sections due to the fact that the pitch of these sections are not intentionally tuned, despite the fact that they produce an identifiable pitch. The majority of these pitches can be found elsewhere on the instrument as tuned notes. As the pitch of these sections is not intentionally tuned, the resultant pitch does not exactly align to an A=440 standard, and the un-tuned notes can be up to a quartertone away from their tuned equivalent.

I had previously experimented with the musical applications of the un-tuned string portions, by playing a note followed by the un-tuned equivalent. The slight pitch variation in the latter produced an interesting microtonal effect, which could be made to sound like a warped echo. It was only when Elizabeth had asked about the specific pitches of these un-tuned sections that I had thought to include the notation in the manual. The specific un-tuned notes would differ between instruments and this is mentioned in the manual.

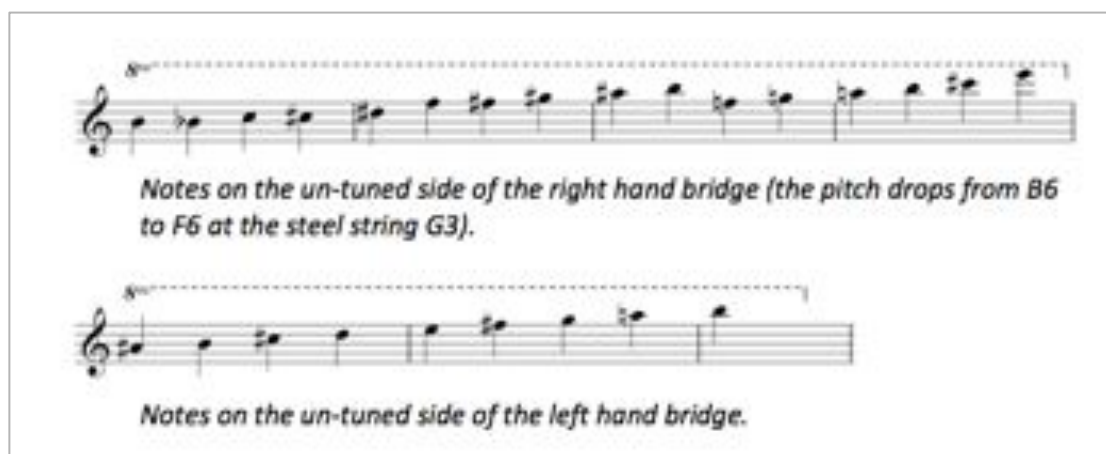


Figure 78: Un-tuned notes notation from the manual (page 42, Appendix #1).





Figure 79: Un-tuned string sections shown in the yellow boxes. Picture from the manual (page 41, Appendix #1).

Following this first sketch was a request to audio/video record examples of the extended techniques we had discussed in the initial meeting, as Elizabeth wanted to both see the physicality of the technique as well as hearing the result. I filmed and edited an eight-minute video of these techniques, which became an appendix to the manual (Appendix #8, Chapter 1). The creation of this video was facilitated through the demands of the collaboration and highlights the impact of the process of working with the composers on the manual.

The eight minute video contained the following examples: muted notes, harmonics, sul ponticello, pedalling variants, mallet dampening, dead strokes, variants in playing position, cimshot, un-tuned portions of the strings, glissandi, hand techniques (swipe, strike, strum, rolls), rubber mallet techniques, metal mallet techniques, yangqin mallet techniques, playing the body of the cimbalom, playing two notes with one mallet, and a one handed roll technique. Of these extended techniques, the ones used in the work were: glissandi on the un-tuned

portion of the strings, rubber mallets on the body of the cimbalom, and playing two notes with one mallet.

## Second Sketch

The second sketch was a musical sketch for three movements, titled *Baco da Seta* (silkworm), *Cacchio!* (darn!), and *Santa*. Each providing interesting ideas as follows.

*Baco da Seta* was based upon the rhythm of the sleeping breath, reflected through a fluidity of tempo. The writing for the cimbalom primarily featured two lines that dovetailed one another, a similar approach as taken by Johannes in *things are not always as they seem* (see Figure 80). This technique created the effect of two voices that overlap one another, and was effective from the perspective of playability, as the interlacing lines allowed the performer to use both mallets to play both lines. The material was atonal, with no easily identifiable melodic ideas. The rhythms were based on a quaver subdivision, with repeated rhythmic motifs.

The image shows a musical score for the piece "Baco da Seta" by Elizabeth Bonny. The score is written for four staves, with the first two staves in the upper system and the last two in the lower system. The tempo is marked as ♩ = 55 and the instruction "to the rhythm of your sleeping breath" is written above the first staff. The title "Baco da Seta" and the composer's name "Elizabeth Bonny" are centered at the top. The score features complex rhythmic patterns with frequent changes in time signature, including 4/4, 3/4, 2/4, and 5/4. The music is characterized by overlapping, dovetailing phrases between the staves, creating a sense of continuous, interlocking movement. The notation includes various note values, rests, and dynamic markings.

Figure 80: Dovetailing phrases from the second sketch. Highlighting is the composer's indication and not relevant here.

## First Draft

Elizabeth revised the material with the major change from the second sketch being a complete rewrite of the material from the first movement. The one idea that remained was the chromatic runs as shown in Figures 81-82.



Figure 81: Red boxes show the chromatic runs from the second sketch. As before, the highlighting is not relevant here.



Figure 82: Red boxes show the chromatic runs from the first draft.

The first movement, now simply titled 1, retained the concept of the fluidity of tempo to reflect the sleeping breath, but now had two ostinato figures as a basis (see Figures 83-84). Both ostinatos were six crotchets long, which divided into three pairs of notes a semitone apart. Elizabeth's intention was for these to be played in a way that retained the feeling of the six-note phrase but with an underlying pulsing of the pairs. The semitonal relationship within each pair created a phrase that oscillated up and down, further relating to the rise and fall of the sleeping breath. Though the new material was not based on functional harmony, the use of ostinato figures created the feeling of a general tonal centre.



Figure 83: First ostinato from the first draft.



Figure 84: Second ostinato from the first draft.

Elizabeth wrote a section where the two ostinato phrases began a quaver out and slowly phased together (Figure 85). Elizabeth decided not to develop it

further and it was removed from the second draft, yet this is an area that could be explored in future works.

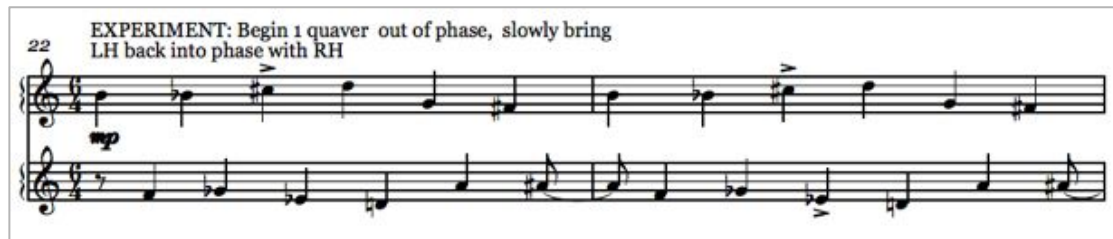


Figure 85: Phasing notation from the first draft.

The second movement changed little from the second sketch to the completed work. Originally titled *Cacchio!*, this was changed to the number 2 in the first draft. This movement was based upon a 7/8 ostinato rhythm (Figure 86), and the entire movement was to be played with soft rubber mallets. The material in this movement explored the use of what I term double notes, the technique for playing two notes simultaneously with one mallet. This is the same technique used by Johannes in *things are not always as they seem* and is achieved by striking the strings at the point where they intersect. I found this was best achieved with traditional cimbalom mallets, as the long flat shape of the mallet head was well suited to striking two strings simultaneously. It is still possible to achieve this effect with a round-headed percussion mallet, but it is hard to produce the effect. I explained this challenge to Elizabeth in our Skype meeting, but she was not concerned that the notes may not always speak together.

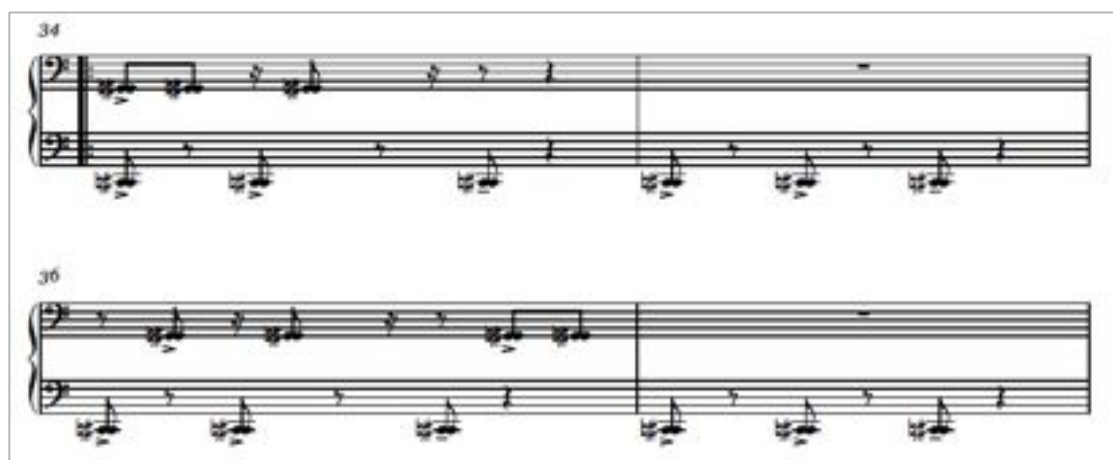


Figure 86: 7/8 ostinato from the completed work.

The use of double notes was extensive in the second movement of *Erre L'Otmito* and this is similar to that of Igor Iachimciuc in the *Toccantina* movement of the work *Suită Concertantă* (2004). Elizabeth used these double notes not to complete a chord, but to create tension through playing adjacent semitones, and this was effective in creating the atmosphere of the second movement.

The musical material was heavily dissonant, as the majority of the writing was for adjacent semitones in both hands, a continuation of the rising and falling semitone ideas in the first movement. The two ostinati from the first movement returned, in an altered rhythm, and with one note respelled (A# to Bb). The 7/8 ostinato returned and then began to disintegrate until only one note remained. This was similar to the end of the first movement of *Mutant Telescope* where the ostinato was pared back until the skeleton remained.

This movement also called for the body of the cimbalom to be played. The notation in the score did not specify the exact location to play, allowing the performer the flexibility to select sounds based upon the specifics of their instrument. This was particularly useful as playing on the instrument, or rapping on the instrument as the piece described it, was used both as a rhythmic feature (Figure 87) and as an accompanying figure (Figure 74). This information was included in the manual (page 47, Appendix #1).

Elizabeth's use of the mallets on the body of the cimbalom as a percussive technique is similar to the use by Boris Dubosarski in the *Allegro guisto* section of the work *Reflectare* (2004). Dubosarski uses this both as an accompaniment feature and an interlocking rhythmic pattern.



Figure 87: Playing the cimbalom body as a rhythmic feature. From the completed work.

The use of the cimbalom as a percussive sound source is incredibly interesting to me as there is a multitude of possible sounds. This is amplified when different mallets or the hands are used to elicit different percussive effects. I have explored a number of percussive sounds, in an attempt to be able to create rhythmic accompaniment to melodic material, and this is an area that could be further explored beyond this project. Elizabeth's use of the cimbalom as a percussive sound source is brief but effective, eliciting a vastly different sound to the traditional playing techniques.

The third movement, *Santa*, featured the use of two mallets in each hand so as to allow for one-handed rolls, as played on the marimba. I had not seen this technique in the extant cimbalom repertoire, but was familiar with it from the marimba repertoire in works such as *Ultimatum I* (1994/5) and *Ultimatum II* (1994) by Nebojša Jovan Živković (b. 1962). The use of two mallets in one hand is considered standard practice in keyboard percussion, though I have seen it used little on the cimbalom. One of the major difficulties with applying this concept to the cimbalom is the nature of the mallets and the layout of the notes. The circular head of a marimba mallet allows the mallet to be rotated in the hand, and this is essential in changing intervals. The shape of head of the cimbalom mallet does not allow for rotation, but the action can be modified to overcome this. The greatest challenge however, is the note layout, as keyboard percussion is arranged in a lateral manner, whereas the cimbalom layout is largely longitudinal. The implication is that the lateral interval changing motion

from the standard multiple mallet grips is significantly less effective on the longitudinal cimbalom layout. It is possible to compensate for this through the use of extra arm and wrist motions, though this is cumbersome and often more trouble than the resultant effect is worth.

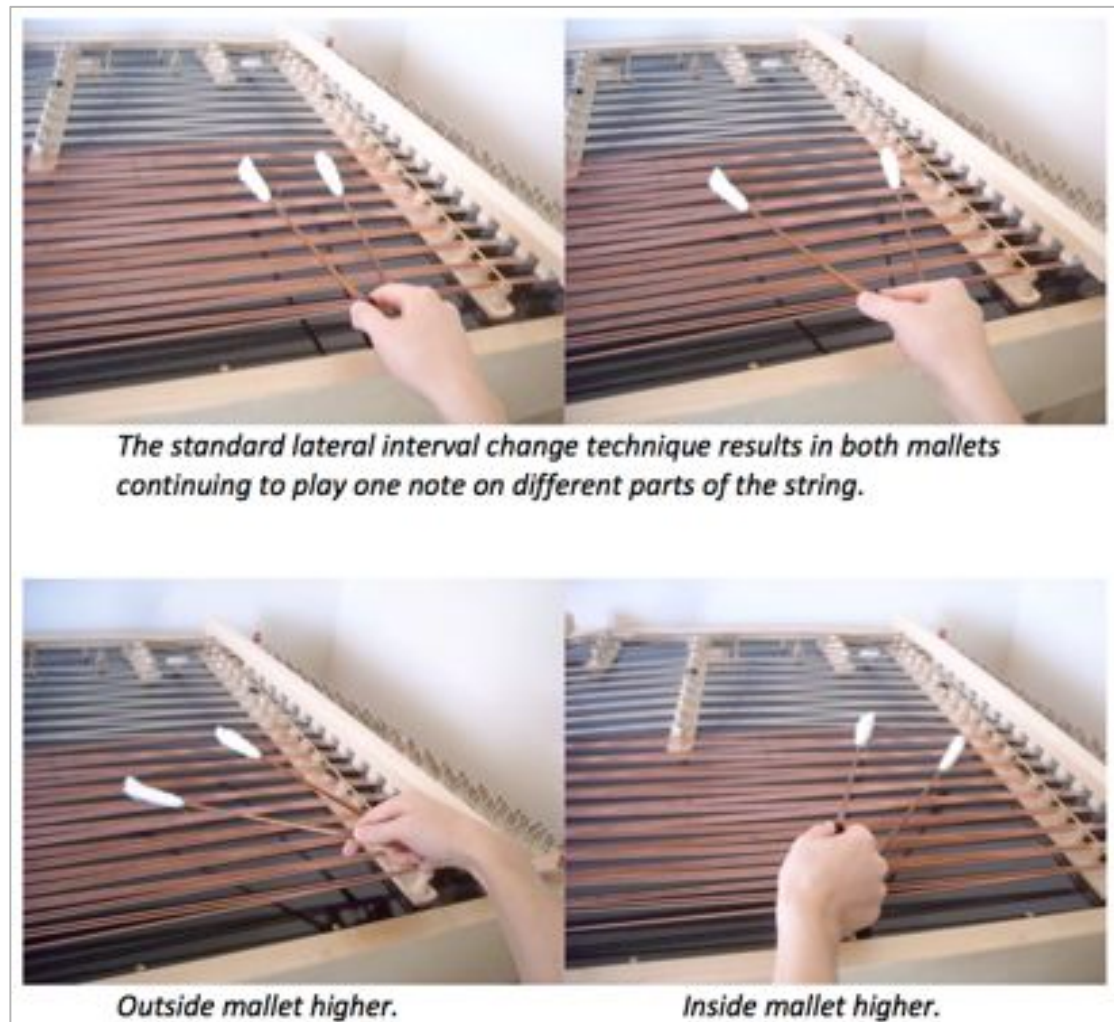


Figure 88: Interval changing possibilities for two mallets in one hand from the manual (page 28, Appendix #1).

The writing for the one handed roll in *Santa* was quite awkward due to the size of the intervals. In the following example (see Figure 89), the roll in the first two bars worked well on the cimbalom as the note B2 has a large striking area and this helped facilitate the roll technique. The following two bars with octaves (B2 and B3) were difficult to play, and move to efficiently, due to the spacing of the notes. Though the one handed roll provided an interesting challenge for my

technique, the third movement was removed from the second draft onwards at Elizabeth's discretion.

The image shows a musical score for the character Santa, measures 101 through 105. The lyrics are "She stands next to an ocean / As lonely and unforgiving as her fate". The tempo is marked as ♩ = 60. The score is written for two staves, with the upper staff using a bass clef and the lower staff using a tenor clef. The upper staff is marked "yang qin mallets" and the lower staff is marked "with one hand". The score includes various musical notations such as rests, notes, and slurs, illustrating one-handed roll techniques.

Figure 89: One-handed roll techniques from the first draft.

Performers such as American Michael Masley have already explored the use of more than two mallets on the cimbalom. Masley invented what he terms bowhammers, small mallets that attach to each finger so the performer effectively has ten mallets, changing the way the instrument is played (Michael Masley, n.d.). My personal interest is playing with four mallets held using the established keyboard percussion grips, maintaining the potential to play the instrument in a manner that resembles the traditional two-mallet method, with the added possibilities of one-handed rolls and the playing of more than two notes at a time.

### Second Draft

The second draft of the work contained two additional techniques. The first was a strumming of the un-tuned strings, as notated by the 'x' note heads in Figure 90. Elizabeth's intention was to play these notes by strumming the un-tuned side of the strings with the flesh of the fingers. I rehearsed the technique and



preferred the effect of strumming the string at the point between the fine-tuning bridge and the hitch pin, as opposed to the section I had labelled as the un-tuned section in the manual (page 42, Appendix #1); i.e. the section between the chessman bridge and the fine-tuning bridge. The string length between the fine-tuning bridge and the hitch pins is varied, and this created a wider spectrum of pitches and a more ethereal sound to complement the mood of the material. The general length of these string sections is smaller than that between the chessman bridge and the fine-tuning bridge and as a result, the pitch is higher and has a shorter duration. This section of the string is similar to the portion of a guitar string beyond the neck.

I experienced the sound as gentle and delicate, with a slightly eerie quality, and thus suited to the troubled dreamlike atmosphere being evoked in the first movement. Elizabeth notated the effect as four note chords with an arpeggio arrow, with the range of the notation indicating a relative range, not specific pitches. I suggested a note in the preface to the score to further explain the particulars of this technique (see Figure 91). This technique is very effective.



Figure 90: Strumming notation from the second draft.

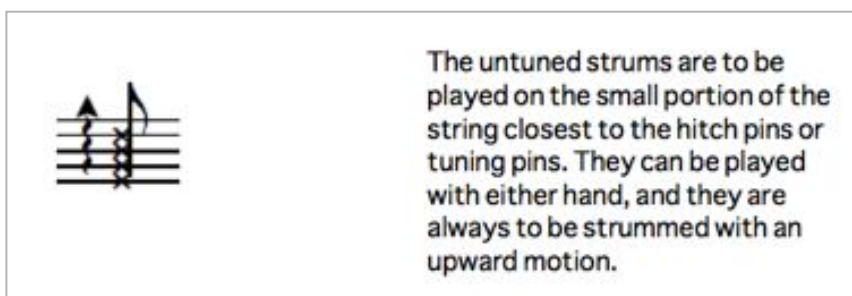


Figure 91: Strumming explanation from the preface to the completed work (Appendix #5).

The second additional technique used in the second draft was a rolled version of the combined ostinati (Figure 92). I played this revised idea for Elizabeth in our next Skype meeting and she decided it was not right for this movement and it was abandoned in the complete work.

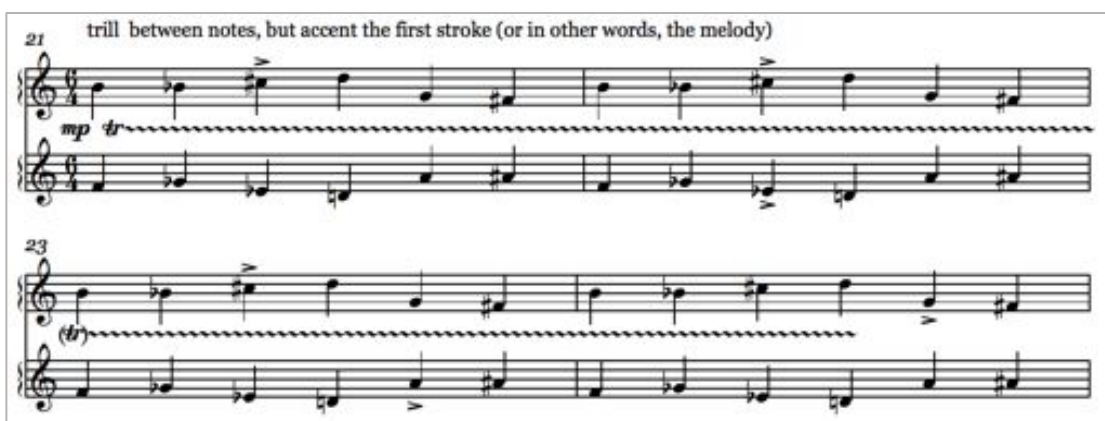


Figure 92: Rolled melody notes from the second draft.

### Complete Work

Elizabeth made minor changes to the work based upon my feedback and her impressions from our meetings, and we then began the process of cleaning up the score, and created a page explaining the specific techniques and the notation. The process of finishing the work took place over numerous emails.

### Reflection and Conclusion

*Erre L'Otmito* was an interesting addition to the cimbalom repertoire as it explored two main compositional approaches; atmospheric and rhythmic. The greatest impact this piece had on my cimbalom practice was an enhanced

awareness and appreciation of the un-tuned sections of the string, and the relation between a pitched un-tuned section and the tuned equivalent. The piece suggested a notation for the strumming of the un-tuned notes and I found the use of a relative height to be an effective method.

The second movement was effective in developing my technique of playing two notes with one mallet. Playing on the instrument body was explored in a small amount of detail and this was an interesting experience for me to search the cimbalom for specific sounds that would both sound appropriate and be possible to execute within the surrounding notes. I can see the possibilities of the percussive effects in a variety of styles of cimbalom performance, as it can be both a soundscape and rhythmic device. The use of rubber mallets was particularly effective in creating a harsh, overtly aggressive sound, and this was the first time I had used harder rubber mallets on the instrument.

The piece was fairly simple in construction, though the difficulty lay primarily in the consistent execution of the extended techniques of strumming the un-tuned strings and playing two notes with one mallet. In addition, the contributions of the preparation techniques, the awareness of the pitches of the un-tuned portions of the strings and the un-dampened pitches was very valuable to the manual and to my own cimbalom practice.

## ***5. The Isolation of Zoltán Szőlősi by David Pye***

Studio Recorded Performance (Appendix #8, Chapter 6)

Digital Backing Track (Appendix #8, Chapter 7)

Score (Appendix #6)

Completed December 2012. Premiere performance March 5<sup>th</sup> 2013 at the Western Australian Academy of Performing Arts.

### **David's Background**

David Pye (b. 1958) is a composer, percussionist and conductor working principally in dance, theatre, and music for youth and amateurs. He graduated with distinction from the Victorian College of the Arts in 1980 with a BA (Music). A resident in Western Australia since being appointed as Principal Timpanist with the West Australian Symphony Orchestra in 1981, David has been involved in all aspects of classical and contemporary music making in Perth for many years.

In 1983 he founded the Nova Ensemble to perform music of the twentieth century. In 1989 David turned to composition with works being commissioned since then for Nova Ensemble, Buzz Dance Theatre, Chrissie Parrott Dance Company, Festival of Perth, and the Australian Broadcasting Corporation amongst others.

Appointed Musical Director of the Fremantle Symphony Orchestra in 1998, his programming for the orchestra reflects a policy of the encouragement of Australian composers combined with a practical acknowledgement of the importance of audience and orchestra enjoyment of their music making.

David's major compositional influences include Igor Stravinsky, Sergei Prokofiev (1891-1953), Steve Reich (b. 1936), Philip Glass (b. 1937), Bill Fontana (b. 1947), Dr. Lakshminarayana Subramaniam (b. 1947) and Mark Cain. A keen interest in the music of India (particularly the Carnatic Music and temple music of South India) and Western Java permeates his compositional style. The use of music technology in combination with both the low-tech contemporary instruments

designed and built by Nova Ensemble and the traditional instruments of various world cultures is defining the aural space in which David's music exists. David is an associate artist of the Australian Music Centre.

### **Overview**

*The Isolation of Zoltán Szölősi* was a duet for cimbalom and tape (digital audio track). The backing track part was a mixture of David's recordings of my playing, a sampled cimbalom library David purchased (Moldova Concert Cimbalom for NI Kontakt, HALion & EXS24, 2011), and environmental recordings. David wrote in the program note for the work:

*Writing for the cimbalom is a huge challenge - particularly as it is so strongly identified with the Hungarian historical and musical culture. I decided to tackle it from the point of view of the problems of transplanting cultures into foreign soil - a very relevant subject in today's "multicultural" Australia. This allowed me to draw parallels between the experience of Hungarian immigrants in Australia and the cimbalom in a contemporary Australian musical context. I was particularly interested in the difficulties facing the older people who seem less able to adapt* (extract from the program note, Appendix #6).

The name Zoltan Szölősi did not refer to a specific person, it was rather an attempt to create a very common Hungarian name, akin to a John Smith in English. It was generated from a list of the most common Hungarian names.

David had originally planned to base the work on a traditional Hungarian folk song, but decided to compose his own. The text was taken from a children's song he wrote in 2010 titled "Poor Old Donkey", and was translated into Hungarian by my Hungarian friend Dr. Gábor G. Szábo. The work featured numerous sections and themes and evoked a journey through a number of Australian environments, the desert, the forest, the city, the suburbs, though the intent was not to create a programmatic travelogue.

## **Development**

Of the five composers involved in this research, I have had the longest working relationship with David Pye. This has ranged from playing his works, working with him as a conductor, and playing alongside him in various ensembles. I have always enjoyed working with David, as he is able to explain his intentions in a concise manner, and as he has a background as a performer, he has an intimate understanding of the technical requirements required to play his percussion music. I also feel I have developed an appreciation and understanding of David's compositional style.

The conversation around David writing a piece for me began when we were both working on a performance of Zoltán Kodály's *Háry János Suite* with the Fremantle Chamber Orchestra in September 2009. David was conducting and I was playing the cimbalom part on my small cimbalom. This was my first experience using the cimbalom in an orchestral context, and it was a steep learning curve both in working through the part and playing in a large ensemble. David was conducting and was able to help me play the part in a way that fitted in with the ensemble. David was fascinated with the instrument, and we began to discuss the possibility of collaborating to create a piece. In February 2012, almost two and a half years later, we started the process of creating *The Isolation Of Zoltán Szőlősi*.

## **Initial Meeting**

David and I discussed a number of possibilities for the piece, as he had already given a deal of thought to the potential directions of the piece. The prominent idea was the use of two cimbaloms, one of which could be prepared. The practicality of composing a work for two cimbaloms to be played by one person seemed ambitious, and the idea of having one of the parts pre-recorded was raised. This would allow for a greater deal of complexity in the parts and interplay between the instruments, as if they were both played live, the interplay would be limited by the practical possibilities of one performer. David was inspired by a performance of Martin Wesley-Smith's *For Marimba and Tape*

(1983) in 2011, and a piece for cimbalom and backing track was a logical extension.

The development of this work took place in a number of areas: the first was our experiments with preparing the cimbalom, second was the creation of the backing track, and finally the development of the performance part.

### **Cimbalom Preparation Meeting**

David suggested a number of techniques I was not previously aware of including bowing the cimbalom using loose bow hairs or hairs affixed to pop-sticks, and the possibility of retuning the cimbalom. At the time of the initial meeting with David, I had completed most of my initial meetings with the other composers and there was a great deal of interest in possible ways of preparing the cimbalom. I conveyed this to David and his concern was that I would end up with numerous pieces involving complex preparations, and the potential trouble this would cause when performing the works live if there was a significant amount of time needed to prepare each piece. As a result, David decided that the prepared elements would only appear in the backing track part. The description of using bow hair to play the cimbalom was included in the manual, but only that of using loose hairs (page 50, Appendix #1). The reason I did not include the information on the possibility of using bow hairs affixed to pop-sticks was because I did not have the opportunity to test the effect, and thus could not write about its effectiveness.

David had prior experience retuning all the strings of a piano to one chord, and he appreciated the rich sound of the entire instrument (approximately 220 strings) playing one chord. I was highly doubtful whether retuning a cimbalom in this manner would be possible due to the inherent spacing of the bridges, and also wary that it may compromise the structural integrity by applying too much pressure for the instrument. A significant work for retuned cimbalom is *Interferences* (1979) by László Dubrovay. This work for two cimbaloms, calls for each series of strings for one pitch to be tuned slightly differently so as to create interferences in the sound when one pitch is struck. The given pitches for each

cimbalom are also slightly different, enhancing the interferences in the sound. This approach to retuning the instrument is only a slight alteration to the intended system, whereas David's idea was more radical. We decided to approach this concept of having one chord sound when the entire instrument was strummed through preparation techniques.

In a meeting at David's studio we experimented with preparing my small cimbalom, and David sampled these sounds for digital manipulation and the eventual creation of the digital backing track part. We trialed a number of different preparation techniques, with a basis in the piano preparation techniques David had used previously. Through placing wooden pegs between the strings of one pitch (Figures 93-94), it was possible to dampen the string so it produced very little pitch when strummed. We selected a chord and dampened all the strings that were not a part of this chord for the lowest two and a half octaves of the cimbalom. This technique of damping the strings is similar to the rubber tuning mutes used by piano and cimbalom tuners. When strummed, the resultant effect was one chord sounding, as these pitches were left to vibrate freely.

This was very effective, as it was possible to play the cimbalom in a number of ways and have only the desired strings sounding. To sound the strings we experimented with strumming the strings, hitting the strings, hitting the frame, and buzzing a ruler on the frame. The sound produced by strumming the strings was reminiscent of a sitar, and produced the most vibration in the unprepared strings. Playing a low palm cluster in the bass produced the next most vibration in the strings, with a combination of the struck strings vibrating and sympathetic vibration from those not struck. Hitting the frame produced only sympathetic vibrations, and finally, buzzing a ruler that was held with its base on the frame produced very subtle sympathetic vibrations in the strings.





Figure 93: Clothes-peg preparation top view.



Figure 94: Clothes-peg preparation side view.

We next tried weaving paper between the bass strings to create a buzzing sound, the same technique I had tested in my initial meeting with Elizabeth Bonny. We used two different methods of weaving the paper, starting below the string and above the string. Starting the weave below was the most effective in creating a consistent and interesting buzzing sound (Figure 95).



Figure 95: Paper strip preparation.

We then used the metal spring from the middle of a clothes peg to create a buzzing sound and this was particularly effective. The spring was manoeuvred so it was resting upon the strings (Figure 96) and when these were struck it vibrated on the string, creating a buzzing effect lasting for a number of seconds. The advantage of the spring-buzz over the paper strips was the spring didn't dampen the strings in the way the paper had, and the resultant effect was the notes rang with the usual clarity with the addition of a buzzing sound. This technique was very effective sonically and as a preparation, as it was quick to prepare, and could easily isolate single pitches. This was included in the manual

(page 49, Appendix #1) and it is a technique I would like to further explore in the future.



Figure 96: Clothes-peg spring preparation.

The final preparation was placing screws between the strings (Figure 97). This is a common method of preparing a piano, as used by John Cage, and if placed in the correct position, the harmonics of the string are elicited when struck (Pritchett, 2007). This technique was ineffective on the cimbalom and thus I do not believe it to be an effective preparation method for the instrument.



Figure 97: Screw preparation.

For each of the mentioned preparations, with the exception of the screw between the strings, we recorded the sound of each preparation at this meeting. In the case of the pegs muting the strings, we recorded the various strumming, hitting, and other effects mentioned previously. For the other preparations, we recorded one string at a time throughout an octave, which David could then modify so as to have a complete sample library for the backing track.

### **Creation of the Backing Track**

The backing track was created through a combination of recordings of environmental sounds, a cymbalom sample library, and recordings from our cymbalom preparation session. The environmental sounds include the desert, the city, the suburbs (new estate), and the forest, and were a combination of David's recordings around Western Australia, and downloaded samples. David digitally manipulated the cymbalom recordings in a number of ways, including reversing the sounds to create swelling chords, pitch manipulation, and various effects.

The recordings of the percussive playing effects from our preparation session were sampled and ordered so as to create rhythmic patterns.

The relation between the backing track and the performer's part was at times quite free, and at others very precise (as seen in Figures 98-99 respectively). The backing track part was notated as cues in the performer's score, and the atmospheric sections allowed the performer to play with a sense of rubato. To facilitate staying in contact with the backing track in the opening section, David marked what he termed the 'earth chord', a chord that grew and then faded away. David marked the peak of these swells as in the following example (see the red box in Figure 98), and they served as guide points in the backing track. As a performer, I appreciated the moments of freedom within the set structure of the backing track, as it allowed for different interpretation and felt open and expressive. Later sections of the performance part were to be played exactly in time with the backing track, as the parts interlocked rhythmically (Figure 99).

The image shows a musical score for a piano and voice. The score is in 3/8 time and consists of two systems. The first system (measures 12-15) features a vocal line with lyrics 'jajl', 'jajl', and 'Sze - ge ny'. The piano accompaniment includes a wavy line labeled '[earth chord]' at the end of the system. The second system (measures 18-21) features a vocal line with lyrics 'o - reg', 'sza - mar', 'O - reg - es fa - ra - dt'. The piano accompaniment includes a wavy line labeled '[crow]' and a section labeled 'tap wood' with a 3/4 time signature. A red box highlights a specific cue in the piano part, consisting of a wavy line with a double-headed arrow and a circled '8'.

Figure 98: Backing track cue in the performer's part from the first draft.

The image shows a musical score for a piano and voice. The score is in 3/8 time and starts at measure 142. The tempo is marked 'vigorously' with a quarter note equal to 120. The piano part features a complex rhythmic pattern with many sixteenth notes. The vocal part has lyrics '[tape]' and 'f'. The score is marked with a forte 'f' dynamic.

Figure 99: Rhythmic backing track cue in the performer's part from the first draft.

The sounds in the backing track were intended to evoke some of the sounds of living in Australia, from the natural world to the cities. These natural sounds included buzzing flies, crows calling, various frog sounds, wind, rain and thunder. These sounds were placed over atmospheric landscape sounds, resulting in a sonic representation of the Australian natural landscape. The city sounds included hammers, cars driving, skidding and crashing, drills, saws, horns honking, and sirens blaring. These sections served as an almost overwhelming contrast to the placid sounds of the natural world and created a sense of urgency and movement.

David has a particular fascination with the sound of frogs, and has a digital catalogue of his own recordings of many different squawking, screeching, and quacking frogs. He explored the use of these sounds in an earlier work for marimba and backing track titled *their kind of moon* (2007). Sequenced frog sounds created rhythmic patterns that the marimba interacted with. David has taken a similar approach in this work, and sequenced various frog sounds to create a rainforest section with rhythmic frog calls.

David's combination of the cimbalom and the backing track was interesting as they had changing roles. For the first two minutes of the work, the backing track played solo, creating an expansive bed upon which the cimbalom could present the folk melody. At the end of this melody, the backing track grew in volume and intensity, overwhelming the sound of the cimbalom and changing the mood of the work. The cimbalom and the backing track then interlocked, before the sounds of the frogs introduced the new section and environment. The cimbalom took the lead and played mostly solo until the frogs returned in a rhythmic manner. The cimbalom and backing track continued to play together and created a similar swell as the 'earth chords' in the first section of the work, achieved by a crescendo from the backing track into the cimbalom chords. The backing track then served as a rhythmic accompaniment to the cimbalom's semiquaver passages before both parts decreased in rhythmic intensity to transition to the atmospheric sounds of the opening material. The backing track then faded away, leaving the cimbalom to finish the work. The changing relationship between the

backing track and the instrument is similar to Martin Wesley-Smith's *For Marimba and Tape*, in that there are sections where the performer is fairly free, and others where the two parts interlock rhythmically.

This variety created an interesting dialogue between the two parts, and highlighted both the cimbalom and backing track at different times. Conceptually, the two parts were significant as the cimbalom can be seen to represent the Hungarian influence, whereas the backing track can be seen to represent the Australian contribution to the work.

### **First Sketch**

David created the piece in sections, and this was realised through two sketches, before joining all the ideas together in the first draft, which was only changed slightly to create the complete score.

The first sketch contained three main ideas, a melody with accompanying bass line, an arpeggiated embellishment, and finally a hand dampened variant. David described how he made use of words to generate ideas for the piece, a practice he had experienced when working with contemporary dance choreographers such as word games (personal communication 21<sup>st</sup> June 2012). The following table shows how David translated the word 'cimbalom' into musical ideas for the creation of the theme for the first sketch. Figure 100 shows the outcome of this musical translation, and as seen in this example, 'cimbalom' forms the skeleton of the melody. This melody was further embellished through passing and neighbouring notes. The letters in red were converted into musical pitches; the letters in blue were converted into rests.

Letter	Musical Approximation
C	C
I	Rest
M	Mi the third scale degree E
B	B
A	A
L	La the sixth scale degree A
O	Rest
M	Mi the third scale degree E

bar 104 *allegretto* ♪ = 120

*mp* C I M B A L O M

Figure 100: Analysis of one of the main themes showing the influence of the word 'cimbalom' as a compositional tool. Example from the first draft.

The theme was first presented with a simple ascending bass line and then played in the bass with an arpeggio above (see Figure 101). The theme was then further developed with longer arpeggios (see Figure 102). This style of writing was effective on the instrument, and the use of the arpeggios was a link to the traditional folk practices.



Figure 101: First theme from the first sketch.

Figure 102: Arpeggios from the first sketch.

David's intention was to have the theme played in a legato fashion, over a pedal E, which was short. His idea to achieve this was to pedal the melody and to dampen the E with the fingers of the left hand. This effectively created two distinct voices whilst retaining the legato nature of the melody. The first sketch contained the theme with the grace notes as in the original version (see Figure 103), however it was difficult to accurately perform this with the dampened E occurring in close proximity. This was developed in the first draft (see Figure 104) through the removal of the grace notes to allow the easier facilitation of

both musical lines. In performance, the effect was somewhere between a muted tone and a pedal-dampened note. As the flesh of the hand was used to dampen the strings the vibration was absorbed, and the note rang for a shorter length of time. The nature of the hand as opposed to the felt of the damper created a slightly different damped sound. This technique created two different articulations simultaneously and I have already begun to explore the technique in other areas of my musical practice. I then added the hand dampening technique to the manual (page 32, Appendix #1).

damp repeated E's with the fingers of the left hand

15

*p*

17

Figure 103: Hand dampening notation from the first sketch.

damp repeated E's with the fingers of the left hand

121

*p*

[fog] [thud][tap]

123

Figure 104: Hand dampening notation from the first draft.

## Second Sketch

The second sketch began with simultaneous four note chords (Figure 105). This is not a traditional performance technique on the cimbalom, and the realisation of these chords required the use of four mallets, a technique I borrowed from my experience with keyboard percussion instruments such as the marimba and vibraphone. David had considered the layout when writing these chords and had chosen note pairs that lay in close proximity in a lateral plane. The four chords were treated in sequence, and could all be played with similar hand positions. This made the execution of the technique easy for the performer.

Figure 105: Four-mallet writing from the first draft.

David considered the layout of the notes on the instrument throughout his compositional process, and even developed his own layout diagram (see Figure 106). There was a layout diagram provided in the manual, however it did not have the number indicators on his diagram. The numbers next to the pitches on his diagram are indicators for his audio software, not the standard musical designation. David printed this layout to an A3 size, and kept it by him when composing, checking aspects of playability as he went. David conveyed to me that he had considered and made melodic choices based upon the physical layout of the instrument, such as the three octaves of Ebs in bar 158 (personal communication 21<sup>st</sup> June 2012). This layout-inspired approach is similar to passages from the work *Sonatina* by Peter Maxwell Davies (1984) such as in bar 36 of the first movement and bars 7 and 11 of the second (of *Sonatina*), in which

the melodic phrases have obviously been inspired by the physical layout as the phrase is played as a linear progression through the layout. David's experience as a percussionist afforded him an insight into the basic motions required to play the instrument, and the material sat well on the instrument as a result. David also described the influence of the layout on his compositional process, saying that he wrote specific ideas to exploit the unique layout. He also described the challenge of writing for an instrument where the standard patterns he would write on other instruments, such as the marimba or piano, would not work. As a result he had to develop his approach to seek new ways to articulate his ideas in a way that would suit the strengths of the instrument.

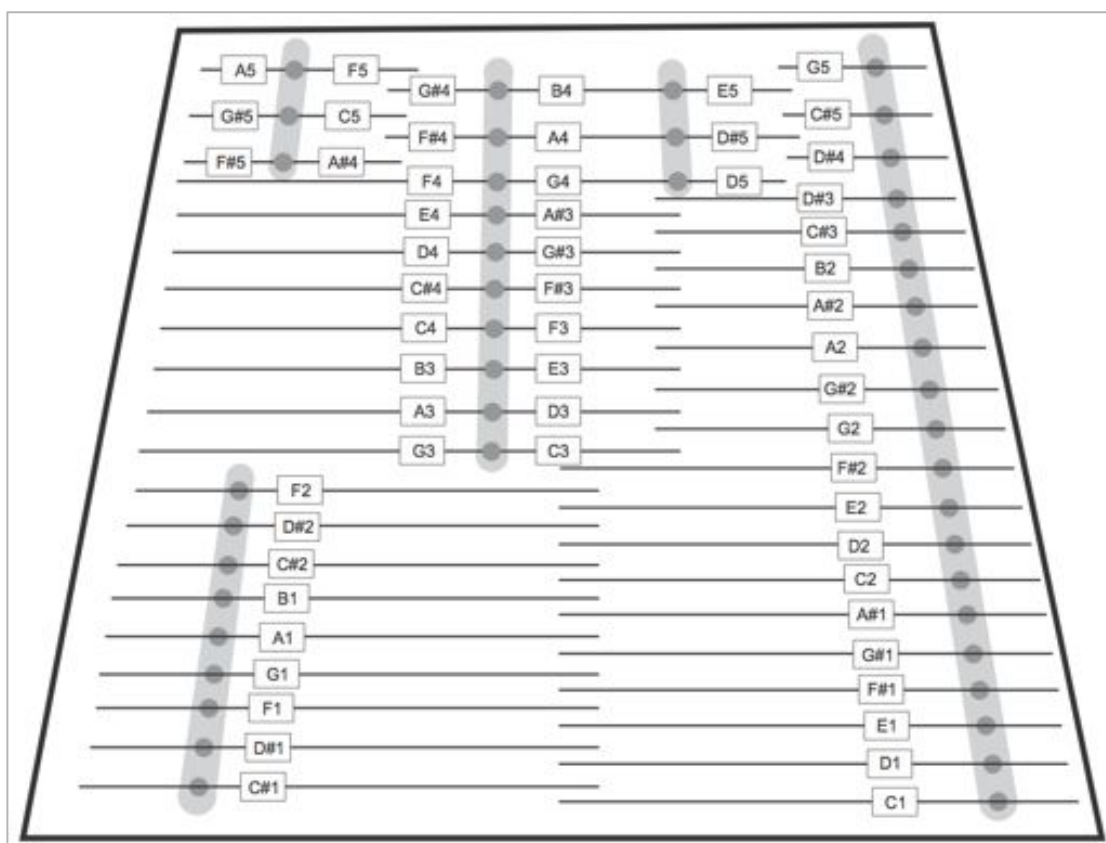


Figure 106: David Pye's cimbalom layout diagram. Used with permission.

The second section of the second sketch was a highly energetic and at times frantic series of semiquavers (Figure 107). I appreciated the link of these running semiquavers to the marvellous improvisatory cimbalom playing in the traditional folk styles, with the cimbalom's improvised solos being built

predominately on semiquaver rhythms. Ádám Baráz's work, *Toccata* (2005), features a very rhythmic approach to the cimbalom and David's writing in this section is reminiscent of this work. David's treatment of the cimbalom in this manner was sequential, in that the six bar idea was moved downwards by a tone with each repeat. The way in which he wrote for the semiquaver movement was very interesting as it combined scalar motion with interesting rhythmic inflections. Of these six bar phrases, the first four bars was an embellished upward moving scale, and the last two bars featured a three-semiquaver rhythmic cell which progressed back down the instrument. I found this musically interesting as when played against the straight 4/4 rhythm of the backing track, the accent shifted across the beat. David's writing in this section was both rhythmically and musically interesting, and the majority of the material was well written in terms of playability.



Figure 107: Semiquaver passage from the second sketch.

There was one part of the second sketch that I had trouble realising, and this was the series of sextuplets followed by demisemiquavers (Figures 108-109). I found this passage was very difficult to play at the required speed of 120 beats per minute. David's intention for this section was to utilise double sticking in one and then both of the hands so as to add further interest to the third repetition of the melodic sequence. I struggled with this technique in practice, aiming to increase my hand speed, and especially that of my right-handed double strokes. David had believed it was possible to utilise the rebound of the mallet to play the double stroke, as is possible on a snare drum, however due to the lightweight nature of the cimbalom mallet's head, the rebound is minimal. This means that the majority of the movement is driven by the arms/wrists/fingers in varying

degrees for different people's techniques. At times I was able to play the printed part, but at others I struggled, so I asked David if he could write an ossia, to be included as an alternative in the completed score (see Figure 110). The ossia removed the double strokes from the phrase, and thus made it much more achievable to perform. I am confident that there are performers who could comfortably play the original version, and pursuing the written technique did develop my own performance technique, however I feel it is a good safety net to have an alternative version for performers with slower hands as the backing track speed cannot be changed. David's approach in this section is similar to that of Vladimir Rotaru in the *Toccatina* movement of the work *Improvizație și Toccatina* (2004). The use of a moving line whilst the other hand plays a series of repeated notes creates a sense of perpetual motion and this is also similar to the approach used in bars 49-61 of the first etude by Géza Allaga (n.d.-b).



Figure 108: Fast sextuplet passage from the second sketch.



Figure 109: Fast sextuplet/demisiquaver section (continued) from the second sketch.



Figure 110: Ossia for the red bars in Figures 108-109 from the completed score.

### First Draft

David then combined these two sketches together in the first draft, which was essentially the completed performance score, with the addition of the ossia bars as the only development in the final score. The material from the first sketch was altered slightly, as mentioned before, and the material from the second sketch remained the same. The draft had a lot of new material, with the inclusion of the folk song melody and variants, which surrounded the material from the two sketches.

David was interested in drawing upon the Hungarian traditions and culture associated with the instrument in the piece, and had initially thought of using a traditional Hungarian folk song. I supplied him with a collection of folk songs I had purchased in Hungary, and after searching through all of these, he decided he would write his own, as he couldn't find exactly what he was looking for. He decided to take the text from a song he had written for Poynter Primary School, a local school (Pye, 2010). The text was as follows:

*Poor old donkey*

*Old and tired*

*Woe! Woe*

*Creaky bones*

*stiff and sore*

*going blind*



*hearing poor*

David then used the translation tool provided by the Google website which returned the following in Hungarian:

*Szegény öreg számár  
Öreg és fáradt  
Jaj! Jaj!*

*Nyikorgós csontok  
Merev és fájdalmas  
Mevakul  
Hallási rosszul*

David used this as the initial translation, but wanted a translation from a native speaker. I asked one of my Hungarian friends in Budapest, Dr. Gábor G. Szabó, to translate the poem, and he returned the following:

*Szegény öreg számár  
Öreg és fáradt  
Csupa szomorúság, csupa bánat!  
(Jaj! Jaj! - this can be the last sentence if the above, more artistic is too long  
for the music)*

*Csontjai nyikorognak,  
Nehézkesek, fájdalmasak,  
(lassan-lassan) Mevakul  
Hallása (is) gyengül...*

David used elements of this translation with the final text as follows:

*Szegény öreg számár  
Öreg és fáradt*

*Jaj! Jaj!*

*Szegény öreg számár*

*Öreg és fáradt*

*Jaj! Jaj!*

*Csontjai nyikorognak,*

*Nehézkesek, fájdalmasak,*

*(lassan-lassan) Megvakul*

*Hallása gyengül...*

*Hallása gyengül...*

*Hallása gyengül...*

The intention of the text was not for it to be sung, but for the speech rhythms to influence the phrasing of David's folk melody. The words were included in the score for the first appearance of the folk melody, and this gave the performer an indication of the syllabic stress, and showed the song-like nature of the theme. The setting of the text is shown in Figures 111-112.

bar 6

*p* Size - ge ny o - reg sza - mar O - reg - est fa - ra - dt tap wood

12

jaj Size - ge ny [with chord]

18

o - reg sza - mar [trill] O - reg - est fa - ra - dt tap wood

23

jaj

Figure 111: Text setting of David's melody from the first draft.

20  
Cson - tjai nyi - ka - ro - gnak Ne - hez -  
[earth chord]

33  
ke - sek faj - dal mo - sak las - san las - san Meg - va - kul  
[crow]

38  
Hal - la - sa gyen - gul Hal - la - sa gyen - gul  
[crow] [earth chord]

43  
Hal - la - sa gyen - gul  
[back]

Figure 112: Text setting of David's melody (continued) from the first draft.

David made use of a number of interesting techniques in the first draft, with the inclusion of harmonics, gradual pedalling, and low palm clusters. The palm clusters in bars 98-102 are similar to the use in the *Mosiaco* movement of the work *Suită Concertantă* by Igor Iachimciuc (2004). David and Igor Iachimciuc use similar notation for this effect. This technique is also used in the Boris Dubosarski's work, *Reflectare*, in the *Lento* section (2004). David's use of harmonics was brief, and the resultant effect was a beautifully subtle final repeat of the last line of the song (see Figure 113). In a rehearsal preparing for the performance, David found the harmonics hard to hear over the backing track part and rewrote this section to be plucked two octaves higher. David wrote for the gradual release of the pedal over a bar of repeated E's (see Figure 114), which prepared the following section with the combination of a legato melody of

the staccato E's. The use of palm clusters (see Figure 115) was in the section of the work where the backing track part is built upon storm sounds. These low palm clusters were used in a thunder-like manner, and they created a deep resonant sound, an effective comparison to thunder.

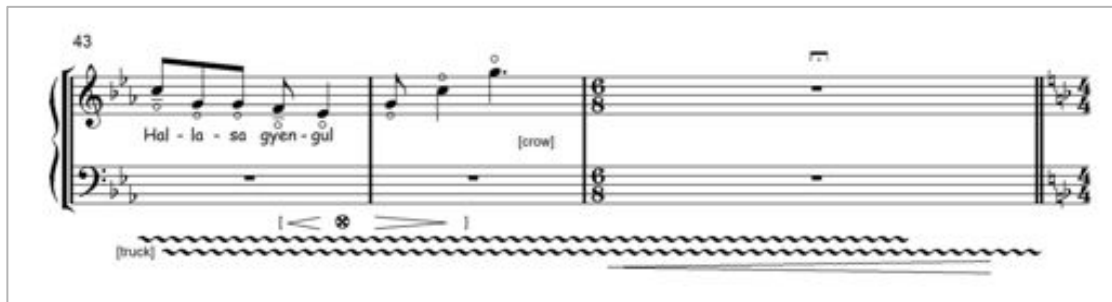


Figure 113: Harmonics notation from the first draft.

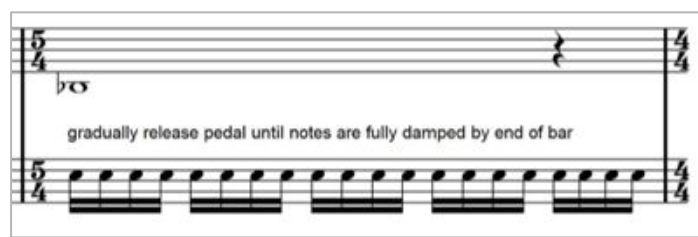


Figure 114: Gradual dampening notation from the first sketch.



Figure 115: Palm cluster notation from the first draft.

David's major contribution to the manual was the application of one-handed roll techniques. As mentioned in the discussion of Elizabeth Bonny's piece *Erre L'Otmito*, this was a technique I had used extensively on marimba, but I had not applied it to the cimbalom. I had thought of multiple mallets for chordal possibilities but it wasn't until David suggested the technique that I was aware of the application.

## Reflection and Conclusion

*The Isolation of Zoltan Szölösi* was a very approachable work for an audience, and the combination of the backing track with the cimbalom added an extra element of interest to the work. The musical material was tonal, and had moments of great beauty and stillness, followed by violent gestures, and funky rhythmic patterns. The work has the potential to be a popular concert piece for the cimbalom, and the inclusion of the sounds on the backing track effectively conveyed atmospheres of the Australian environment. The piece was challenging to prepare as the sections were very different, and all required different approaches and techniques. The constantly changing nature of the piece and the inclusion of these different sections was one of the reasons I enjoyed playing the work, and this also kept the audience intrigued (personal communication 5<sup>th</sup> March 2013).

## Summary

This chapter has detailed the major components of the research project, with special attention to the creation/development of the manual and the creation/development/performance/recording of five new Australian works for the Hungarian concert cimbalom. As shown, the works were varied in musical style and in compositional approach to the instrument. The process of refining the works was very important, as my understanding of the cimbalom was broadened as a result of the concepts developed by the composers. The composers' desire for specific sounds, techniques, and musical gestures spurred my imagination to be able to develop practical performance solutions to realise their ideas. The material that they composed provided a base for my own experimentation, and as I have shown in this study, a number of techniques and concepts evolved from this process. The exploration of extended techniques on the cimbalom also saw new attempts at notation, which may prove useful for future works.

My involvement as a composer was such that I was able to collaborate to develop the works also from the point of compositional development. This collaboration strengthened the research, as it invited extra musical approaches into the

project, and the benefit is shown in the highly varied nature of the works. This is shown through the diversity of the areas of interest the composers pursued:

- various extended techniques
- preparation
- use of non-traditional cymbalom mallets
- creating soundscapes
- the timbral nature of the cymbalom
- the decay of the sound
- percussive effects
- utilising the sympathetic resonance of the cymbalom

The manual was proven to be both informative for the composers and very beneficial to the composition process, and collaborating with the composers in turn influenced the manual. Whilst the information in the manual was taken from a number of sources, most importantly the extant literature, a number of developments were made throughout this research which included:

- retuning the cymbalom
- a conceptual breakdown of the physical note layout into smaller sections
- location of specific percussive effects on the cymbalom
- muting using the forearm
- incomplete harmonic in that not all strings of a note are played as a harmonic
- an exploration into a number of non-traditional cymbalom mallets and the particular techniques available with these
- conceptual understanding of the multiple glissando paths available
- notation of the relative pitches of the untuned portions of the strings
- preparation experimentation and outcomes

Whilst I do not claim all of these developments to be original to this research, it is possible that the developments of techniques and approaches to the cymbalom, contained within the manual and the works, would be beneficial to the cymbalom community.

## Conclusion

This Chapter discusses the outcomes of the research project, as well as the three research questions. The implications for future research as arising from this project are also addressed. My central desire for initiating this project was to create new Australian repertoire for the Hungarian cimbalom. The generous support of the composers realised this goal, with the creation of five new Australian works for the Hungarian cimbalom. These works are a significant addition to the existing Australian repertoire, which I have shown to be very small. The project was also a success in a personal sense, as the process of working with the composers, developing the works, performing and recording them was highly beneficial to my cimbalom practice. It has also greatly strengthened my technical ability, and diversified my conceptual understanding of the cimbalom.

The three research questions generate the outcomes that are discussed below:

1. The creation of a technical manual for the cimbalom significantly assisted the creation of new Australian musical works. The composers I collaborated with conveyed their appreciation for the manual and the benefit it provided to the composition process (personal communications 15<sup>th</sup> March 2012, 19<sup>th</sup> May 2012, 5<sup>th</sup> June 2012). The manual was developed in response to the lack of information and conflicting information found in the reviewed literature. The manual was an important communication tool, enabling me to collate information from a number of sources, supplement it with my own experience, and to distribute it to the composers. The ability to include detailed information pertaining to the range, layout, general notation, mallet selection, and extended techniques had a noticeable impact upon the works. This effect was evident to varying degrees within each work, but particularly evident in Christopher de Groot's use of almost all of the mallet types listed, David Pye's writing for four mallet cimbalom techniques, and Johannes Luebbers' and Elizabeth Bonny's use of double notes with a single mallet. As a performer I was aware that the manual was beneficial to the process as it was an effective way of providing a vast source of information



that could be accessed at the composer's requirements, meaning I did not have to field numerous questions about the instrument.

It was evident when meeting with the composers that the information contained in the manual was also a starting point from which they could explore the instrument, and this was an interesting parallel to my process with the musical material they developed for my performance. In this regard, the manual was adapted to include the findings of the explorative processes. The manual has remained a working tool for composers' use and remains a work in progress.

2. The collaborative process between the composers and myself informed the creation of original Australian musical works for the cimbalom through an inclusion of an enriched diversity of musical backgrounds, which resulted in the creation of stylistically and musically varied works. The collaborative process between the composers and myself was embedded in every step of the development of each work. The concepts developed by the composers 'bounced-back' between them and myself, through the process of the composers developing the drafts, my personal rehearsal of the material, and then the collaborative discussions that arose from these. This process made use of the embodied knowledge of both parties, and allowed one person's creative process to influence and inspire the other, which was then reflected back, and continued throughout the collaborative process. Similarly to the use of the manual, the degree to which this collaboration occurred varied between the works, as the working relationships differed due to their particular interests, locations, and time frames, which all impacted upon the process.

The works were highly varied stylistically, with a site-specific work, a cimbalom and digital backing track work, a lyrical work featuring various hand techniques, a timbrally shifting/soundscape work utilising different mallets, and a minimalistic work using different mallets, preparation, and extended techniques. The interaction with multiple composers was highly beneficial to my own practice, as they each brought different possibilities and concepts to playing the cimbalom that I had not previously considered.

3. My performance of the original Australian musical works elucidated the unique qualities of the cimbalom particularly through the use of a number of extended techniques and approaches developed in the works. These included the use of non-traditional cimbalom mallets, the exploration of the un-tuned portions of the strings, the experimentation with percussive and soundscape effects, as well as conceptual approaches including locating the cimbalom in a highly reverberant site and allowing the decay of the instrument to be explored as a compositional technique. The process of developing the works and preparing them for performance and recording provided a stimulus for the development of extended techniques, which elucidated unique qualities of the cimbalom.

The works challenged my technical ability and perception of the cimbalom, and highlighted unique qualities of which I was previously unaware. I am proud of the repertoire developed, and the performances I gave. As mentioned previously, the presentation of the works in performance for a variety of audiences garnered positive feedback, and in this way I perceive the works and my performances as successful. As a musician, I am always striving to further my musical ability and understanding, especially on the cimbalom as I have been studying it for a shorter period than my primary percussion instruments. In this manner, my performances of the works in the future will continue to develop, as my increasing cimbalom technique will allow me to realise the performative and musical impulses I can already imagine. I am optimistic that the international cimbalom community will embrace these works and I believe the project is the most significant solo cimbalom project in Australia to date.

To further promote the works, I intend to make studio-quality recordings of the works, as well giving performances at Australian and possibly international festivals, and the works will be self or commercially published by the composers. I also intend to make the manual available for composers and performers through the Internet.

## Implications for Future Research

Two major avenues for future research have arisen from this project: the continued development of the manual, and further exploration of extended techniques on the cimbalom.

The manual was a vital tool for the composers, and its continuing expansion would be extremely beneficial to composers and performers alike. It would have the potential to further develop new approaches to the instrument, as composers and performers experiment and build upon the techniques already contained. The manual could be extended to include audio/video components of all techniques, in essence providing a performer-on-demand to demonstrate techniques. It could include: an interactive note layout, allowing the composer to see where particular notes are located as well as enabling them to consider aspects of movement and practicality; further detailed information on extended techniques; further details of preparing a cimbalom, with examples of tested methods and sounds; and more score examples, to provide an indication of previous approaches to writing for the instrument, which may include stylistic figuration examples.

Throughout the discussion of the project, I have outlined a number of techniques that were attempted and abandoned for differing reasons, including the practicality within the musical situation and the resultant effect. The exploration into extended techniques in this project was beneficial, and has the potential for further exploration of these and other techniques.

The cimbalom is an exciting instrument, capable of producing a wide spectrum of sonic effects. Miklós Lukács sparked my personal interest in extended techniques, and this project has affirmed my belief in the exciting possibilities for the cimbalom, which has lived up to Lukács' description as the "infinite treasure chest" (Camon, 2007).

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## Appendices

### #1 The Manual text

# The Concert Cimbalom: A manual for composers

By Joshua Webster

## DISCLAIMER

The information given in this document is not absolute. Every effort has been made to be thorough but it is neither possible nor practical to list every single piece of information relevant to composing for the cimbalom as techniques and approaches change, instrument makers experiment with new designs and technologies evolve. Composers are advised to communicate with the cimbalom performer to discuss the particulars of their instrument and technique before writing.

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## 1. INSTRUMENT CHARACTERISTICS

### 1.1. THE CIMBALOM

The cimbalom (tsim-bah-lom) is of the zither lineage and is part of the dulcimer family, which includes related instruments such as the hammered dulcimer, hackbrett, yangqin, and santur. These instruments differ through range, pitch layout, mallet type, resonance, and playing techniques. The concert cimbalom is the largest instrument of the dulcimer family. In 1874, the cimbalom was heavily developed and it has since found a place in orchestral works, opera, chamber music, and solo works. The cimbalom also has an extensive folk music tradition throughout Hungary, Romania, and surrounding countries.

The cimbalom sounds similar to the piano and is similar in other ways including: a large resonating chamber, multiple strings for almost all pitches, and a damper pedal. It differs from the piano in that it has no keyboard and bridges divide some strings creating different pitches on either side. There is a great possibility for sound variation on the cimbalom as the player can change the mallet, striking location, use of pedal, stroke articulation and numerous other factors.



*Cimbalom owned by the author built by Pavel Všiánský in Brno, Czech Republic. Photo taken in Budapest, Hungary. All photos by Joshua Webster.*



*Concert cimbalom owned by the Perth Hungarian Community (builder unknown). Photo taken in Perth, Australia.*



*Concert cimbalom built by Balázs Kovács in Budapest, Hungary. Photo taken in Budapest, Hungary.*



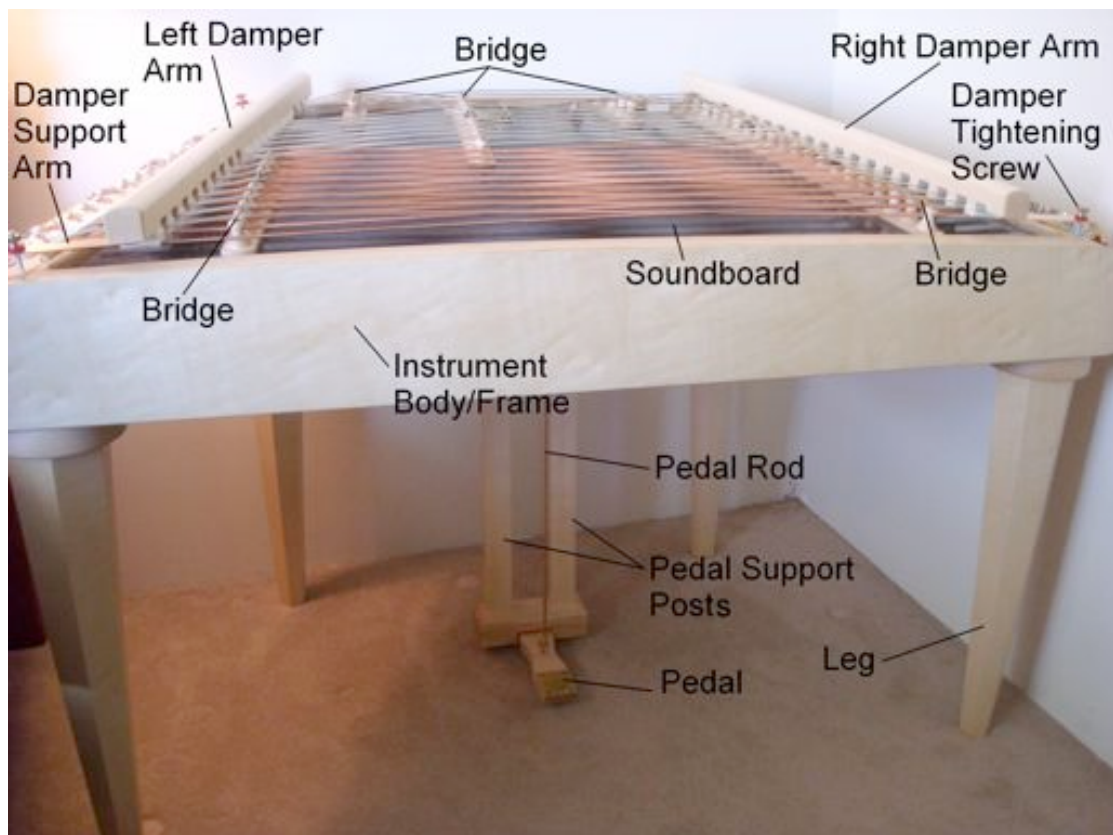
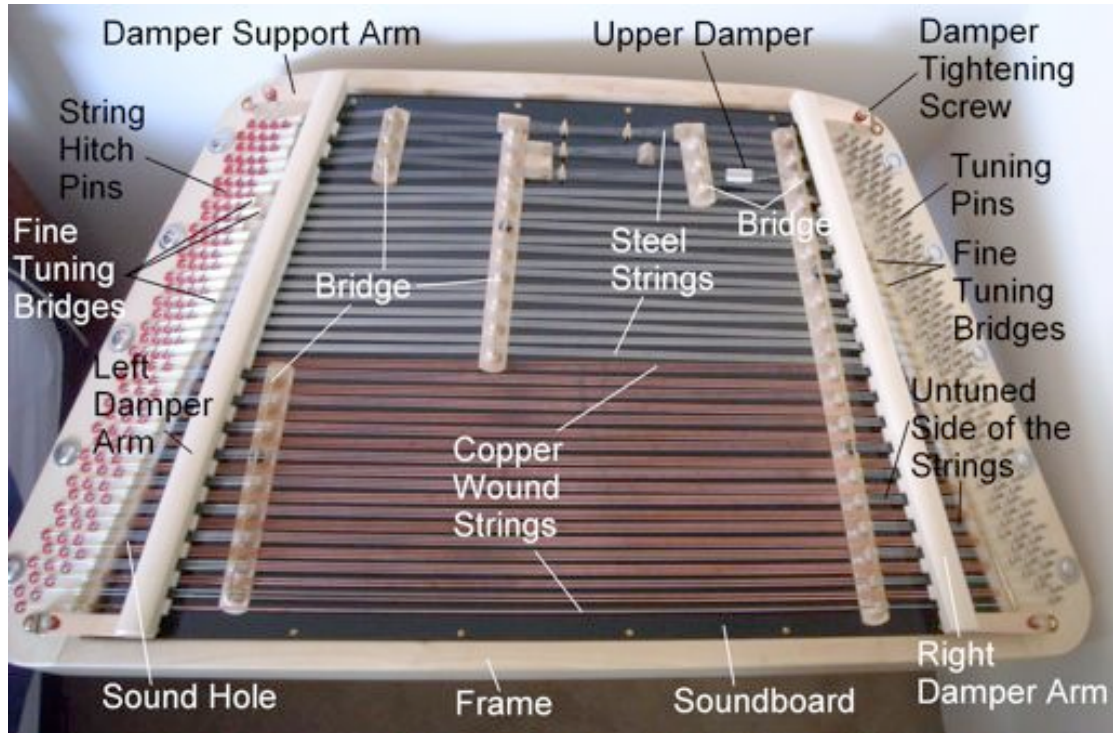
*Bass cimbalom designed and built by Pavel Všíanský in Brno, Czech Republic. Photo taken in Budapest, Hungary.*



*Smaller cimbaloms (reduced bass and treble) built by Ákos Nagy in Hungary. Photo taken in Budapest, Hungary.*

## 1.2. INSTRUMENT DIAGRAM

Whilst different cimbaloms will have slightly different designs, the following terms are standard terms for concert cimbaloms.



### 1.3. PITCH LAYOUT

The layout of the notes on the cimbalom is non-linear. There are sections where patterns exist and there is an overall low to high pitch relation moving away from the performer. The non-linear layout means notes that are close together pitch-wise may be a large distance apart. The compact layout of the notes is a great strength of the instrument as the entire range of the instrument can be covered with a relatively quick motion.

The notes can be thought of as being in two main sections:

- The copper-wound strings of the lower half.
- The steel strings of the upper half.

The steel strings of the upper half can be further divided into two sections:

- The lower section with two chessman bridges.
- The very top section with four chessman bridges.



The following image gives the total layout of the notes.<sup>1</sup>



### 1.3.1. The Copper-wound Strings



The copper-wound lower half is the most straightforward section and consists of nineteen notes in two blocks:

- The red section on the left. Nine notes.
- The blue section on the right. Ten notes.

Both the blue section and the red section are laid out in whole tone scales and due to the interlacing of the notes (blue, red, blue, red etc), alternating playing from side to side produces a continuous run of semitones.

<sup>1</sup> Gerencser, Ferenc, & Szeverenyi, Ilona. (1988). *Cimbalomiskola (cymbalom tutor)*.

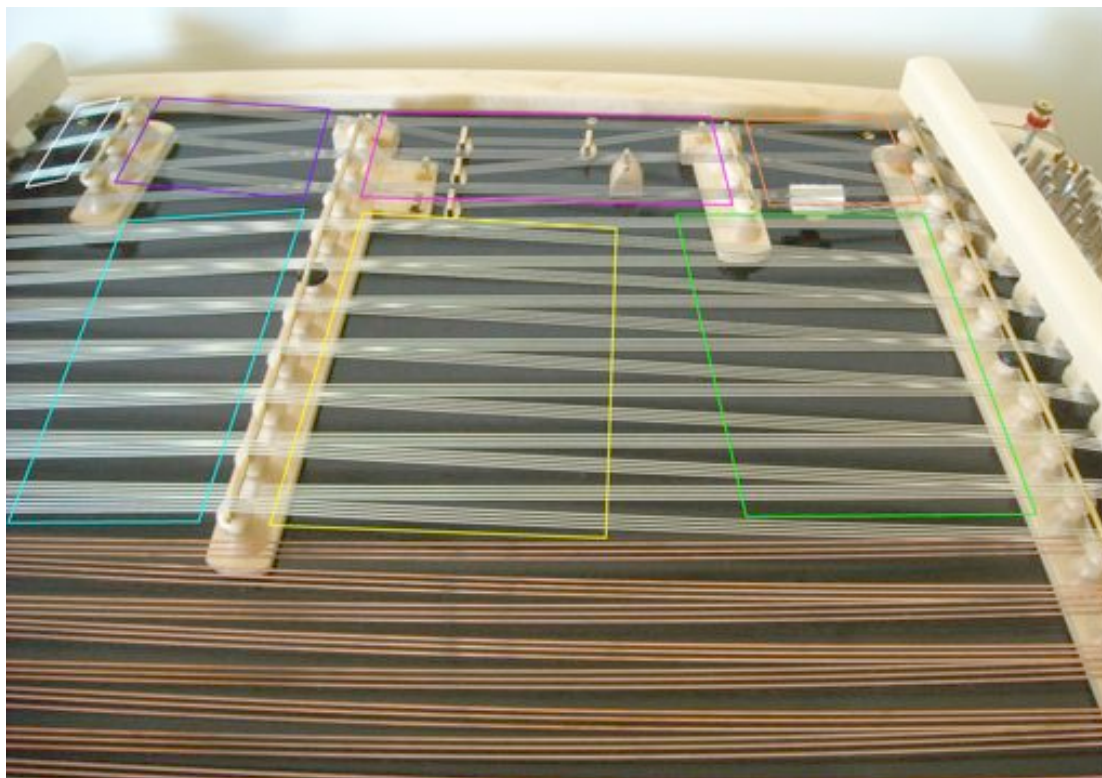


*Notes of the red section.*



*Notes of the blue section.*

### 1.3.2. The Steel Strings

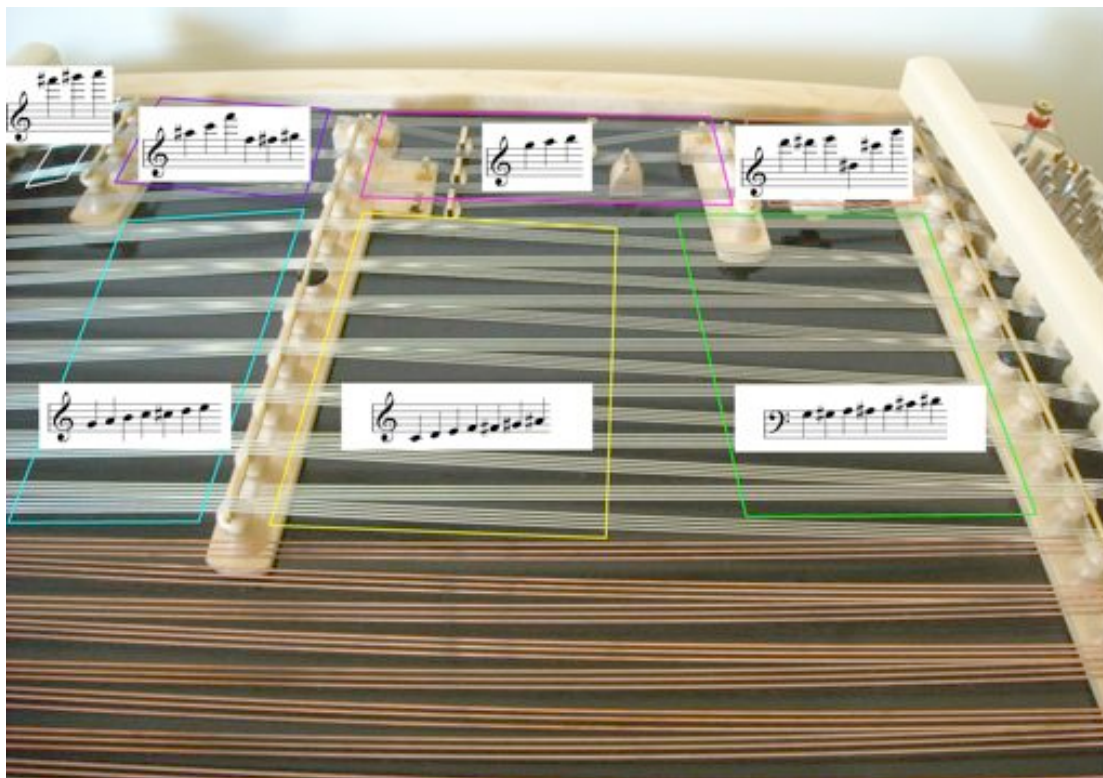


The layout of the upper section is much more complicated due to the inclusion of two extra bridges at the very top and the placement of the middle bridge. The placement of bridges in places other than the extreme sides creates notes on either side of the bridges and for this reason there are many small sections in the section with four bridges.

The upper half can be thought of as dividing into seven sections, three in the section with two bridges and four in the section with four bridges:

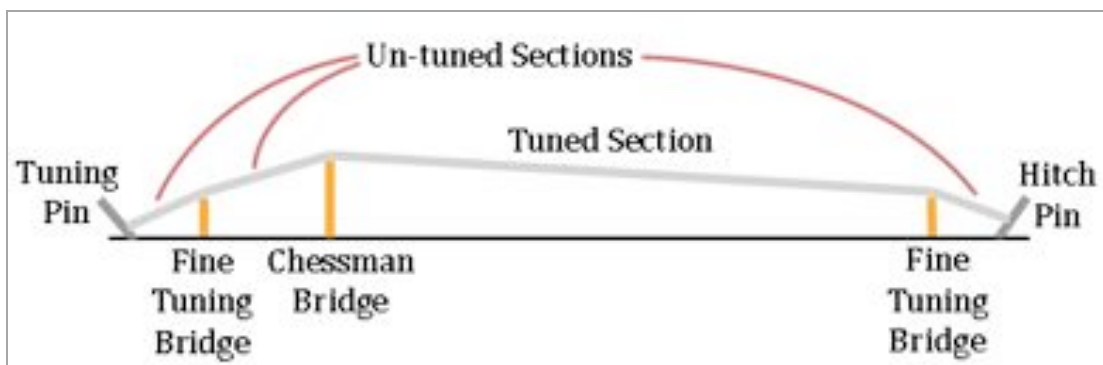
- The light blue section running along the left side of the central bridge. Seven notes.
- The yellow section running along the right side of the central bridge. Seven notes.
- The green section running along the left side of the right bridge. Seven notes.
- The white section at the very top left. Three notes.
- The purple section at the top left. Six notes (three on the left and three on the right).
- The pink section in the centre at the top. Three notes.
- The orange section at the top right. Six notes (three on the left and three on the right).

The specific notes within these sections are as follows.



*The notes within each coloured section. For the purple and orange sections, the first three notes are the notes on the left and the second three notes are on the right.*

The following diagram shows the different parts of the string, and these names are used throughout this document.





## 1.4. GENERAL NOTATION

The cimbalom sounds at the written pitch. Cimbalom music can be notated on a single staff with changing clefs or on two staves as for the piano. The use of two staves is the most common and is the easiest to read if the entire range is used in quick succession.

The following example could easily be written on one changing staff or the grand staff:



*Single staff with changing clefs.*



*Grand staff.*

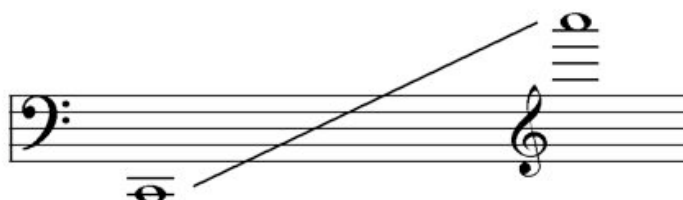
Whereas the following works best on the grand staff.



Unlike the piano, the cimbalom does not have one hand that mostly plays the melody and one to play the accompaniment. This is due to the layout of the notes and thus a melody will constantly be passed between the hands according to the layout of the notes to be played. As a general rule the right hand plays the rightmost note called for and the left the leftmost.

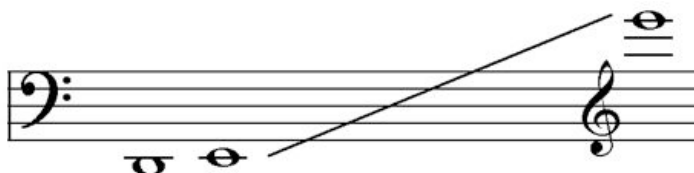
## 1.5. RANGE

The range of a cimbalom can vary greatly and often depends on when the instrument was built, as the range has generally increased over time. The standard concert cimbalom (current as of 2012) has a range of four and three quarter chromatic octaves (C2 to A6). There are also examples of cimbalom makers creating instruments with an expanded range, a lowered range such as a bass cimbalom, or instruments with a reduced range to aid in portability.



*Range of a standard concert cimbalom.*

Examples of older concert cimbalom ranges:

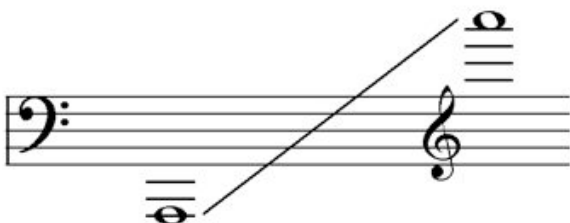


*E2 to E6 chromatic with D2 added.<sup>2</sup>*



*E2 to E6 chromatic with C2 and D2 added.<sup>3</sup>*

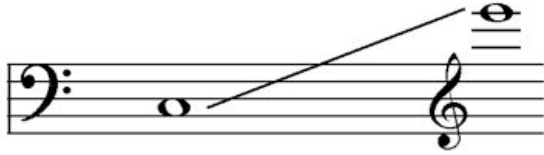
Example of cimbaloms with an extended/reduced range:



*Five-octave instrument from A1 to A6 built by Kovacs Balazs.*

<sup>2</sup> Holland, James. (1978). *Yehudi Menuhin music guides: percussion*.

<sup>3</sup> Tarjáni Tóth, Ida, & Falka, József. (1958). *Cimbalomiskola 1*.



*Cimbalom with a reduced bass from C3 to E6 chromatic built by Akos Nagy.*

It is also possible to alter the range by retuning the instrument. This is most easily achieved through tuning the bass strings lower, as these pitches are the only one per string, and as such, can be easily retuned.

## 1.6. DYNAMICS

Whilst the exact dynamic levels possible on the cimbalom will vary for different instruments, performers, and mallets, the following table shows an averaged volume for a selection of mallets on the cimbalom.<sup>4</sup> The volume was measured at a very soft dynamic (pianissimo – pp) and a very loud dynamic (fortissimo – ff). These measurements are given for the lowest string (C2) and the highest string (A6).

Mallet Type	Volume (dB to the nearest 0.2)			
	Low (C2)		High (A6)	
	pp	ff	pp	ff
Traditional – soft	51.2	80.6	48.2	62.4
Traditional – medium	51.2	81.8	50.2	67.2
Traditional – hard	54.8	78.6	48.6	67.0
Traditional – wood	60.6	79.6	51.4	69.4
Yangqin – rubber	53.2	76.8	48.8	72.0
Yangqin – plastic	57.2	73.2	52.8	71.6
Rubber – Malletech NR8R	64.2	86.0	51.8	65.4
Metal – triangle beater	54.0	78.2	50.2	58.8
Yarn – Innovative NJZ5	58.2	85.6	53.2	65.6
Hands – flesh pluck	50.4	68.2	50.0	53.2
Hands – nail pluck	53.6	72.4	50.2	62.2
Hands – flesh strum	55.2	68.8	51.6	55.2
Hands – nail strum	61.2	75.4	50.6	61.0
Hands – flesh strike	52.6	79.4	50.8	57.6
Hands – nail strike	57.0	73.8	50.8	61.8

<sup>4</sup> Measured on a Všiánský light concert cimbalom using the iPhone application ‘Decibels’ (Version 1.0) by David Bannach.

## 1.7. ATTACK TIMES

In the article *The Acoustical Characteristics of the Concert Cymbalom*<sup>5</sup> by Pap János, the attack times were measured and the results show the cymbalom has a very short attack time when compared with other instruments.

Attack times for staccato tones of some musical instruments (Meyer 1972)

Attack time staccato (ms)	Cymbalom*	Violin	Piano	'Cello	Bassoon	Horn
Low register	15-25*	60	20-30	60-80	50-80	40-80
Middle register	10-15*	40-50	10-15	20	20-30	
Treble register	5-15*	30	10-15		20	20-30

(\*measurements by Pap János)

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<sup>5</sup> Pap, János. (2000). The acoustical characteristics of the cymbalom.

## **2. MALLET SELECTION**

The possibilities for mallet selection are virtually endless as the strings or the body of the instrument can be struck with limitless objects. For this reason only the standard cymbalom mallets and a selection of regularly available mallets will be discussed. The possibilities and practicalities of using multiple mallets are also discussed.

## 2.1. TRADITIONAL CIMBALOM MALLETS

The traditional cimbalom mallets are hand-made by specialist makers around the world and thus come in different shapes and sizes. The types of mallets a player uses are determined by personal preference and availability. It is not unreasonable to assume that a concert cimbalom performer has access to a number of mallet types and whilst the specifications of the mallets may be different, it is acceptable to request soft (heavily wrapped), medium (moderately wrapped), hard (lightly wrapped), or wooden mallets (unwrapped).

The weighting of the cimbalom mallet is an interesting feature to note as most of the weight is in the held portion of the mallet. This is the opposite of percussion mallets where the weight is almost entirely in the head of the mallet. As a general rule, the head of the cimbalom mallet will be lightweight.

Pap Janos (insert reference) describes the fact that the piano has a mallet for every note, which is properly weighted and with the requisite hardness to produce a full tone. On the cimbalom, players will cover the entire range with (traditionally) two mallets and thus different mallets will sound better in different ranges.



The traditional cimbalom mallets have a wooden shaft, which can be wrapped with cotton, felt, or leather, to varying levels of thickness. Softer mallets produce a full, warmer tone however they are less articulate, especially in the upper register. Harder mallets produce a brighter, thinner tone that is very clear.



The mallet can also be left unwrapped. This produces a very bright sound with an extremely clear attack. An unwrapped (or a lightly wrapped) mallet will produce a harsh sound if played loudly.



The end of the mallet that is held in the hand is referred to as the butt of the mallet. Most of the weight in a cymbalom mallet is in this section.



It has a large section cut out and the first finger is placed in the cutout with the thumb behind and the fingers below. The fingers work with the thumb to create the motion of the mallet.



The mallet can be held back-to-front so the butt of the mallet can be used to play. Playing with the butts of the mallets simulates an unwrapped mallet and is an efficient method of creating the effect of a mallet change without having to change mallets. Swapping between the heads and the butts can be achieved safely within two seconds.



## 2.2. YANGQIN MALLETS

The yangqin (yang-chin) is the Chinese dulcimer and is closely related to the cimbalom. The mallets used on the yangqin are much thinner than standard cimbalom mallets and thus produce a lighter tone. The use of yangqin mallets on the cimbalom is not standard practice and whilst most players are unlikely to own them, there are opportunities to obtain the mallets.

One of the techniques specific to the yangqin mallet is the ability to play a fast series of notes with a single stroke. This is made possible by the flexible nature of the bamboo shaft and is executed by moving the mallet in a swift downward stroke that stops abruptly. The mallet head continues the downward motion before rebounding to a position above the stopped mallet and then continuing to oscillate up and down until it comes to rest. The amount of notes that can be played with this technique is approximately five.



The mallets used on the yangqin have thin bamboo shafts with a rubber-coated head. Some mallets may also have a hard plastic section attached to the top. To play with the hard plastic section the mallet is rotated in the hand.



The butt of a yangqin mallet can be used for plucking or strumming the strings as it has a fine point.

### 2.3. STANDARD PERCUSSION MALLETS

The most easily available of all the mallets mentioned are those used for percussion instruments, as they are widely manufactured and readily available from a large number of sources. A selection of the basic types of mallets is mentioned below.

As a general rule, percussion mallets are heavier than cymbalom mallets. The advantage of the weight is the production of a very full sound in the lower half of the instrument. The weight of the mallets is too great to produce a full sound in the upper half of the instrument as when the note is struck, the sound of the impact (a 'thud' sound) predominates. The higher the note, the more heavily this impact sound dominates the overall sound produced.



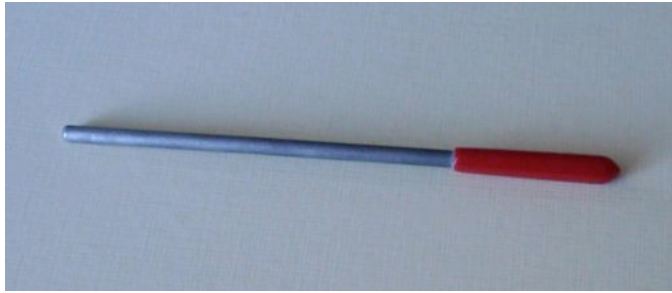
Soft rubber mallets have a medium attack with a full sound. The nature of the rubber head means the mallet will rebound off the string and this can be controlled to create a quick series of notes from one stroke (See PLAYING TECHNIQUES). They sound best in the lower half but produce a decent sound in the upper half. This mallet is a Malletech NR8R mallet.



Yarn-wrapped mallets have a gentle attack; similar to a soft cymbalom mallet and they produce a very full sound. In the upper half the sound of the attack dominates and the resultant tone is shallow and muffled. This mallet is an Innovative NJZ4 marimba mallet.



Hard plastic mallets have a very clear attack and produce clear notes throughout the range. This mallet is a Dovey glockenspiel mallet.



Metal mallets (such as this triangle mallet) have an extremely clear attack, which can be at times harsh. They produce clear notes throughout the range.

## 2.4. HANDS

The most common parts of the hands to use when playing are the nails and the pads of the fingers. The main methods of playing with the hands are to strum, pluck, strike or swipe along the strings. All of these techniques can be achieved to a varying extent whilst the hand holds a mallet, though the mallet has been removed for clarity in the following photos. As a general note, the dynamics possible when playing with the hands is much less than that with a mallet due to the nature of the attack (see 1.6. DYNAMICS for more information).

The following techniques are very specific, and in the interest of clarity for notating a technique to this degree, the suggested method is with a matter-of-fact text indication in the score. However, as a general notation, the following symbol can be used to represent the use of the nails.



### 2.4.1. Strumming the Strings



The flesh of the finger can be used to quickly strum the note (one to four strings). This produces a gentle attack and is traditionally marked as *pizzicato*. Mark as *strum with the flesh*.



The strings of a note can also be strummed quickly with the nail to produce a note with a clear attack. Mark as *strum with the nail*.



It is possible to swipe the hands along the strings to create a 'whoosh' sound. This works best on the copper-wound strings as the steel strings are slick and provide little resistance. The resultant sound is more of a sonic effect, as the fundamental note is not clearly articulated. Mark as *swipe with hand*.

#### 2.4.2. Plucking the Strings



A note can be plucked as a single string or two strings (see next image). A note plucked with the flesh will have a gentle attack.

Mark as *pluck one string with flesh*.



Mark as *pluck two strings with flesh*.



Notes can also be plucked as a single string or two strings (see next image) with the nail. A note plucked with the nail will have a clear attack.

Mark as *pluck one string with nail*.



Mark as *pluck two strings with nails*.

### 2.4.3. Striking the Strings



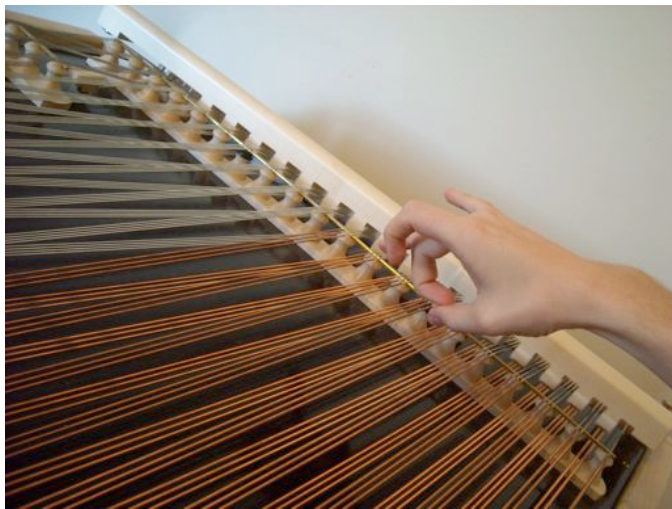
The strings can be struck with the tip of the thumb or fingers (see next image). The resultant sound has a clear attack. This technique works best for the copper-wound strings and the lower portion of the steel strings.

Mark as *strike with thumb*.



Mark as *strike with finger*.

The thumb-strike and finger-strikes can be combined to create a roll on one note or multiple notes (only possible if no mallet is held). See 3. PLAYING TECHNIQUES for more information.



The strings can be struck with the nails with a flicking motion. This technique works best for single notes.

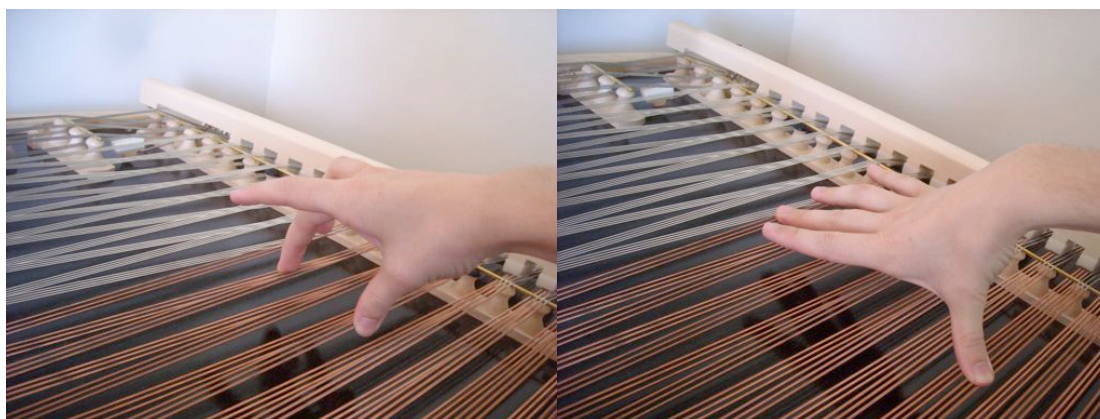
Mark as *strike with nail*.

## 2.5. PHYSICAL CONSIDERATIONS FOR HANDS

An important consideration when writing multiple notes for the hands is the distance a hand can comfortably stretch.

The following table gives a suggestion of the comfortable and uncomfortable stretches possible for the techniques described above. These measurements are for a medium sized hand with a maximum stretch length between thumb and little finger of 21cm (interval of a tenth on a concert piano).

The numbers refer to the number of notes (each note is made up of one to four strings) covered from the lowest to the highest note inclusive.



*Stretch of three notes.*

*Stretch of seven notes.*

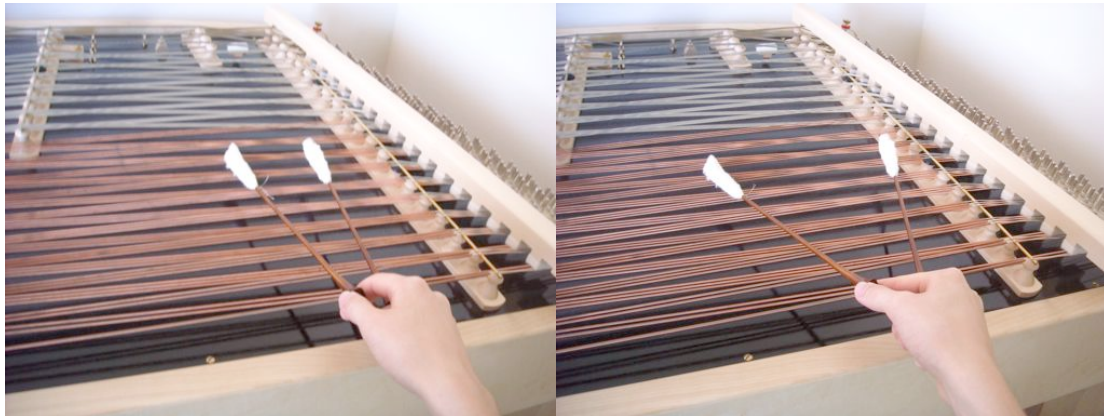
Technique	Stretch (notes)			
	Empty Hand		Hand Holding Mallet	
	Comfortable	Uncomfortable	Comfortable	Uncomfortable
Strum-flesh	2-5	6-7	2-5	6
Strum-nail	2-4	5-6	2-3	4
Pluck-flesh	2-4	5	2-4	5
Pluck-nail	2-4	5-6	2-4	5-6
Strike-flesh	2-4	5-6	Not Practical	



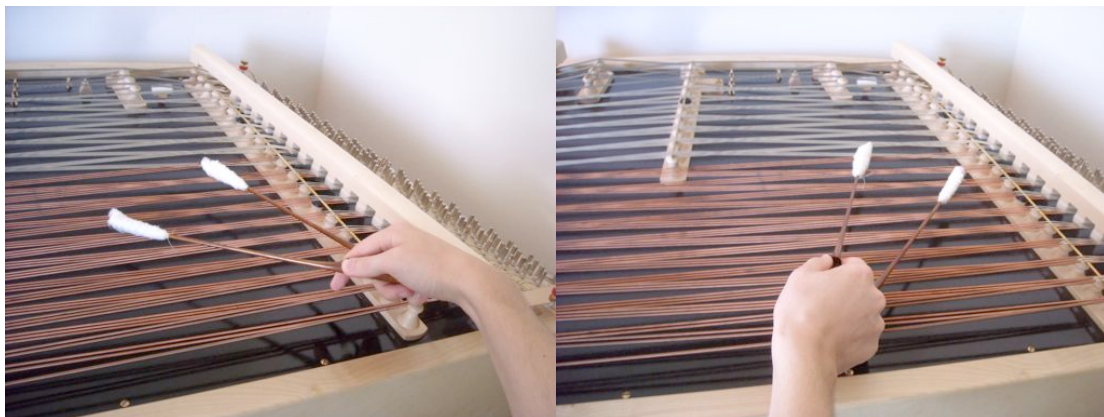
## 2.6. MULTIPLE MALLETS

Whilst not common traditionally, it is possible to play the cimbalom with more than two mallets. The standard four-mallet grips used by percussionists are advised and these can be found in the following texts: *Method of Movement* by Leigh Howard Stevens and *Four Mallet Technique* by Gary Burton. If traditional cimbalom mallets are used, the grip described by Stevens is advised. Though it is possible to use six mallets on keyboard percussion instruments it is recommended that no more than four mallets be used on the cimbalom due to the nature of the movements required to play the notes.

The approach when using two mallets in one hand on the cimbalom is different to a keyboard percussion instrument as the lateral interval changing motion between the mallets is largely ineffective on the cimbalom due to the longitudinal layout of the notes. To utilise the two mallets effectively requires a greater use of the wrist and elbow.



*The standard lateral interval change technique results in both mallets continuing to play one note on different parts of the string.*



*Outside mallet higher.*

*Inside mallet higher.*

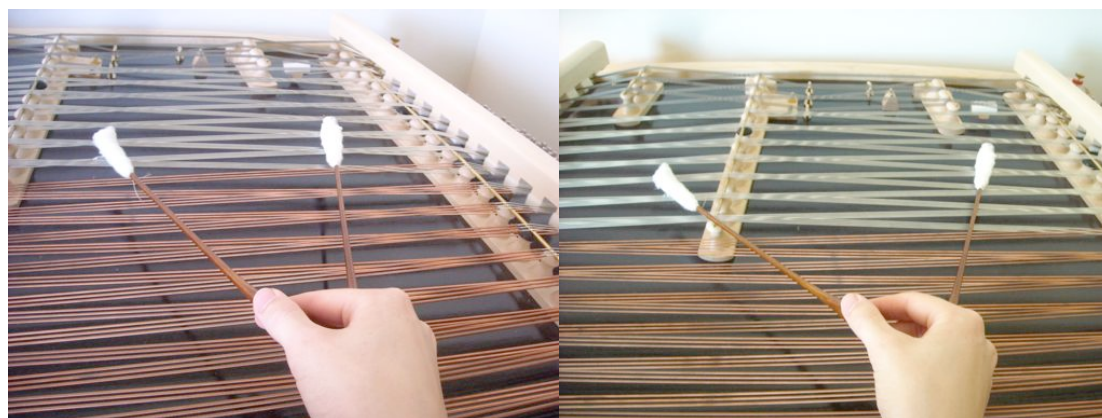
The above photos show the two possibilities of creating longitudinal distance between the mallets, turning the wrist towards the body moving the outside mallet higher or turning the wrist away from the body moving the inside mallet higher. The

result is the same (two different notes played), however, if different mallets are used in the hand they will sound different.

The following table gives examples of the reach possible to play two notes in one hand using two cimbalom mallets. The figures will be very similar if mallets of the same length are used.

Technique	Stretch (strings)	
	Comfortable	Uncomfortable/Awkward
Outside mallet higher	2-7	8-17
Inside mallet higher	2-4	5-6

It is also possible to play notes in a latitudinal plane with minimal wrist and elbow movement. This is particularly effective in the upper half of the instrument due to the bridges.



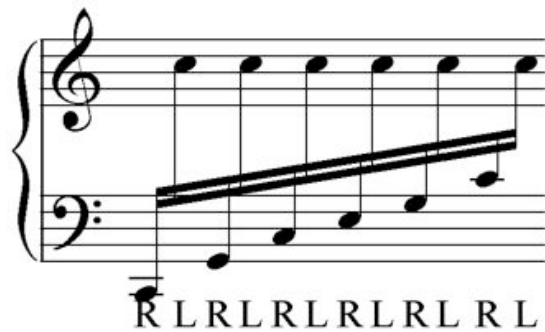
*Playing notes closely spaced in the latitudinal plane.*

One possibility of using two mallets in one hand is the option of having different mallet types to create different sounds, highlight a particular voice, or create a certain effect. For instance it would be possible to have a softer mallet to play the bass notes and a harder mallet to bring out the melody. With careful consideration of the physical aspects of playing it would be possible to have four different mallets in the hands.

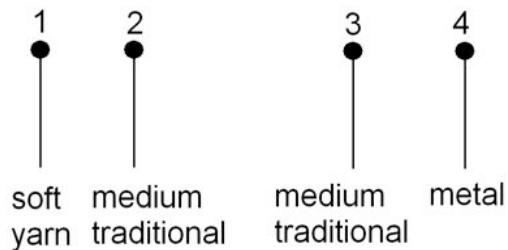
## 2.7. STICKING

The notation of which hand is to play each note (commonly referred to as *sticking*) is best left to the performer's personal preference and expertise, as it requires an intimate knowledge of the note layout. The only instance in which this would be helpful is when the hands are using different (mismatched) mallets, though it may be clearer to notate the different mallets through the use of different note heads.

To notate sticking between the hands the abbreviations L for left and R for right are common in English. In Hungarian B for *balra* (left) and J for *jobbra* (right) are used. It is also common to see the numbers 1 for left and 2 for right, which could be extended to 1,2,3 and 4 when four mallets are used. To be clear about the abbreviations used for notating sticking, a diagram at the beginning of the piece is recommended.



*Sticking notations.*



*An example of a sticking diagram.*

### 3. PLAYING TECHNIQUES

The following section gives examples of a large number of techniques possible on the cimbalom. Some are more common than others and for this reason it is best to clearly notate the techniques through a text indication, a note head, or both. If different note heads or unconventional terms are used, please provide the performer with an explanatory note at the start of the piece.

#### 3.1. PEDALLING AND DAMPENING

##### 3.1.1 Pedalling

The cimbalom has one pedal which when depressed lifts the two damper bars that run along either side of the strings and allows the strings to resonate freely. The pedal is usually depressed before the note is struck and this allows for sympathetic resonance in other strings when a note is struck.

It can be depressed incrementally to produce varying degrees of resonance, such as  $\frac{1}{2}$  pedal or a tapered depression/release. Pedalling indications are not always notated and can be left to the performer to interpret.



Standard pedalling notation.<sup>6</sup>



Standard pedalling notation.<sup>7</sup>



Re-pedal notation.<sup>8</sup>



Half pedal notation.<sup>9</sup>



Pedal with a gradual release.<sup>10</sup>



Gradual depression of the pedal.<sup>11</sup>

<sup>6</sup> Gerencser, Ferenc, & Szeverenyi, Ilona. (1988). *Cimbalomiskola (cimbalom tutor)*.

<sup>7</sup> Kurtág, György. (1976). *Szálkák, op.6/c*.

<sup>8</sup> Ibid.

<sup>9</sup> Ibid.

<sup>10</sup> Ibid.

<sup>11</sup> An extrapolation of the gradual release notation used by Kurtág.

The pedal can also be used to create the effect of a sforzando attack with a sustained note at a lesser dynamic. To achieve this, the note is struck and then pedalled quickly after. The damper pads absorb most of the vibration and the remainder is left to ring after the pedal is depressed. This could be notated as follows.



### 3.1.2. Upper Dampers

The two damper bars are unable to contact all the upper strings, due to the multiple bridges, and there are often smaller damper pads placed beneath these upper strings that each dampen a single note. As the decay time of the upper strings is short relative to the lower strings, the extra upper dampers are not essential and thus not all concert models will have a full set of upper dampers.

If a cimbalom has no or not a full set of upper dampers, it is possible to create the effect of simultaneous dampened and ringing notes, however it is best to consult with the performer directly to assess the particulars of their cimbalom before writing for this technique.

The concert cimbaloms made by Pavel Všíanský have fourteen strings without dampers.



*The fourteen non-dampened notes on a Všíanský light cimbalom.*

### 3.1.3. Non-Pedal Dampening

It is also possible to dampen individual notes when the pedal is depressed, with the hand or the head of a soft mallet (as on a vibraphone); this technique will stop the strings of that note ringing but will not stop all sound as other strings will resonate sympathetically. This could also be used for effect if the note is dampened by the hand as it is played.



*Mallet/hand dampening after notes are played.*



*Mallet dampening as the next note is played.*

#### 3.1.4. Dead Strokes

A dead stroke is played by maintaining downward pressure after a note is struck and not allowing the mallet head to rebound, which causes the note to be dampened as it is played. The sound is similar to a note played without the pedal and can also be used whilst the pedal is depressed. If played whilst the pedal is depressed there will be sympathetic resonance in other strings and the resultant note sounds 'choked'.

This effect is also very interesting, creating a complex sound when played with the hands and a depressed pedal, as it produces a soft attack sound with sympathetic resonance, a slight bending of the pitch, and harmonic overtones.



*Dead stroke notation.*

### 3.2. ROLLED NOTES AND TRILLS

#### 3.2.1. Standard Rolls

In addition to using the pedal to sustain a note, it is common to strike a single note repeatedly with alternating strokes (this is commonly referred to by percussionists as a single stroke roll). It is also common to rapidly alternate between two notes.

Rolls can be notated in a number of ways.



*Examples of roll notation for single and double notes.*

#### 3.2.2. Rolled Notes with a Supporting Figure

A common figuration for the cimbalom is the effect of a rolled note with another musical figure, such as an arpeggio, occurring simultaneously, by having the hands alternate between the sustained note and the figure. In this instance the sustained note can be played as a single note that alternates with the figure or multiple notes (see examples). The single or double note is the most effective if the desired alternation is rapid.



*C major arpeggio with a sustained C5 played as a single note.*



*C major arpeggio with a sustained C5 played as double notes.*

If the supporting figure were sparser than the previous examples it would be best to notate as follows.



*C major arpeggio with a rolled C5 above.*

In this instance, both hands will roll on C5 and one hand will play the note of the supporting figure in place of striking C5 and then immediately return to C5.

### 3.2.3. Trilled notes

Trills can also be written for the cimbalom and these are notated in the standard manner (with cautionary accidentals as required).

### 3.2.4. Trilled notes with a Supporting Figure

The concept of a rolled note with a supporting figure can be extended to two trilled notes with a supporting figure.



*C major arpeggio with a trilled C5 and D5 above.*

In this instance the two hands will roll between C5 and D5 and one mallet will move to play the note of the supporting figure and then return to the trilled notes.

### 3.2.5. Rolls Using the Hands

It is possible to roll notes between the hands and also to roll two notes in one hand by using a rapid alternation between the thumb and fingers of one hand (commonly referred to as a one-handed roll). This can be used by both hands to play up to four note chords. As always when writing for hands, it is important to keep in mind the distance one hand can comfortably stretch if it is to play two notes. The one-handed roll is most effect for notes three to five strings apart.



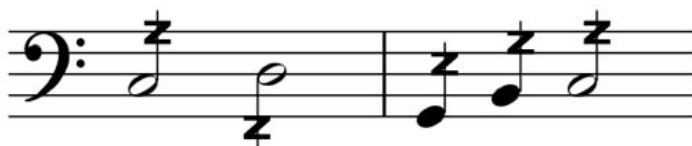


*Example of a possible rolled passage using the hands.*

In the above example, the note allocation for each hand is shown through stems pointing upwards (in this instance for the right hand) and downwards (in this instance for the left hand).

### 3.2.6. Buzz Roll

It is possible to control the rebound of some mallets (soft rubber mallets work best) to create a series of quick notes. This technique can be applied between the hands to create a closed/buzz roll as used on a snare drum. Please note this is not possible with traditional mallets.



*Notation of a buzz-rolled note.*

### 3.2.7. Yangqin Bounce

The flexible nature of the bamboo shaft of the Chinese yangqin mallet means it can be quickly flicked, causing the head of the mallet to oscillate up and down numerous times before coming back to the standard position. This can be applied to create a series of quick notes (approximately four or five notes). This technique works best on a single note but is possible to use whilst moving between strings. Whilst it is possible to use this technique in both hands, it is not possible to have the hands alternate this bounce technique to create the impression of a continuous roll due to the time needed to reset for the technique.



*Yangqin buzz used as a grace note figure.*

### 3.3 CHORDS AND ARPEGGIOS

#### 3.3.1. Chords Played as Arpeggios

One of the most common techniques used on the cimbalom is the arpeggiation of chords. The following two examples show how the same material can be notated. When chords are arpeggiated, it is assumed the arpeggio will be played before the beat so that the written top note (or bottom note for a downwards arpeggio) is played in the beat.



*Chords notated as block chords with an arpeggiation indication.*



*Chords notated as a written out grace note arpeggio.*

#### 3.3.2. Chords Played as Pairs of Notes

A grace note chord can also be broken into pairs of notes and this is notated as follows.



*Grace note chord using pairs of notes.*

### 3.4. STANDARD AND EXTENDED MALLET TECHNIQUES

#### 3.4.1. Using Both Ends of the Mallet

Using both ends of a mallet is an effective way to create the sound of two different mallets without having to change mallets entirely. Turning the mallet in the hand takes approximately one to two seconds. By turning only mallet, a nice contrast is established between the mallets and this can be utilised to give distinction to the individual hands.

Notate as 'swap to butt/head' or simply 'head' or 'butt'.

In the following example, the melodic material is written in such a way where it is possible for the left hand to play the treble material and the right the bass. In the first example the text indication is given to swap to the butt of the mallet (left hand only). In the interest of clarity it is recommended that this be accompanied with a change of note head (as in the second example). This note head would be explained at the start of the piece for clarity.



*Text indication given.*



*Text indication with a change of note head.*

#### 3.4.2. Playing Two Notes with One Mallet

The strings on the cimbalom are strung from high to low from the chessman bridge to the fine-tuning bridge respectively. The alternating fashion in which they are strung (starting high on the left, then high on the right, then left etc.) means there is a point at which the neighbouring strings will be at the same height. It is thus possible to play both notes with one mallet by playing at this exact spot.

There are 43 possible double note combinations on the cimbalom. All the doubles in the copper-wound section are semitones and it is not until the steel strings are reached that larger intervals are possible. The double notes lie in the centre of the copper-wound strings and then right-of-centre in the lower section of the steel strings and on both sides in the upper section of the steel strings.

To notate a double note, write 'with one mallet' above the notes to be played together.



*One mallet in position to play two notes (G3 and C4).*



*The 43 possible double notes. Please be aware that accidentals apply throughout the bar.*

### 3.4.3. 'Cimbshot'

The term cimbshot (coined by the author) is similar to a rimshot on a snare drum or marimshot on a marimba. The essence of the technique is playing a note with the head of the mallet and hitting the shaft of the mallet simultaneously for an extra percussive effect. This technique may not be possible at all on some cimbaloms due to the frame; if the outer frame is not lower than the string height it is not possible to drop the hand low enough to play a cimbshot. On a Všianský light concert cimbalom, this is possible within the first octave of the copper-wound strings.

Notate as 'cimbshot' or with a different note head. It is also best to explain the term cimbshot at the start of the score, as it is not a common cymbalom term.

#### 3.4.4. Articulation, Ghosted Notes, and the Potential for Rhythmic Interest

A great strength (or a great problem for the inexperienced player) of the cymbalom is the ability to control the articulation of each stroke. The articulation of the stroke can be changed through playing position, mallet choice, the attack velocity, and the use of pedal.

One possible effect is to play notes without a clear attack and the resultant effect is a ghosted note. A ghosted note is a term commonly found in drum-kit notation and it refers to a note that is played lightly and without clear articulation; it has the effect of a rhythmic support. The use of ghosted notes combined with a fully depressed pedal has the effect of a wash of sound.

Ghosted notes are often notated as bracketed note heads, though any notation can be selected as long as it is explained at the start of the score.

The control that is possible with mallets means the cymbalom can play rhythmic patterns in a way that is rhythmically satisfying. For example, a player can play semiquavers on one note and through the control of articulation and accents, create an interesting rhythm, an effect that is not possible on a piano due to the mechanism.

### 3.5. EXTENDED PLAYING TECHNIQUES

#### 3.5.1. Timbre and Playing Near the Bridges

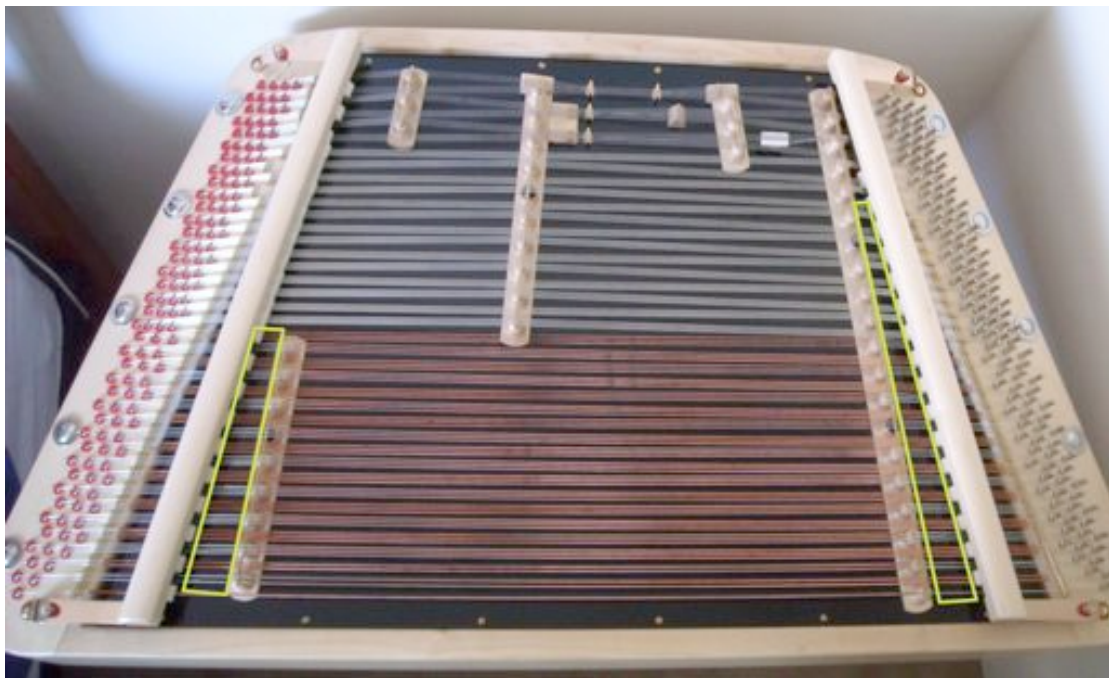
The timbre of the note is affected by a number of factors: mallet choice, playing position, articulation, and use of pedal.

Harder mallets will produce a bright and sometimes harsh tone full of overtones whereas a softer mallet will produce a warmer tone with more of the fundamental pitch.

The playing position on the string affects the timbre in the following way: playing on or very near to the bridge will create a bright sound (marked *near the bridge* or *ponticello*) and an increasingly darker sound the further from the bridge the string is played. If no marking is present, performers will interpret the material to determine the playing position, with a solid tone neither overly bright nor dark as a default.

#### 3.5.2. Un-tuned Side of the Strings

The portion of the string on the other side of the chessman bridge is the un-tuned section. The layout of the instrument and the relatively similar lengths of the un-tuned part of the strings means the un-tuned side of most notes is quite in tune with itself. The exact notes that are in the un-tuned portion will differ between instruments but as a general sound, they are high pitched, non-dampened notes.



*The un-tuned side of the strings.*

For the author's Všianský light concert cimbalom, the approximate pitches of the un-tuned side of the strings are as follows.



*Notes on the un-tuned side of the right hand bridge (the pitch drops from B6 to F6 at the steel string G3).*



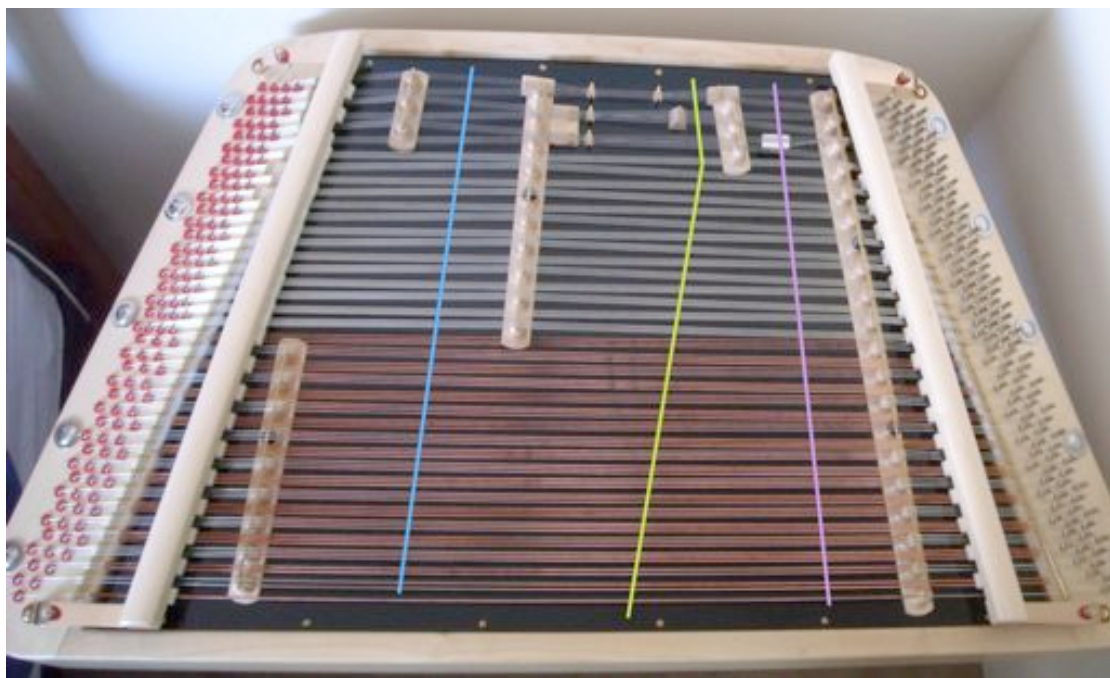
*Notes on the un-tuned side of the left hand bridge.*

To notate a note to be played on the un-tuned side write the desired pitch with a text indication *on the un-tuned side* or create a note head to represent this.

### 3.5.3. Glissandi

Glissandi are possible in a number of ways on the cimbalom though one way that is not possible is the standard chromatic glissando. A glissando can easily be played with the hand (flesh or nail) or with the butt of a mallet.

The glissandi available on the cimbalom are many due to the layout of the notes. The following image shows a few of the possible paths that could be taken through the layout.



*The blue glissando sounds most of the left-most strings, the green glissando sounds all of the central strings, most of the right-most steel strings and all of the copper-wound strings, and the purple glissando sounds all the rightmost strings.*

Glissandi can also be played on the un-tuned side of the strings.

To notate a specific glissando please refer to the note layout diagram in 1.3. PITCH LAYOUT and write out the notes to be played as grace notes.



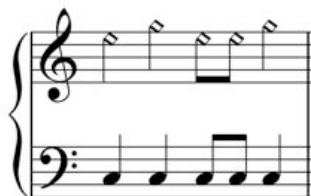
*Glissando with the notes to be played written as grace notes.*

The above method can be time consuming to score and difficult to read so if the exact notes of the glissando are not important, write a starting pitch and indicate a glissando up or down. A text indication such as the following is also an option:  
*Glissando from very low to mid-range with flesh playing as many notes as possible.*

#### 3.5.4. Harmonics

It is possible to play harmonics on the strings by placing a finger from one hand on the string as it is played by the other hand. Whilst possible on all strings, harmonics sound strongest on the copper-wound strings and the lower half of the steel strings. The first seven harmonics (up to three octaves above the fundamental) sound strongly in the copper-wound strings and this number decreases to four or five strong harmonics for the lower steel strings.

The conventions for notating harmonics vary between instruments. It is recommended that for cimbalom, the note to be played is written with the harmonic sounded as a diamond-headed note above the pitch.



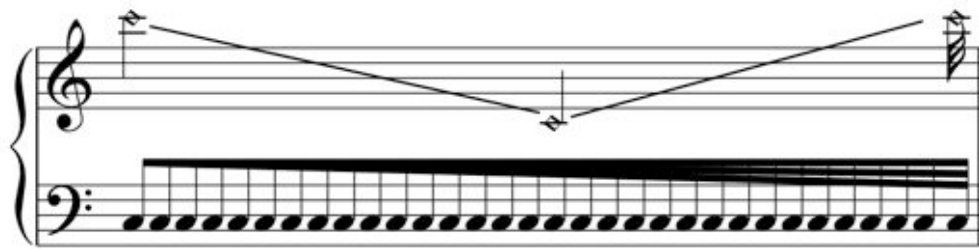
*Notation of harmonics.*





*Hand and mallet ready to play a harmonic.*

An interesting effect is a 'sliding harmonic', achieved by placing a finger on the string as if playing a harmonic and moving the finger left or right as the string is repeatedly struck. The resulting sound is of a harmonic of the fundamental moving upwards or downwards depending on the motion of the finger.



*Possible notation for a sliding harmonic.*

A similar effect of a rising and falling harmonic can be achieved by sliding a coin along the length of the strings. This can be done fast or slow, and the resultant effect is a rising or falling overtone, full of contact sound as the coin moves along the string, and with little fundamental pitch.

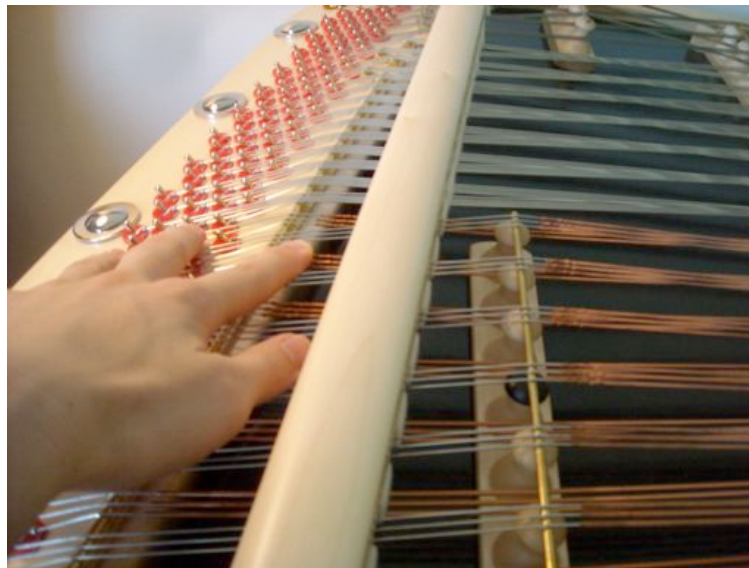
Another possible effect using a harmonic is a combination of a harmonic with the fundamental pitch. This is achieved by stopping some of the strings of one pitch at the harmonic point, and playing the strings with a mallet. Alternatively, the thumb can stop the harmonic of the furthest string, which the first finger plucks, as the middle finger strums the un-stopped strings.

### 3.5.5. Muted Notes

By placing the finger or part of the hand at either the chessman bridge or the fine-tuning bridge (if the pedal is depressed) before the string is struck, the string can be muted. The resultant tone has a reduced attack sound and a distant tone. The string can easily be muted when a mallet is held in the muting hand, however, in the following photos the mallet has been removed for clarity.



*F3 string muted with the first finger at the chessman bridge in readiness to strike the note. The string would be struck close to the finger.*

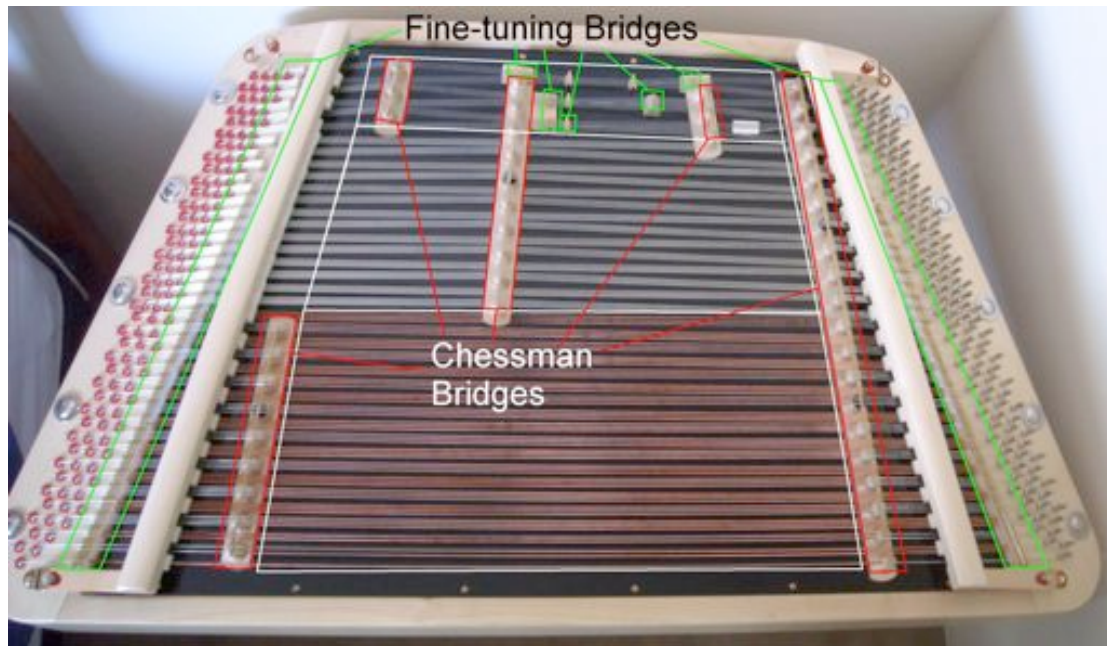


*E3 string muted with the first finger at the fine-tuning bridge in readiness to strike the note. The string would be struck close to the chessman bridge, which for this note is on the far right.*

Every string has two ends at which it can be muted and for the copper-wound strings, it is easy to mute the notes at the chessman bridge or the fine-tuning bridge as they are close together. The pedal must be depressed to mute at the fine-tuning

bridge as the damper pads lie before this bridge when not depressed. This is very efficient in terms of movement and coordination if one hand is used to play the notes and the other to mute them.

To mute the steel strings it is still possible to mute at the chessman bridge but not always at the fine-tuning bridge as not all strings pass over a fine-tuning bridge. This is not an issue if both hands are available to mute the strings.



*The location of the chessman bridges and the fine-tuning bridges.*

It is also possible to mute a series of notes in a row by placing multiple fingers at the required point on neighbouring strings, or the side of the hand/forearm along the chessman bridges, thus muting as many notes as can be reached.

A suggested notation for muted notes is a plus sign over the note head. If this method is used, provide a text indication the first time it is used or provide a description at the start of the piece.



*Notation of muted notes.*

### 3.5.6. Playing the Body of the Cimbalom

The body of the cimbalom provides a wide variety of rich sounds, which can be enhanced through the use of the pedal to allow resonance in the strings.

Whilst all cimbaloms will have different sounds, as a general guide to the sounds of

the body of the instrument: the solid frame has a low sound, the damper arms a higher sound, the damper support arms have a metallic sound, and the soundboard has a hollow sound.

I have found some of the effective playing positions on the body include on the damper arm with the shaft of the mallet so as to achieve a clicking sound, playing the head of the mallet on the rods that pass over the chessman bridges, and using the butt of the cimbalom mallet gently on the soundboard.

Notate as a 'play on the frame' or 'play on the damper arm' and so on.

## 4. PREPARATIONS

There are a number of ways of preparing the cimbalom, and as with the possibilities for mallet choice, the variety of materials that can be used to prepare the cimbalom are virtually limitless. Some of the techniques that I have found to be effective are listed below.

### 4.1. PAPER

Strips of paper can be woven through a set of strings in a tight or loose manner. If wrapped tightly, the result is a dampening of the note, and if wrapped loosely, a buzz is created.



*Paper wrapped between the strings.*

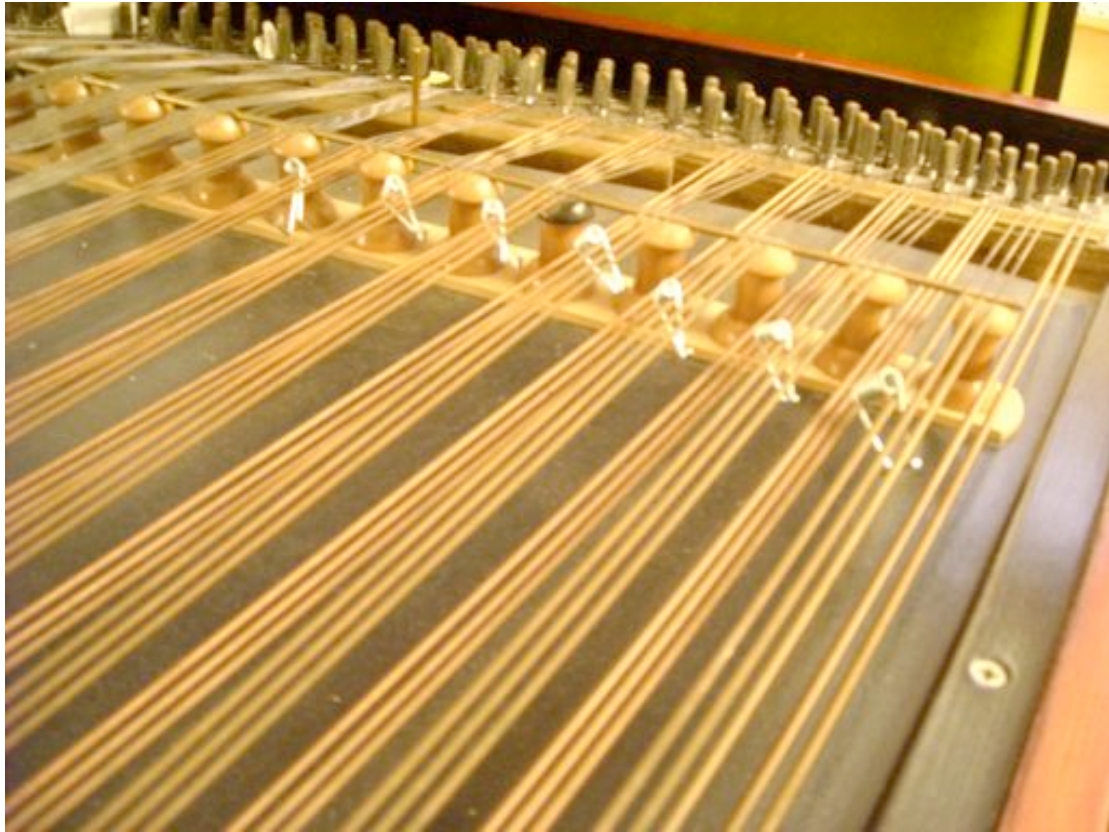
Paper/thin cardboard can also be placed under the damper felts to create an interesting combination of sounds. If placed in this position, when the damper pedal is not depressed, the evidence of the paper is not apparent, as the notes sound as per normal. When the pedal is fully depressed, I have found that the paper vibrates little on top of the strings and the resultant sound is similar to a standard undampened note. However, when the pedal is only depressed gradually, the paper is sandwiched loosely between the strings and the damper felts, and buzzes between the two when the note is struck. The pressure placed upon the pedal determines the intensity of the buzz.

#### 4.2. WOODEN CLOTHES PEGS

Both the two wooden segments and the spring are useful preparation tools for the cimbalom. The wooden segments can be placed between the strings so as to dampen the strings. The wooden section can be manoeuvred so as to dampen the ring or change the timbre to varying degrees.



The metal spring from the middle of the peg can be woven around the strings so that it is resting upon the string. This creates a particularly effective buzz when the note is struck as the spring bounces up and down upon the strings, being held from falling off by the fact that it encircles the strings.



#### **4.3. BOW HAIR**

Loose bow hairs can be used to bow the strings and by looping the hairs around the strings and pulling in one direction, the notes sound in the manner of a bowed string instrument. This technique takes time to prepare and requires both hands to articulate.

## 5. REFERENCES

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**#2 Score for *Duet for Cimbalom and Stairwell* by Mace Francis**

### #3 Score for *things are not always as they seem* by Johannes Luebbers

#### #4 Score for *Mutant Telescope* by Christopher de Groot

**#5 Score for *Erre L'Otmito* by Elizabeth Bonny**

#6 Score for *The Isolation of Zoltán Szőlősi* by David Pye

## #7 Performance Listing

I have been involved in approximately eighty performances since the beginning of 2012, across a range of instruments and musical genres. The following list details the significant cimbalom performances over this period.

### 2012

31<sup>st</sup> March and 21<sup>st</sup> April: I was interviewed by WAAPA Screen Academy student Lorant Leel-Ossy at WAAPA, for a short documentary focussing on my cimbalom practice and my research project. Also included recorded performances of classical repertoire and improvisations. This was completed later in the year.

18<sup>th</sup> and 19<sup>th</sup> April: Performances of the *Háry János Suite* by Zoltán Kodály with the Faith Court Orchestra at WAAPA.

19<sup>th</sup> May: Music Amica concert in Applecross, Western Australia. I performed a combination of traditional repertoire, classical arrangements, and an improvisation.

22<sup>nd</sup>, 24<sup>th</sup>, and 25<sup>th</sup> May: WAAPA percussion ensemble, Defying Gravity, lunchtime and evening concerts at WAAPA with myself as the special guest artist. Featured four of my arrangements for cimbalom and percussion ensemble.

12<sup>th</sup> July: Interviewed by Szilvia Malik-Game for the SBS Hungarian Radio Station. Broadcast Saturday 14<sup>th</sup> July. I performed my arrangement of a classical work and spoke about my cimbalom practice in Australia.

12<sup>th</sup> August: Open rehearsal/performance of one of my cimbalom and percussion ensemble arrangements with member of Defying Gravity and prospective students as part of the WAAPA Open Day.

18<sup>th</sup>, 20<sup>th</sup>-22<sup>nd</sup> September: Defying Gravity lunchtime and evening concerts that included a performance of my arrangement for cimbalom and percussion ensemble.

19<sup>th</sup> September: Premier performance with Mace Francis of *Duet for Cimbalom and Stairwell* for the Research Week Colloquium Day at WAAPA.

23<sup>rd</sup> September: The first WA Day of Percussion, organised by the Australian Chapter of the Percussive Arts Society. I gave a presentation about the cimbalom, and performed my arrangement for cimbalom and percussion ensemble.

14<sup>th</sup> October: Guest solo cimbalom artist at the Musica Viva High Tea at His Majesty's Theatre, Perth. I performed a combination of classical repertoire, my arrangements, and improvisations.

15<sup>th</sup> October: Premier performance of Christopher de Groot's *Mutant Telescope* at the Sound Spectrum Festival, ECU Mt Lawley.

19<sup>th</sup> October: Premier performance of Johannes Luebbers' *things are not always as they seem* at the Sound Spectrum Festival, WAAPA.

21<sup>st</sup> October: Solo cimbalom performance at the Hungarian Club of Perth at the Hungarian Hall, for the anniversary of the Hungarian Revolution. I performed a combination of classical repertoire, and my arrangements of folk repertoire.

21<sup>st</sup> November: Second performance of Mace Francis' *Duet for Cimbalom and Stairwell*.

## **2013**

15<sup>th</sup> February: Performance at the closing ceremony of the InSPiRE inter-university postgraduate research summer school. I performed a combination of classical music, my arrangements, and improvisations.

5<sup>th</sup> March: Premier performances of Elizabeth Bonny's *Erre L'Otmito* and David Pye's *The Isolation of Zoltaán Szőlősi*, as well my arrangements of Russian and

Romanian folk music performed with double bass and clarinet, and one of my cimbalom and percussion ensemble arrangements.

17<sup>th</sup> March: Performance at the Perth Hungarian Community House of classical Hungarian music, with an ensemble of cimbalom, 'cello, violin, piano, accordion, and voice.

6<sup>th</sup> April: First rehearsal of my work for cimbalom and string orchestra, which was commissioned by the WA Youth Orchestra.



**#8 USB drive containing the following Chapters:**

**Chapter 1: The Manual video component**

**Chapter 2: Live performance of *Duet for Cymbalom and Stairwell* by  
Mace Francis**

**Chapter 3: Studio performance of *things are not always as they seem*  
by Johannes Luebbers**

**Chapter 4: Studio performance of *Mutant Telescope* by Christopher de  
Groot**

**Chapter 5: Studio performance of *Erre L'Otmito* by Elizabeth Bonny**

**Chapter 6: Studio performance of *The Isolation of Zoltán Szölősi* by  
David Pye**

**Chapter 7: Digital audio backing track for *The Isolation of Zoltán Szölősi*  
by David Pye**