

Exploring the Diversity of Contemporary Western Classical Percussion Repertoire: Preparation Techniques and How They Influence Performance



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Abstract

Exploring the Diversity of Contemporary Western Classical Percussion

Repertoire: Preparation Techniques and How They Influence Performance

Percussion performance has developed as a valid genre in Western Art Music only in the last eighty years. Over this period, both composers and performers alike have made the genre of percussion performance one of the areas to which contemporary composers have been attracted resulting in its increased audience appeal.

My research topic looks specifically at the range of techniques and decisions percussionists make in preparing for different performance situations and styles. These decisions include what grip to use, mallet selection, working alongside composers and their requests, and working with other instrumentalists such as chamber orchestras.

The question I am asking is how these preparation choices, through a pre-performance analysis of the work, can help to decide how the performer achieves the composer's desired effects.

To approach this question, my performance-based research follows a process of preparing four different performances over a two-year span. Each one of these performances features music from different stylistic contexts, ranging from solo virtuosic marimba works, chamber works, and concertos written for marimba and orchestra. In basing my research on the study of these different performance situations, I will document the decisions that had to occur in an analysis of the work and how these decisions succeeded in the performance.

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Glossary of Terms

Accent	Stress placed on certain notes in a piece of music, indicated by a symbol printed over the note concerned. Emphasis or prominence given to a note or chord, as by an increase in volume or extended duration.
Cadenza	An extended virtuosic section for the soloist usually towards the end of a movement of a concerto.
Canon	A composition or passage in which a melody is imitated by one or more voices at fixed intervals of pitch and time.
Chorale Mallet	A loosely wrapped mallet made of a thick yarn to create a warm and vocal like sound.
Djinn	An invisible spirit mentioned in the Koran that can have supernatural influence over mankind.
Gamelan	A traditional Indonesian ensemble typically including many tuned percussion instruments including bamboo xylophones and wooden or bronze chimes and gongs.
Interval	The difference, usually expressed in the number of tones and semitones, between two pitches.
Key (bar)	The wooden section of a marimba or xylophone that is struck with a mallet.
Michael Balter Mallets	A mallet made from a green chord that is designed to be used on a vibraphone.
Motif	A short rhythmic or melodic passage that is repeated or evoked in various parts of a composition.
Multi-Tone Mallet	A mallet that can produce multiple tones.
Ostinato	A short melody or pattern that is constantly repeated, usually in the same part at the same pitch.

Pedalling	Processes of pushing down the pedal on a vibraphone to create or minimize resonance. The pedal controls a mute that is attached to all the keys.
Polyrhythm	The combination or an instance of simultaneously contrasting rhythms.
Recapitulation	Restatement or reworking of the exposition in the tonic, constituting the third and final section of the sonata form.
Recital	A performance of a program of music.
Rubato	Rhythmic flexibility within a phrase or measure; a relaxation of strict time.
Sticking	The process of deciding what order the mallets strikes the instrument.
Subdivisions	An administrative division of some larger or more complex rhythm.
Syncopation	A shift of accent in a passage or composition that occurs when a normally weak beat is stressed.
Tachyon	A hypothetical subatomic particle that always travels faster than the speed of light.
Triplet	A group of three notes having the time value of two notes of the same kind.
VI 1 and VI 2	An abbreviation of Violin 1 and Violin 2.
Variation	A form that is an altered version of a given theme, by melodic ornamentation and by changes in harmony, rhythm or key.
Wind Orchestra	A group of musicians playing brass and woodwind and percussion instruments.

The Marimba

The rudimentary concept of the marimba is a series of wooden bars on top of a resonating chamber. With this concept, the marimba could be considered to be one of the oldest instruments in existence; however, much has changed since the first marimba was performed on. The early marimbas from Guatemala would not have been chromatic marimbas; they would have been more akin to the African *balafon*. The *balafon* as observed in Figure 1, is built from different sized wood keys over the top of gourds or other resonating shapes, making them the first diatonic marimbas. The first reported performances of a chromatic marimba occurred in southern Mexico in 1894, now known as *Antigua* in Guatemala.



Figure 1: An African balafon (Source: Cultural Infusion, 2011)



Figure 2: A Guatemalan playing a chromatic marimba similar to the first type (Source: Robert Garfias, n.d.)

With the instrument undergoing numerous periods of development, it was not until the 20th century that the marimba became a prominent instrument in concert halls. Vida Chenoweth is credited with performing the first major polyphonic marimba work in 1956 with this performance drawing public attention to the new instrument. The modern marimba has undergone significant developments since 1956.

The major developments in the marimba design occurred with a collaboration between Yamaha and Japanese marimbist Keiko Abe. In 1963 Abe was approached by Yamaha to assist in designing a marimba that would hold its own in any concert hall. By now Abe was well known for her views and direction on how marimbas should sound and be played. Up until this point, marimbas like Chenoweth's were only built with four octave ranges, whereas Abe wanted Yamaha to extend the range to five octaves. The first marimba designed by Yamaha is what modern day concert marimbas are based on, with variations of the design only changing between different manufacturers.



Figure 3: Vida Chenoweth (Source: Percussive Arts Society, n.d.)



Figure 4: Keiko Abe performing on the first 5-octave marimba (Source: Yamaha, 2012)

Much has changed since the early marimbas were performed on. The modern marimba design incorporates many technical advancements and choice of materials. An example is the use of kiln-dried Honduras Rosewood for the keys, a much sought-after wood. The Janka hardness test is used to test the resistance of different types of wood. By pressing a steel ball onto wood, it is calculated how long it takes for an indentation to occur, giving a rating to the resistance of the wood. On this scale, Honduras Rosewood scored high with a strong resistance to indentation,

meaning that after multiple strikes with mallets both hard and soft, there would be no indentation on the keys. With this level of technology, it is possible to build marimbas that can sustain the demands of virtuosic music along with a high level of endurance.

Analogous to the development of the keys, the process of developing resonators has progressed from the original gauds used by the Africans on the *balafon*. The common material used in the making of resonators is high-grade brass, similar to that used by Selmer in the production of their saxophones¹. By using brass, the resonance of warm Honduras rosewood is accompanied by a bright and powerful sound envelope. Inside most marimbas, the resonators have pre-set tuning locks that vary according to their placement. The higher resonators on the marimba have tuning locks towards the top of the pipe, whereas the lower registers have the locks closer to the bottom of the resonator. In Abe's first Yamaha marimba, it was possible to change the tuning locks on the bottom six notes, resulting in the development and manipulation of the sound envelope. This means that at the bottom of the marimba it is possible to have a characteristic that is different to the upper registers. By contrast a dark and warm lower register with abundant amounts of resonance and overtones are set against the bright top register.

With these developments occurring, new manufacturers such as Malletech have taken this design and developed tuneable resonators, with most of their instruments now having each tuneable resonator providing an infinite array of responses.

¹ Selmer is renowned for making some of the finest saxophones by a manufacturer. These instruments, like the Selmer Mark V1, have their base made of the finest brass and coated with a quality lacquer. A similar process occurs with Malletech resonators because they treat similar brass with a lacquer, which helps create a bright tone. "Selmer Mk V1 review", http://www.shwoodwind.co.uk/Reviews/Saxes/Alto/selmer_mkvi_alto.htm, accessed 05/11/2012



Figure 5: The bottom octave of a Mallettech marimba that shows the black tuning locks plus inside the resonators (Source: Mallettech Inc , 2010)

The advantages of having tuneable resonators means the performer can:

- Adjust resonance and volume
- Increase volume and projection
- Improve the focus of tone
- Emphasise the fundamental pitch
- Compensate for temperature and humidity changes
- Personalise the sound of the marimba

In all the recordings forming this research, I was fortunate to perform the repertoire in a professional concert hall with acoustics designed for live performance. Throughout the chapters, I discuss more about the mallets that I use to strike the keys rather than the tuning of the resonators because the room had desirable acoustics.

In this research, I have performed all the music on my Imperial Grand five-octave marimba made by Mallettech. This instrument built in New Jersey (USA) encompasses all the developments I have discussed. In understanding where the marimba has come from, it is possible to see how science and new materials have helped turn the original idea of the marimba into a valid instrument to perform art music on. With these developments the marimba is now an accepted and versatile instrument for composers to write for and percussionists to perform on. The specifications below are for the Mallettech Imperial Grand marimba that I am currently performing on.

The Malletech Imperial Grand Five – Octave Marimba Details



Figure 6: My Imperial Grand marimba setup to perform *One Study One Summary* by John Psathas

Keyboard: Hand selected Honduran rosewood, air-dried for a minimum of five years and kiln-dried

Resonators: Brass

Range: Five octaves, 61 notes, C-C

Pitch: A=442

Length: 2.7m

Height: 0.9m

Weight: 170kg

Chapter 1 – Introduction

Percussion instruments could be considered the oldest instruments in the world; however, the genre of percussion repertoire inside western art music is one of the most recent areas to be explored. Between 1960 and 1980, composers from around the world began composing repertoire for different possibilities of percussion repertoire such as solo snare, multi-percussion, solo marimba and timpani works. An example from early works was written by one of America's most influential composers, Elliot Carter. His work, *Eight Pieces for Four Timpani*, is now considered to be one of the most influential works in the repertoire of the timpani as it developed the way in which it was performed on in a solo context². When Carter wrote these works, western art percussion repertoire was in its infancy. Through these works, Carter explored new concepts that inspired other composers to write music for percussion instruments never considered in a solo context.

In this new medium, percussionists have gone on to develop advanced techniques to assist them playing virtuosic music. An example from the 19th century shows percussionists performing on xylophones with two mallets, where today they can perform on xylophones as well as marimbas with four mallets as well as two, using new grips developed after the 1950s. This development provides an incentive for

² The timpani are commonly seen as an orchestral instrument used to highlight musical phrases in classical music. "Elliott Carter's solo timpani works of the 1960s represent the benchmark upon whose quality all subsequent compositions of this genre have been measured". Through techniques he had pioneered, like metric modulation and sympathetic resonance, Elliot brought a percussion instrument from the back of the orchestra to the front. "Stuart Marrs on Elliot Carter DVD", <http://www.vicfirth.com/education/timpani/marrs.php>, accessed 12/01/2013

attracting composers to write for percussion because they can explore innovative concepts and ideas; unlike other instruments, percussion repertoire has no historical practice. In this emerging area of composition, many of the approaches to technique employed by percussionists are still in their formative phase.

My research explores the preparation that percussionists go through in preparing virtuosic music under different performance circumstances. Each chapter of this exegesis explores a different virtuosic work. The format of Chapters 3-5 is divided into two parts. The first outlines my performers analysis of the work, which incorporates the score. It will also identify the anticipated challenges in the preparation phase. Examples of the decisions made in this preparation cover considerations such as mallet selection, tempo, phrasing, sticking patterns, approaches to accented patterns and timbrel roles. This format varies slightly when the chapter investigates the music that involves other musicians such as *Djinn*. In these chapters where there is collaboration between musicians, I discuss the relationship of all parties involved. I look at the differences that a performer considers when performing with an orchestra, using two different concertos as examples. The challenges of linking the role of the ensemble to that of the role of the marimba has idiosyncratic hurdles that needs to be addressed.

This exegesis takes the reader on a journey, which is supported by video and audio examples. The discussion in the second half of the chapter is complemented by video examples from the performances. With the inclusion of a DVD, the reader is advised to watch each performance in its entirety before reading individual chapters.

By watching the full performance, the reader is able to appreciate the work in its entirety before reading my systematic analysis of the performance.

Linking the marimba to the concept of western art percussion music as being a new genre, it is important to note that there is even less documentation to support the way percussionists prepare their music than for the genre itself. Where this exegesis includes questions and answers that cover other instrumental practice, this document addresses how divergent these problems are for the marimba. Where a pianist has similar approaches to learning a work with a method that has been defined by centuries of players and teachers, this new genre is still essentially in its infancy. In the majority of percussion repertoire, composers rarely indicate what mallets are to be used. This responsibility falls mostly on the performer to achieve what he aspires to concerning the composer's intentions.

My research encompasses a series of four recitals over a two-year period, in that each concert featuring an Australian premiere of a new marimba work. These works provide the basis of my discussion for the exegesis. The pieces are:

- *Djinn* - John Psathas (NZ)
Concerto for Marimba and Chamber Orchestra
- *Happy Tachyons* - John Psathas
Concert Solo for Marimba and Vibraphone and Piano
- *Concerto No.2* - David R. Gillingham (USA)
Concerto for Marimba and Wind Orchestra

In Chapter 6 I make reference to another work, *One Study One Summary* by John Psathas (a solo work for marimba and tape) that makes a valuable contribution to my research area of preparation³.

In the recitals there was additional repertoire that I performed to illustrate the diversity of percussion repertoire. In doing this it provides a balance within each program and shows the diversity available to a modern percussionist covering solo repertoire. This is observed in Appendix 1 with the program notes of each work performed in these concerts.

An inspirational phase of a performer's career is the collaboration with a living composer. This exegesis documents a journey undertaken with New Zealand and internationally acclaimed composer John Psathas; I performed the Australian premiere of three of his works within the context of my research. When I was preparing Psathas's music, I sent him recorded excerpts of my performances and then sought feedback. Throughout the discussion chapters I reference Psathas's comments in supporting my discourse on how a composer, whereby Psathas, gradually allows a performer to take more creative responsibility of his works and how a mutual collaboration develops between the composer and performer.

Percussion research is unique because there are a limited amount of resources and people who have spent time investigating this area. By documenting my preparation

³ Composed in 2005 this work is for marimba and tape. Featuring the unique writings of Psathas, I performed the Australian premiere of this work in June 2011. I will use references from preparing this work to help demonstrate the different approaches I have undertaken in preparing the music of Psathas. "Promethean Editions", <http://www.promethean-editions.com/php/WorkDetail.php?WorkID=9>, accessed 14/07/2012

I can show the process the percussionist embarks upon, including the partnership that develops with a composer. In highlighting my writing with video examples of the final performances, the reader can appreciate what is required to perform some of the most virtuosic music ever written for percussionists. From my research I am able to answer my question on how preparation decisions consolidate the technique needed to achieve the composer's vision and how it influences the performance of a work.

Chapter 2 – Literature Review

2.1 Introduction

There is a limited amount of research in the field of Western Art Classical percussion repertoire since the genre was pioneered in the 1960s. There are multiple reasons as to why after sixty years there is minimal literature and source material created about the genre, predominantly that the style is considered new and developing. With the main instrument in this research being the marimba, an instrument that is only 60 years old, the main literature is confined to the historical development of the instrument. Unlike with other instruments, the first performer who played a western marimba is still alive, making it only two generations of performers since its creation.

With such a new genre it is easy to assume the instrument is still in its development stages. Since the 1960's percussionists have been shaping the art of performing percussion repertoire through the development of techniques, instrument design, approaches to timbre and the creation of mallets. With all these ongoing developments percussionists have neglected to document these processes: most focus on performing and therefore do not view it as an academic process. This research combines the creative process and the rigour of academia to achieve one of the first exegeses of its type, not only in its genre but also in the history of the instrument.

2.2 Current Research

Currently, there is limited research being undertaken in the field of percussion performance and how the performer prepares to find out what techniques are easier and more effective. Where there is a commonality in other researcher's work to my own, I include examples from different types of enquiry, as well as my performance-based methodology, to answer how the preparation techniques influence the varying compositional styles in contemporary percussion repertoire. The answer is through the player's decision-making process required in the technical development in order to fulfil the composer's intentions.

Currently, most percussion research is in small sections with no individual creating and drawing upon in detail the process and decisions percussionists make in preparing their music. In bridging this process through this exegesis, the importance for a development of percussion performance in Australia can be found in my research, illustrated by the meticulous and methodical approach of my project.

2.3 Journals

Journal articles are the most accessible source of percussion research because the body that disseminates this research to the percussion world, Percussive Arts Society (PAS), publishes twice a month with articles covering art development, history and ongoing changes in the percussion fraternity. Most journal articles refer to current views on technique and the approaches of their use in different musical situations.

History

The marimba has undergone major developments since its original design in Central America: the documenting of these changes is important. Robert Gafias journal article *The Marimba of Mexico and Central America* outlines the characteristics of the early marimbas existing in Guatemala and how they feature strongly in the culture of this country. This article provides a great insight into the early marimbas and how they influence the concert marimbas in percussion today⁴. In this article it is talked about how the early designs in both material and keyboard layout helped encourage and develop the modern day marimba. Whereas Gafias writes about the early marimba, Rebecca Kite's article on *Keiko Abe's Quest* explores the collaboration between herself and Yamaha in the creation of the first five-octave marimba⁵. Where both these journal articles explore the history of the marimba from two different centuries, they both link together the major changes between the primitive instrument and the concert equivalent. Michael Williams in his article *A Look at the African Thumb Piano and the Marimba* reinforces this link between the primitive and new concert instrument, between Abe and the early Central American marimbas⁶.

Technique

The Percussive Arts Society has published several articles on the development and evolving approaches to techniques that have occurred throughout the past seventy years. Leigh Howard Stevens is one of the most celebrated percussionists: he developed the Stevens Method, a grip now used universally by percussionists. Michael Burritt's article on an interview with Stevens discusses his approach in

⁴ Gafias, Robert. 1995.

⁵ Kite, Rebecca. 1998.

⁶ Williams, Michael. 2000.

creating a new grip inside a new genre⁷. In a broader overview Sherry Kastner in *The Evolution of Marimba Technique* explores all the techniques and how they have developed and influenced playing methods⁸. This article looks in depth in the development between the Stephens and Burton Grip, which were both developed for different reasons. Kastner talks about the development of how the Burton Grip was originally created for Jazz Vibe performance and progressively moved onto the marimba. She also talks about the development between the Musser (early) grips through to the modern Stephens Grip, which is used commonly in the United States. Where both of these articles are important in showing the difference and variety in techniques, they both approach their arguments without extensive discussion. Burritt, through Stevens, only discusses the use of his own grip, whereas Kastner gives a broad perspective of all grips, but only on a superficial level. The most informative literature relating to technique improvement in producing a quality sound is found in Edward Saidon's paper on *Sound Development with Four Mallet Usages on Vibes*⁹. Unlike the other articles, Saidon explores, in depth, how four mallets can control and expand the different sound possibilities on the vibraphone.

Preparation

This is the field in percussion research that has received the least input from research. Most research into preparation in percussion examines, from a philosophical perspective: what the music is about, and whether it is spiritual or has

⁷ Burritt, Michael. 1992.

⁸ Kastner, Sherry. 1989.

⁹ Saidon, Edward. 2006.

a meaning. In Paul Buyer's article, *Mental Preparation in Percussion*, he writes about the process most percussionists go through in preparing music at a professional level¹⁰. Rebecca Kite discusses one of Buyer's methods in detail in her article, *Choosing Marimba Mallets*¹¹. In this article Kite discusses the importance of selecting mallets and how they play a different role in each piece of music. Similar to Buyer, Cort McLaren could have expanded his discussion on the predicaments percussionists face in preparing their music in his article *Reaching Consensus*¹². Some of these major predicaments were talked about in a weak context, such as the approach percussionists take in memorising their music, the way in which percussionists are taught technique and which grips are suited to each style. At the end of this article he makes the declaration that the Match Grip is the best grip, a statement that is not supported with great strength in the article.

2.4 Books

As similarly found in the journal contributions, there is a limited source of books about research pertaining to percussion performance and development. The books I am using in my research are technique books written by the people who pioneered the various techniques, such as the *Method of Movement* by Leigh Stevens¹³. In *Method and Movement 2nd Ed.*, the author discusses the Stevens Grip and how it can be learned and strengthened through exercises and etudes. Not only does this book work with the Stevens Grip, the exercises can be further adapted to the Burton Grip. Being one of the stable technique and exercise books written, this book can be

¹⁰ Buyer, Paul. 2008.

¹¹ Kite, Rebecca. 2000.

¹² McLaren, Cort. 2008.

¹³ Stevens, Leigh Howard. 1980.

undertaken by any level of performer and will help strengthen the player's technique over a series of different exercises.

While there are minimal books devoted to percussion preparation, there are other musicians who have documented the process when undertaking the preparation of music.. Books such as *The Musicians Way: A Guide to Practice by Gerald Klickstein* discusses a universal process of learning music¹⁴. Klickstein follows an advanced musician and discusses how he prepares and performs music at an advanced level. This is undertaken by a following the whole process a musician undertakes from receiving music to the first performance. Klickstein says that the musician goes through a universal process they have customized to their own method of performance, but there are truths that can be shared between everyone's methods. Where my research looks at the methods used by percussionists, this book gives a broader method Klickstein pioneered through years of his own performance experience. Both *The Musicians Way* and *Method of Movement* are important to my field of research as they specifically engage in preparation, performance, and techniques used in practice in order to achieve a quality performance. My research embraces the concepts from both authors to demonstrate the journey a percussionist undertakes in preparing a piece.

A pivotal book in the area of preparing percussion music is Steven Shicks's *The Percussionists Art*¹⁵. This book examines the music through the approach of a performer. The book is a practical viewpoint, looking not just at the big ideas behind

¹⁴ Klickstein, Gerald. 2009.

¹⁵ Schick, Steven. 2006

these and other pieces, but also at how those ideas are applied to the expression in sound. It explains the creative process behind famous composers who have written for percussion and the inspiration that influenced them to write their music. With Schick being one of the principal researchers in the field of percussion repertoire, he explores the heartbeat of what drives percussionists and composers to write these new works. Although this book is considered one of the most popular and useful books, it only explores the ideas of single composers and their music. Schick does not investigate the challenges of the repertoire in depth: rather he discusses more of the makeup of the music and the unique language early composers, such as Xenakis, undertake with percussion repertoire. An example of this is where the music was different at the time of its composition he talks about how Xenakis's unique notation of his music. Throughout this book you follow Schick's collaborative process but it has a small area of significance as he limits himself to one composer. This book shows an in depth collaboration between performer and composer both in agreement and disagreement, a theme analogous in my research.

Compared with Schick, Gary Cook discusses and develops the process of teaching percussion to students and how they can learn a valuable method of practice in more depth. *Teaching Percussion*¹⁶ demonstrates to students how to look for challenging areas in repertoire and how through practice they can resolve and learn the music. This text is an advocate for practice and the relevance of its importance.

¹⁶ Cook, Gary. 2005.

2.5 My Research

Where researchers such as Steven Schick have looked at the thinking composers have adopted in the process of writing music, my research examines the process of studying the music and what strategies need to be addressed in order to perform at a high artistic standard. In looking at the idiosyncrasies of the instrument, I discuss how and what needs to happen to make the philosophy of the music in the composer's mind become reality. Through this in-depth approach, I am able to explore these concepts more than Schick did because I am not looking only at the philosophy of the music but also the process to enhance the philosophy. I also aim to explore the mallet selection beyond Kite, because I can discuss in detail how mallets create a mood through changing the timbre on the instrument.

Working alongside a composer I am able to document the process from the learning of a work through to its performance, including a post-performance summary and analysis. While Cook discusses a process of teaching students how to identify technical obstacles in common percussion works, I am documenting similar obstacles with the addition of incorporating the composer's intentions for their new works. In my approach, I show how potential obstacles resulting from a composer's intentions can be overcome through these processes to achieve a mutual agreement on how something should be performed.

In identifying a gap in a relatively small research field, my research, through documenting the process of preparing and performing virtuosic repertoire aims to extend the ways in which we prepare challenging and new diverse repertoire. With many commentaries and composers' notes available for many new works, I ask the

question “what is the music about?” To answer this I continue to further document the processes that occur in realising the composer’s intentions where the advancement of technique is crucial in order to achieve the performance. As Schick points out in his book, we are currently in the developmental years of this performance craft. This exegesis aims to create a language from a performance perspective to academic merit through scholarly writing.

Chapter 3 – Djinn

3.1 Overview

Djinn was composed in 2009 by John Psathas for marimba and chamber orchestra in the celebration of his collaboration with Portuguese percussionist Pedro Carniero. This was the first concerto written for Carniero by Psathas for five-octave marimba. The premiere occurred in 2010 with the Christchurch Symphony Orchestra (NZ) conducted by Marc Taddei. The work was met with critical acclaim, both nationally and internationally as well as by journalist John Button.¹⁷

Composed in three movements, Psathas explores the ideals of Islamic mythology and the Djinn, a smokeless creature with free will. The Djinn only appears to humans

¹⁷ John Button of the Dominion Post attended the world premiere and said ‘the audience loved this mix of virtuoso dazzle and seductive colour.’ This European premiere was reportedly a hit with the audience in Athens too”. “Promethean News”, <http://www.promethean-editions.co.nz/php/NewsDetail.php?ID=195>, accessed 02/02/2013

in a smoke form and can be misleading in its appearance, although it will grant three wishes to its seeker. This idea of three wishes influenced Psathas to write three contrasting movements with little similarity. Each Djinn has the ability to choose between evil or good, similar to the human condition. In keeping with this trait, Psathas created a story that runs parallel to the movements. It shows the struggles of the Djinn and its choices, with the final movement proving the Djinn to be of good nature¹⁸.

Psathas pays homage to traditional Persian percussion concepts through the use of the *daff drum* in the first and third movements¹⁹. Having three percussionists set up in a gypsy-like manner, each section is accompanied by traditional Greek rhythmic patterns. This sits underneath the traditional and embellished Arabic harmony with very effective outcomes.

3.2 Movement 1 - *Pandora*

Pandora is composed in rounded binary form with a noticeable division in the part writing between the marimba work and the chamber orchestra. The first section of the marimba part is a three-bar pattern that moves along with a pulse of four: Fig. 7.



Figure 7: Opening three-bar pattern on the marimba. (Source: Bar 1-3, Djinn, Promethean Editions. John Psathas 2012)

¹⁸ In Sir Richard Burton's translation of *The Arabian Nights* it says, "the earth gave birth to Man and the fire gave birth to the Djinn, creatures condemned to dwell in the void between the worlds. One who wakes the Djinn shall be given three wishes. Upon the granting of the third, the unholy legions of the Djinn shall be freed upon the earth. "The Arabian Nights by Sir Richard Burton, E-edition", <http://ebooks.adelaide.edu.au/b/burton/richard/b97a/>, accessed 16/05/2012

¹⁹ This Middle Eastern drum is similar to that of a tambourine, made of a large wooden frame and a stretched goatskin. With small metal rings attached to vibrate when hit, the sound created is usually accompanied by vocals and eastern instruments.

The Greek myth of *Pandora* and her box is easily recognisable in the marimba part as the pattern continues for eight rotations creating an uncomfortable and chaotic emotion²⁰. This is highlighted by the jagged string entries occurring constantly throughout the first section, contributing to the chaotic emotion. By adapting a consistent mechanical drive in the marimba, the string entries contrast by filling out the harmony under the direction of the conductor and create a circling motif based on the three-bar pattern.

In the second section, a sudden change into a twelve-sixteen metre gives the feeling as though the tempo has dramatically slowed down; only the semi-quaver pulse remains the same in the marimba part. The marimba part in this section is based on a four-bar pattern in a strong two feel, contrasting to that of the first section: Fig. 8.



Figure 8: Section two is based on this four-bar pattern. (Source: Bar 28-30, Djinn. Promethean Editions. John Psathas 2012)

With the marimba part focusing on a consistent semi-quaver pulse with inserted triplets, the three percussionists play contrasting two and three pulse grouping underneath the solo creating an overall 6/8 or 12/8 pulse. This is highlighted by the double bass and cellos playing dotted quaver underneath the six-pattern resulting in a contrasting six against four:

²⁰ This story from Greek mythology shows how all the evils in the world had been locked in a box by Zeus and given to Pandora. Curious, she opened the box and released chaos. “Pandora had unleashed all the evils now known to man. No longer could man loll about all day, but he would have to work and would succumb to illnesses”. “The Story of Pandora’s Box”, http://ancienthistory.about.com/od/grecoromanmyth1/a/050410Pandora_and_her_box_or_pithos.htm, accessed 03/02/2013

Fig. 9



Figure 9: In the above three lines of this picture you can see the contrasting percussion parts to the strings. (Source: 33-35, Djinn. Promethean Editions. John Psathas 2012)

Being the most melodic section of this movement, the violins and viola have small fragments of that melody that occur over the top of the complex polyrhythms underneath, as seen in Fig. 10.



Figure 10: This example shows the violin melody underneath a strong bass pulse. (Source: Bar 41-42, Djinn. Promethean Editions. John Psathas 2012)

This melody synchronises with the marimba part and creates a unity over the top of the chaotic rhythms occurring underneath: a moment of sanity inside this busy

section. Following the ideas of Pandora’s story, this movement embraces several compositional techniques, integrating them on top of each other creating a separate emotion. Both sections make a final reprise before the movement finally concludes in a similar way to its beginning.

3.3 Movement 2 - *Labyrinth*

The Labyrinth is a Greek myth about a maze created by Daedalus to subdue a beast known as the Minotaur. The maze is a series of circles all intertwined into each other with no possible way of escape²¹. This movement is based on a series of sections that are joined together by sporadic lines of melody and time signature changes: Fig. 11.

The musical score for Figure 11 is divided into two systems. The first system (measures 53-55) shows a piano part with a melodic line in the right hand and accompaniment in the left hand. The marimba part is in unison with the piano's right hand. The triangle part has a rhythmic pattern. The second system (measures 56-58) continues the piano and marimba parts with various markings: 'molto sul pont.', 'all' sestono rilla', and '(pizz.)'. The triangle part continues with its rhythmic pattern. The bottom part of the score shows string parts with markings 'unis. con sord.' and 'senza sord.'

Figure 11: This example shows a unison relationship between strings and the marimba. (Source: Bar 53-55, Djinn. Promethean Editions. John Psathas 2012)

²¹ “A fiendishly intricate maze devised by Daedalus to house the Minotaur. The myth of an impossibly complex series of corridors may have been inspired by travellers’ tales of the historical palace or temple compound of Knossos”. It is believed that the complexity of these corridors inspired the story of the Labyrinth to become popular. “Encyclopaedia of Greek Mythology Online”, <http://www.mythweb.com/encyc/entries/labyrinth.html>, accessed 09/02/2013

Fig. 11 shows the relationship between the marimba and the strings. Unlike the first movement, where there is a consistent pulse through several parts, this movement is based on random interjections of motifs, similar to the maze built for the Minotaur. Psathas instructs that this movement can be performed with minimal or an abundance of *rubato*, depending on the conductor and the performers. One of Psathas's techniques in filling out the sound is to double a player's part with another, in this case the marimba. As the other parts dance around simple melodies, the marimba is performing demi-semi quavers to a simple string accompaniment. This creates a strong harmonic base for the melody, something Psathas is well known for:

Fig. 12.

The image displays a musical score for Figure 12, starting at measure 63. The score is divided into four systems. The first system features a marimba part (labeled 'mar.' on the left) with a complex, syncopated melody of eighth notes, marked with a piano (*p*) dynamic. The piano accompaniment (labeled 'p' on the left) is mostly silent, with a few notes in the bass clef. The second system shows three percussion parts (labeled '1', '2', and '3' on the left) with rests and a 'TRIANGLE' part. The third system shows a string section (labeled '1', '2', and '3' on the left) with a melody marked 'molto sul pont.' and 'p legato'. The marimba part continues with a busy, syncopated melody, marked with a mezzo-piano (*mp*) dynamic. The string section continues with a melody marked 'arco molto sul pont.' and 'poco'. The fourth system shows the marimba part with a dynamic change to fortissimo (*ff*) and a 'sub.' (suboctave) marking. The string section continues with a melody marked 'molto' and 'tr' (trills).

Figure 12: An example of a syncopated melody being accompanied by a busy marimba. (Source: Bar 63-66, Djinn. Promethean Editions. John Psathas 2012)

At Bar No. 83/Fig. 13, there is a *subito* halt of tempo setting up a marimba cadenza utilising the full five-octave range of the marimba. This cadenza is in a *rubato* style, giving the performer the ability to manipulate the tempo. Even with the use of *rubato*, Psathas writes this cadenza to be played with rhythmical accuracy. He emphasises in asking the performer to perform the triplet sections of the cadenza in strict accordance to the tempo of the set bar: Fig. 13.



Figure 13: An example of a strict cadenza written by Psathas. (Source: Bar 83-90, Djinn. Prometheus Editions. John Psathas 2012)

This movement concludes with a cadenza with similar rhythmical characteristics to the first cadenza, although in a different key: Fig. 14.

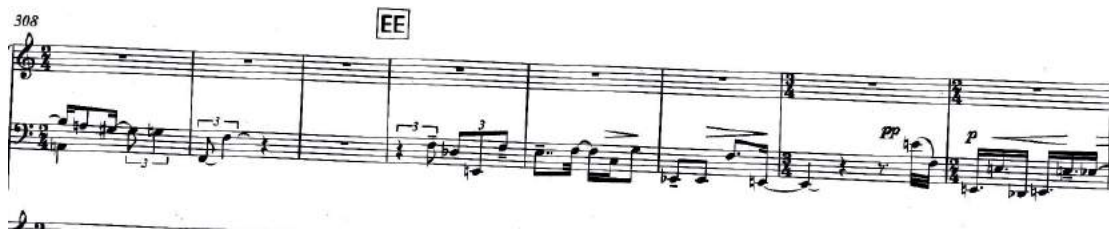


Figure 14: A variation on the first cadenza that still has to be played in perfect tempo. (Source: Bar 308-315, Djinn. Prometheus Editions. John Psathas 2012)

Psathas writes the middle section of this work at L to simulate a meeting with the Minotaur, someone who has made it to inside the Labyrinth. The middle section of this movement is uncomplicated and features Middle Eastern and strong, dominate harmony. The section focuses on the marimba and its ability to draw on soaring melodies and rhythmic roles. Psathas' writes this section with two concepts in mind, a leading voice with complex rhythms and a strong, steady bass section to

accompany. In harnessing the triplet motif, Psathas develops this section in quaver, crotchet and semi-quaver forms: Fig. 15.



Figure 15: This is the rhythmical section that is leading to the chordal highlight. (Source: Bar 152-155, Djinn. Promethean Editions. John Psathas 2012)

This rhythmical section continues until Fig. 16, where the whole orchestra and marimba come to a chordal junction. The marimba continues until the final cadenza, performing fast-paced rolls over three octaves with a moving bass line, a technical accomplishment for any performer: Fig.16.

The image shows a musical score for Figure 16, spanning bars 218 to 222. It consists of four staves. The top staff is a piano (p) part with a series of chords, each marked with an accent (v). The second staff is a vocal or instrumental part with three staves labeled 1, 2, and 3. Staff 1 has a melody with a 'pp' dynamic marking. Staff 2 is mostly silent. Staff 3 has a rhythmic accompaniment with accents. The bottom staff is a first violin (I) part with a melodic line, including trills and accents.

Figure 16: This is the chordal highlight that comes after a long rhythmical passage. (Source: Bar 218-222, Djinn. Promethean Editions. John Psathas 2012)

The work comes to an abrupt conclusion where the performer inserts the final cadenza, taking it to the end of the movement. The triangle meets on the last note signifying the Labyrinth has control.

3.4 Movement 3 - *Outdreaming the Genie*

The third movement is about the final journey with the Djinn indicating that everything will be fine at the end of our time together. Psathas writes that this movement is about the flight on the magic carpet and the process we go through in choosing if everything is all right, what is good and what is evil. It conjures up images of fast-paced flying and accessible melodies, reminiscent of anyone's childhood. Ultimately we have the final choice, like the Djinn, in which way we will decide to go.

The opening features heavily syncopated marimba writing, with no rhythmical support from the chamber orchestra. It shows the audience how the marimba can dominate the ensemble as well as how easily the instrument produces a different, bright timbre: Fig. 17.



Figure 17: Opening syncopated section of the marimba. (Source: Bar 1-6, Djinn. Promethean Editions. John Psathas 2012)

This section begins with a *legato* melody on the marimba with the Percussion I part taking over the rhythmical role the marimba sets in the first bar. This section places the marimba in a *concerted* style, performing the solo over the top of a strong and supportive string accompaniment with a consistent syncopated tempo generated from the Percussion I on a concert tom: Fig. 18.

The second section at E signifies a sharp turn on a magical carpet, according to Psathas. The tempo changes suddenly and the music enters an eight-bar section characterised by sudden and short string entries in a consistent semi-quaver pulse from the marimba, similar to the opening but with more intensity. This leads into letter F where a similar motif from the *legato* section at the beginning of the movement is stated. The busy marimba pattern moves suddenly and quickly over a large octave range, resulting in an upwards and downwards motion, illustrating the Djinn's character: Fig. 18.

Figure 18: The constant marimba and tom line creates a sense of flight. (Source: Bar 62-65, Djinn. Promethean Editions. John Psathas 2012)

The section follows a similar pattern until its conclusion at letter L in Fig. 19, where a significantly slower version of the opening draws the performer back to the opening of the movement, but with a darker sonority. By abruptly changing the tempo, the composer achieves this effect as observed in the new tempo marking in Fig. 19, a contrast to the marking in Fig. 17.

Figure 19: This example shows the sudden change of tempo. (Source: Bar 116-119, Djinn. Promethean Editions. John Psathas 2012)

This is then taken over by a reprise of the *legato* melody from the previous two sections of the movement. It is extended through to a unison section between the low strings, high strings and marimba. By having the lower strings playing quavers and high strings playing triplets with the marimba playing a disjointed series of

descending thirds, a sense of falling unevenly to the ground is created, as portrayed in Fig. 20.

The image displays a musical score for two measures, 152 and 153. The instruments listed on the left are Marimba (Mar.), Harp, Percussion (perc. 1, 2, 3), Violin I (Vln I), Violin II (Vln II), Viola (Vla.), and Cello (Vc.). The Marimba part features a rapid, repetitive eighth-note pattern. The Harp part is mostly silent. The Percussion parts have specific rhythmic patterns. The Violin and Viola parts play sustained, flowing lines with slurs. The Cello part is marked 'uniso.' and plays a steady eighth-note accompaniment.

Figure 20: An example showing the fast moving music that represents a flying carpet. (Source: Bar 152-153, Djinn. Promethean Editions. John Psathas 2012)

The next section takes us to one of the most challenging sections of the concerto. By harnessing the use of note lengths, Psathas indicates that the tempo is to be preserved but then slowly decrease in note values, giving the impression of it slowing down. This is as perceptive as it is challenging to play because the marimba needs to maintain a steady pulse throughout the section as well as maintaining the changing note values: Fig. 21.



Figure 21: An example of metric modulation that creates a slowing down effect while maintaining tempo. (Source: Bar 170-184, Djinn. Prometheus Editions. John Psathas 2012)

After letter T there is a similar section to E. These sections illustrate the marimba to a motor powering over the top of multiple octaves. In addition, Psathas includes three rapid key changes that help to create the intensity he wants. The strings are scored to colour the motifs heard from the marimba such as in letter V in Fig. 22. The demi-semi-quaver pattern on the marimba is more like a trill than a measured set of notes. In these sections the strings are used to highlight the tone and the context of each demi-semi-quaver: Fig. 22.



Figure 22: These demi-semi-quaver patterns are to be like a trill on the violins. (Source: Bar 199-203, Djinn. Prometheus Editions. John Psathas 2012)

The final section of this work uses a similar approach to that of the gradually slowing the note values but not the tempo. By starting this final section with crotchet = 63

and then gradually speeding up to letter DD, a single quaver equals the same pulse of the previous and final crotchet as in Fig. 23. This continues until the original tempo is reached and the original feel of the movement returns: Fig. 23.

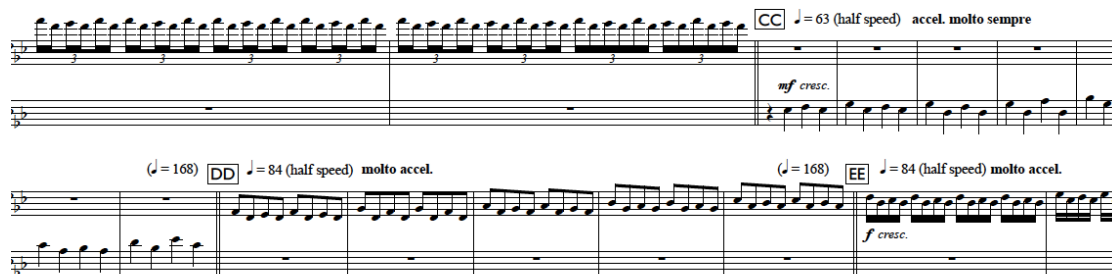


Figure 23: The ending is an example of how Psathas gradually speeds up the ensemble. (Source: Bar 255-270, *Djinn*. Promethean Editions. John Psathas 2012)

This movement concludes with the same disjointed 3rds passage on the marimba over the identical string accompaniment heard earlier. The tempo is accelerated until the final marimba statement. The marimba goes through semi-quavers quaver triplets, crotchet triplets and then in reverse until the opening theme of Movement I is heard in the final 4 bars: Fig. 24.

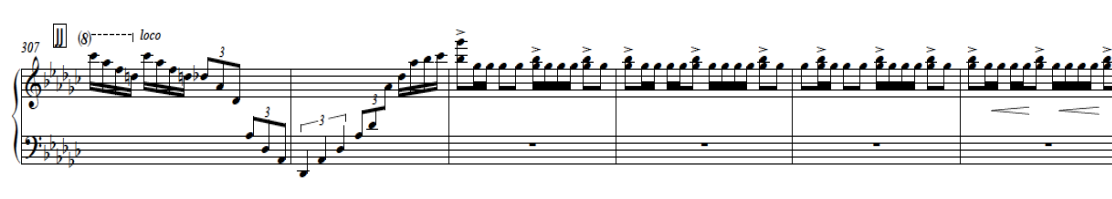


Figure 24: The ending of *Djinn* happens after a sudden rush back down and up the marimba. (Source: Bar 307-312, *Djinn*. Promethean Editions. John Psathas 2012)

3.5 A Summary of the Performance of *Djinn* with examples demonstrated in DVD No.1

The Australian premiere of John Psathas's *Djinn* for marimba and chamber orchestra occurred on the 15th December 2011 at the University of Newcastle. This

performance was part of a concert entitled *An Evening of Stories through Music*. The concert featured works that told stories through programmatic music, like the story of the Djinn in Arabic mythology. This was the third time this work had been performed, with Pedro Carniero performing the work the previous two times in New Zealand.

This was my first opportunity to work alongside a conductor from the beginning of the learning process to the final performance. In having the composer's feedback on my playing, it is easier to adapt my techniques, from which grip to use, to which notes are the most important in a phrase, how to treat a tenuto marking, for instance. In having the majority of questions answered before the rehearsal process began with the orchestra, I could make decisions and adapt more efficiently to achieve a satisfying result.

This is a critical analysis of the Australian premiere of *Djinn*. The analysis is based on my post-performance evaluation supported by a recording from the performance on the day. This analysis focuses on the major preparation decisions and how they were executed in the performance.

Djinn continues the mechanical style that Psathas is well known for. With challenging rhythmical roles, each part features complex rhythms that interact with the other textures throughout all the three movements. In taking three months to learn and memorise, I found that Psathas had written a work that required precise preparation to enable such a challenging work to be performed to its potential. Through a relationship with John Psathas via email, file uploading website Dropbox, and Skype, it was easy to acquire his opinion directly on decisions relating to the work. I could

video a section and send it to Psathas and have his comments back within a week. Sometimes there would be a consensus on a particular section and nothing would have to change, whereas on other occasions I would have to change aspects of my approach to make sure that a mutual agreement has occurred over a section between me and Psathas. In preparing *Djinn*, there were numerous times when decisions I had made were contrary to the composer's view. However, Psathas then provided an alternative, as he considered my choices would not have realised the work to its full potential. An example of this is how I perceived the use of *rubato* compared with Psathas's perception of its use.

3.6 Movement 1-*Pandora*

Direction and Emotion

The first movement could be considered the least demanding of the three movements, but it has its tests, for example, the constantly changing textures. Every instrument in this movement is exposed as the dynamic of the ensemble changes rapidly. The marimba opens the work with a *mezzo piano ostinato* with only two changes occurring with the pattern. In listening back to my performance the marimba could have been softer, as this would have helped with the dynamic variation in the string parts [DVD: Chapter 1]. This is due to my choice of mallet selection and the role the marimba had in the ensemble. The marimba has the rhythmical role throughout the movement and the dynamic should never change, thus creating an effect of the marimba fading in and out of the ensemble without any variance in the dynamic²².

²² After John analysed the recording he said, "the marimba ostinato (pattern) has to be very still even though its moving fast, it has to be poised and even. It needs to be quieter, it's more of a implication than an articulation".

The middle section of this movement features a groove created by the percussion section of the ensemble, featuring a *Djembe* (African drum), tambourine and bass drum. On the score, the groove begins quietly and moves through to a moderately loud dynamic. In the performance, the percussionists began too loud and the effect was lost in the sudden *crescendo* [DVD: Chapter 2]. Where the atmosphere was created, it would have been a stronger emotion if the groove came through progressively instead of suddenly²³.

The tempo is maintained and the overall mood of the work is created successfully with the relationship in all the parts. In preparing the marimba to play a rhythmical role in this movement, it is not difficult to maintain the tempo in the sections when it is just strings and marimba. In the early preparation however, these sections were identified as troublesome because the strings players found it off-putting to maintain a tempo from the fast marimba *ostinato* occurring underneath.



Figure 25: John Psathas

²³ John has stated that the “Djembe, Tambourine and Bass drum should fade in like they were coming in from a distance, like a far off view in a distant desert”.

Psathas is satisfied with the power and emotion of this movement²⁴ but said he would have liked to hear more dynamic variety throughout the ensemble, as well as a more defined role of each voice in the ensemble. By having the marimba secure in the background, the rhythmical nature of the part fades in and out. The conductor and I did not consider this in the preparation, as our interpretation of the score suggested the role of the marimba is to supply the rhythmical impetus of the movement²⁵.

Rhythm and Problems

A constant issue while preparing the work with the chamber orchestra is making the string players develop a strong ensemble awareness incorporating the complex rhythms, especially when playing these in a unison melody. In this performance the relationship between the first and second violins was strong enough to maintain these unison rhythms, thus allowing the marimba to maintain the tempo and overall groove, a role not intended for the marimba as per the composer's directions [DVD: Chapter 3].

Overall, this movement was well executed with most of the pre-performance decisions realised. The conductor wanted me to give him a tempo by tapping my finger on my chest before the movement, a request I was not comfortable with, but I nevertheless complied with his request.²⁶

²⁴ In John's email reviewing the recording in January 2012, he stated that in this movement "the energy in the ensemble is powerful and strong".

²⁵ Even though the marimba is the only consistent pulse in this movement, John wants the marimba to be "buried in the string sound as well as being unmoved".

²⁶ This is a method used by amateur conductors who can't memorise or prepare tempos without the advice of a player giving it to them. Where I understand that the composer I was working with was only still a university student, this level of repertoire needs the highest understanding and skill.

3.7 Movement 2 - *Labyrinth*

Direction and Emotion

With this movement having sections that are defined by no particular characteristic, Psathas requested the most important part of connecting this movement is what occurs between each section. The first major change occurs when a passage comes to an abrupt ending and drops in dynamic. The music states there should be a pause; however, there is no direction from the composer indicating how long it should be. In this performance we decided that the pause should be maintained, giving the audience an opportunity for a small break and then suddenly be drawn into the next section when the pause ceased [DVD: Chapter 4]. After listening to the recording, Psathas stated that the pause was too long and the reflection idea, though worthy, has little merit in the process of the audience digesting the movement²⁷. I agree the pause should have importance placed upon it, but the sudden change factor will occur for the audience irrespective of how long the pause may be. I believe this is because of the sudden change in tempo and the effect created by the violin, which will instantly draw the audience into the new section of the movement.

I chose not to discuss with the composer the first marimba cadenza. As the performer, I thought I would interpret it and see if we both agreed with my interpretation after he studied the recording. I decided early in my preparation with this cadenza that I would use liberal amounts of *rubato* because the movement rapidly and constantly changes and I thought the cadenza would be a contrast inside the movement. While Psathas enjoyed the playing, he did not agree with the multiple

²⁷ In John's email summary, his comment about the pause is: "The gap at bar 138 is way too long, this reason why I try not to use fermatas (pause). This pause should be almost a slight breath".

use of *rubato*²⁸. The cadenza is written rhythmically and features writing that would be a challenge to perform at a constant tempo. By playing in a *rubato* style throughout, I could create a different emotion to the previous section, something that the composer and I disagreed upon. I decided the pause inside this cadenza is beneficial to the chamber orchestra and myself [DVD: Chapter 5].

As a percussionist, it is hard to work on a concerto at this level and not be aware of what the other percussionists are doing in the section. Focusing on my part and its role throughout the ensemble, I am constantly checking and listening to the orchestral percussion parts. With three two-hour sectional rehearsals with the percussionists, I was satisfied with the preparation of their parts and the way they were integrating them within the ensemble. After listening to the recording, I could identify the inaccuracies in their parts when I was following the score. When working on a challenging part, shortcuts can be an option but this should only be a last resort. Attention to detail in this performance is lacking in the aspects of dynamic control, speed between instruments, and tone. One example is the sudden rush of sound in a suspended cymbal roll that is crucial in creating the mood of the following section of this movement²⁹. In this case, the player ignores all dynamic requests indicated by the composer and the ensemble quickly accelerates to a loud dynamic, leaving little room for the build-up into the next section³⁰. It was difficult, under concert conditions,

²⁸ John's comment on my use of rubato is that "the cadenza playing is beautiful and features many musical moments, but there is little room for rubato here."

²⁹ A suspended cymbal creates a wind like effect that progressively gets louder. Composers use this sound to highlight sections or to join musical phrases and motifs.

³⁰ John places importance on all his suspended cymbal rolls, and in his review of the recording he states this about the suspended cymbal. "The cymbal roll at bar 207 is apparent to soon, and this is the same at bar 219, and defiantly at bar 236. All these rolls need to be slow building, helping to set the emotion".

for the conductor to adjust this situation because his attention was already on both the marimba and the string parts [DVD: Chapter 6].

Overall, the orchestral percussion parts in this work are not challenging and even sometimes non-existent. Where there are only occasional contributions to the ensemble in this movement, each hit or roll needs to be treated with as much integrity as the solo marimba part. Most of Psathas's criticism of this performance is against the minor percussion parts, such as the triangles, cymbals and tubular bells (see Fig. 26).



Figure 26: A set of common tubular bells

These parts, such as the triangle were important because of their contribution to the timbral texture. With these tone colours, John places a triangle in the middle of a busy string passage and the natural sound of the instrument cuts through³¹. These problems arose because the players did not treat the small parts with the large roles they had been given.

Rhythm and Problems

³¹ "The triangle is important in creating an almost inaudible sound in the background of the busy strings, these need to be here and needs to have a thinner sound". John emailed me this request when I sent him a recording of a rehearsal.

One of the characteristics of this movement is Psathas's approach to polyrhythms³², something that most audiences would not understand without observing the score. There are sections in this movement where the marimba is elevated above the exciting rhythms being played by the strings. One of the main strategies in studying this work is preparing the marimba part independently because the strings often interpret rhythms differently to that of percussionists. One example is the metric nature of triplets, and how string players traditionally do not maintain the tempo through the triplet, they have a tendency to drag the note value. With this movement having a fast tempo, I had to take into account the string players and how they would approach the rhythms and most importantly how I could adapt these contrasting phrases over the rhythmical string section. This made it easy to listen to and adapt to in the performance [DVD: Chapter 7].

In combining my understanding of the ensemble and my approach to adapting rhythmic value to the players, there were sections where unison rhythms occurring between VI 1 and VI 2 and the marimba where I could not accommodate discrepancies of the rhythmic values. This problem arises in areas of advanced rhythms such as dotted semi-quavers inside straight semi-quaver patterns. In rehearsals it was impressed upon the violinists that they would have to work on these rhythms with a metronome ensuring accurate placement of the note values. Overall in this performance these sections did not create too many problems, but the inaccuracy of the rhythmic value in some of the violins was not as consistent. One of the main reasons for this problem, I believe, is a lack of correlation between the

³² A polyrhythm is when two contrasting rhythms are played against each other to create a singular universal rhythm. In this movement this occurs constantly between the marimba and the strings.

accuracy of rhythmical security and the player's level of technical facility [DVD: Chapter 8].



Figure 27: Photo of the ensemble playing Djinn

The next section of this movement is secure and is one of the highlights of this performance. The marimba part is technically difficult, as you need to play octaves using the four mallets with consistent changes in the left hand. The ensemble demonstrated amazing energy throughout this section and creates much tension and release for the audience. A challenge that occurs here is the first and only time there is scored unison between the viola and marimba. The viola part itself is one of the most difficult parts in the orchestration: an ensemble challenge that the composer presented is a dotted crotchet melody played between the viola and the left hand of the marimba. The Violist and I approached this by having a visual contact to help us perform the melody in unison³³ [DVD: Chapter 9].

³³ John writes in his email analysis of the recording that “this section has great rhythmical accuracy between the two moving parts, where the intensity in the remaining players stays well underneath the moving motif”.

In successfully achieving rhythmical accuracy and identifying sections that might be awkward in the ensemble, it is preferable for me to adapt my part to the other players by having multiple approaches on the marimba. This approach made it possible to get around the hurdles of universal rhythms and meeting the composer's instructions and aspirations.

Techniques

The second movement's principal task is its layout, with no section being similar, whereas the other two movements have consistent and defined sections. Labyrinth has no similar sections but has a format of four contrasting sections and two marimba cadenzas. This movement is testing because the techniques used by the violins and cellos are unique in that they have to place mutes on and off the bridge rapidly while playing harmonics and performing quartertone trills³⁴. The composer did not mind which method violinists used, so long as the overall effect was achieved. In the performance, the decision was made that the violinists should not place mutes on the instrument when they are performing quartertone trills; a decision we regretted later when the recording was listened to. (See Fig. 28)

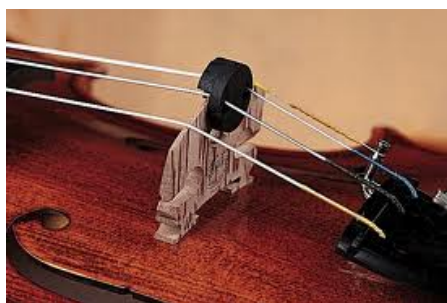


Figure 28: A typical black violin mute

³⁴ Quartertone trills are rapid and fast changes between two close notes. This creates a dissonant sound that is used by composers as an effect.

By using the mutes, the sound is more mysterious and creates the effect that Psathas intended; however, it did work in this performance because the abstract dissonant sound simulated the effect. This was decided upon because some of the violinists struggled with this technique and the overall dynamic was too soft when the strings were muted [DVD: Chapter 10]. The mutes would have been more effective in making this dissonant sound even more mysterious and softer to the ears³⁵.

A problem that had to be addressed in rehearsals was the required constant tempo in the second section where the violins had staggered entries, a task that was not comfortable. Since the tempo is moving fast, it is difficult for the violinists to not only maintain the tempo of the entries but also perform a challenging technique of quartertone trilling. We decided that the dynamic of the muted violins was too soft and ultimately did not create the effect of this section. In allowing the violins to perform this part *senza sordino* (without mutes), we achieved the dynamic value of the timbre but lost part of the effect. Upon reflection on this section, I believe we did not place significant importance on each instrument and its role. We should have stated that the order of importance was with the bass and cello because of the consistent pulse. The marimba would follow this with the atmospheric techniques on the violins. It would have been more effective if we changed the dynamic of the lower end of the ensemble and let the violins' effect be heard with mutes on rather than off.

³⁵ John in his analysis of the recording states that "the upper violins in this section are way too loud, let the effect speak for its self. They need to use mutes".

With the composer's thoughts in mind³⁶ we still believe the ensemble produced the overall emotion of this section [DVD: Chapter 14].

3.8 Movement 3 - *Outdreaming the Genie*

Direction and Emotion

This movement is the most rewarding to play because it includes elements of both symphonic and percussion writing. There are soaring melodies throughout the orchestra, challenging and fast marimba writing, pleasurable and easy to listen to harmony and the occasional sudden tempo change. All these characters are present in this movement but, as common as they are in writing, they are always a challenge in the way the ensemble and the soloist prepare and combine their parts in order to make the movement successful.

One of the major difficulties in this movement is the indicated tempo, something that Psathas is particular about and without compromise³⁷. With the limited rehearsal time we had with this ensemble, the players were expected to be able to play the music as close to the tempo as possible. A struggle here is in the relationship between the conductor and soloist. I had been working on the marimba part with a direct influence from Psathas, I had learned this movement at the prescribed tempi. I had stressed the importance of maintaining these speeds to the conductor and how he should approach the orchestra. However, with his view being that the tempi were too fast

³⁶ "The upper strings need to have mutes placed on the instrument, as the effect will still be heard even when muted". Both the conductor and myself understand this but we thought the muted violins would cause more problems.

³⁷ John has written the opening of this movement at 168 beats per minute. As John composes on a computer it is easy for him to play it back at any speed, something that is not as easy with real musicians.

and almost impossible to execute, on the day of the concert the conductor worked solely with the strings in a sectional and rehearsed the ensemble at a slower tempo before the sound check. I was not pleased with these tempos as they directly changed my rehearsed approach to the movement and the overall view that Psathas had written pertaining to the movement³⁸. Naturally, I could not change or demand that the ensemble play the movement at the desired tempo and we performed this work under tempo by ten beats per minute. It did not change the atmosphere or the desired effect on the audience. It did, however, from the player's perspective, make it easier to control all the elements of the ensemble. Where Psathas is extremely happy with this movement and the power that all the players sustained throughout a challenging ten minutes, he did say he would have preferred the marked tempo³⁹.

Having an ensemble consisting of proficient string players it is easy to see their talents highlighted throughout this movement. Different to the other movements, *Outdreaming the Genie* features more motivic writing that could be easily connected to visual media like film or computer games, something that Psathas is passionate about.

³⁸ Since we had minimal rehearsals, each time I would insist that we practice the work at my speeds. In this case the conductor had time to change the direction of this movement by his own influence. Without me being there to instruct him on his tempos, he went to what he thought sounded good, not what the composer and myself wanted.

³⁹ In an email I sent John regarding playing this movement slightly underneath his marked tempo he responded with " the tempo has to be at 168 bpm as this contrasts the 126 bpm in the next two sections".



Figure 29: A digital image of a Djinn I used to inspire the ensemble

In parts of this movement it is easy to work with the orchestra when they became the centre of attention through their solo sections. Within these sections, the conductor and I identify the soaring melodies and share the responsibility of leading the intensity of the music to the concertmaster to powerful orchestral climaxes [DVD: Chapter 12].

In these sections it is the role of the marimba to lead the orchestra, not the other way around, as we had done with the unison tom and marimba sections⁴⁰. After listening to the recording it is clear to see where the roles of each instrument lay at the different stages throughout this movement, something that we did not focus on as much as we should have when rehearsing.

The 3rd movement features the most challenging percussion parts in the work, especially the consistent concert tom part in Percussion 1. It is different because most of the rehearsal focuses around the percussionist parts and their role within the

⁴⁰ John, in his review of the recording, stated in his email “the marimba at letter E and T is a form of accompaniment. The string melodies, even with the marimba doubles, must be foreground”.

ensemble. Psathas initially writes his music and then imports it into a synthesizer program to create a high quality midi version of his compositions in order for him to accurately assess what can be conceived⁴¹. In this movement, the concert tom (drum) on the score indicated that its role is to steady the tempo so that the ensemble and the marimba had a 'metronomic pulse'; however, this is not the case in reading Psathas's comments on this movement⁴². When the tom part is extremely challenging, Psathas prefers the tom to be of a lighter timbre and tone, something that can be achieved by lifting up the pitch or muting the tom. In my preparation this had not been considered because we did not analyse directly the digital tom sound that Psathas had sent. Following feedback from the composer, the role of the tom is not to be an under-pulse, but rather more of a feather floating consistently in the air. We realised that the tom could have been higher in pitch and less in resonance [DVD: Chapter 13]. When this movement flows up and down like a flying carpet, Psathas confides the connection between the marimba and this specific tom sound as if they are collaborating together to create this effect [DVD: Chapter 14]. The relationship between the marimba and the tom is always important in preparation as we see the two as an aid in assisting the tempo throughout the orchestra. However, this creates problems when the unison sections were played; the role changed from a melodic/tempo role to that of an accompaniment. An example of the melodic and tempo role is in the opening section where the marimba and the tom are performing the only moving parts [DVD: Chapter 15]. When these sections occur it is important

⁴¹ Music notating software such as Sibelius and Finale has average audio samples, making the playback of a work sound harsh. By importing the music into a synthesizer program such as Logic, the composer can get a higher quality sample of his composition. This can cause problems because a composer can sometimes get an unrealistic expectation of how their work could sound.

⁴² Traditionally percussion instruments in this type of composition would be used to maintain a tempo, keep the pulse. John commented on the recording that "this concert tom is not keeping a pulse, it is a form of accompaniment, and in this recording it sounds like its bashing away to keep everyone in time at points".

that the tom observes the marked accents because they were synchronised with the marimba part. In my performance these sections were executed successfully, even though our understanding of the roles in Psathas's concept is different. On the score there is very little to indicate that the tom should not be performing a strong underlying pulse to help maintain the ensemble. With the benefit of hindsight, the composer could indicate more clearly through a 'composer's note' what effect he wanted. It is unusual for a percussionist to have a rhythmical role and not see it as a contributing factor to the overall rhythmic stability of the orchestra [DVD: Chapter 16].

There are moments throughout the 3rd movement where the marimba comes out of the accompaniment role and performs short unison motifs with the strings. It is easier to tell the strings not to focus on the marimba part at all, as the marimba can move in and out of the string orchestra more readily than having twelve musicians adapting to one, something that worked well in this performance. In these sections I want to highlight the string motifs and keep the marimba accompaniment in the background of the melodic roles with the unison sections being only highlighted by the marimba. The numerous times this occurs throughout this movement were all successful because of my approach when preparing the work [DVD: Chapter 17].

Rhythm and Problems

Psathas is impressed that the energy of the opening of this movement is realized through the tempo, even if it is slightly below what had been indicated. Unlike the second movement, where there was inconsistent pulse in the ensemble, in this performance this is not a problem [DVD: Chapter 18]. In this example you can hear the strong relationship between VI 1 and VI 2. When the VI 2 are performing semi-

quaver patterns in unison with the marimba, the off-beat entry of VI 1 is secure. These roles occur throughout this movement and alternate between VI 1 and VI 2. When preparing this whole work it is important to ask the violins to understand patterns such as in the example of track 12. These semi-quaver cells are consistently placed throughout this movement and each one has to be rhythmically secure because they are usually in unison with the marimba part. In the opening, the VI 2 not only perform well together, they also maintain the energy of the opening. In having these steady pulses throughout the work during the preparation, it is easy for me to accommodate my part to the orchestra and not have them all adjusting to me⁴³.

A successful preparation technique we exploited is the sudden change in the tempos, which occurs at several times throughout the movement. Some of these tempo changes needed a variety of approaches until we found what was successful and were able to maintain the integrity and purpose of the change. An example is the change of the opening tempo in the second section of the movement where we gave the marimba the role setting the new tempo. In this performance it works well and is acknowledged by Psathas as a worthy choice to set the new tempo⁴⁴. There is a problem at the first tempo change when the string orchestra did not listen to me and followed the conductor, even though we had discussed that I would be setting the tempo at this point. The conductor tried to correct the tempo and it worked with minor blemishes, creating a solid new tempo after two bars [DVD: Chapter 19].

⁴³ In learning the work, John stated “ these violin passages need to be rhythmically accurate, almost like a percussionist was playing them”.

⁴⁴ John instructed in an email “this change needs everyone to meet head-on the first beat. It is your decisions which instrument can assist in this process”.

At a similar change later in the movement, the ensemble listened to me and the problem from the first change did not reoccur. A point that could have helped these changes would have been a stronger beat given from the conductor where he used his whole body to gesture the change while being cued by me. This is the first major work of this genre that the conductor had worked with and his anxiety was seemingly apparent throughout the performance. I have always felt it is important to have a conductor who expresses themselves through facial and body gesture and not solely the baton. This is an area that they will develop through experience. The hardest section of this work is where the ensemble slowly decreases in note value, creating a slowing down effect. The conductor indicated this, making the effect work successfully.

In the second movement, the conductor worked on relative tempos; sometimes he changed his beat to follow certain instruments. It is imperative this section required a beat when cueing instruments so that they progressively slowed down and then sped up as required [DVD: Chapter 20]. These tempo changes were important in maintaining the relationship between the sections. With secure preparation ideas and pre-empted techniques for rehearsals, the conductor and I fluently bridged the gap between the sections.

When I started learning *Djinn*, I learnt sections and then rehearsed with a rehearsal track that Psathas created using a digital orchestra⁴⁵. This had problems because I had two versions in my mind: the version I had prepared with digital orchestra with

⁴⁵ This rehearsal track was made using the Logic sequencing program, the same program he uses when writing his music.

‘tuneful’ strings and the version I was developing from when I began rehearsing with the orchestra. For example, one section that always frustrates me is when the strings would be playing in their upper register and I would be playing on the highest notes on the marimba. In rehearsal there was not adequate time allowed to match the pitch between both instruments. With the conductor deciding what he needed to be rehearsed, some pressing considerations were somewhat overlooked. Sometimes we never got to rehearse a section slowly that ultimately would have proved beneficial in the final outcome. In addition, time management played a factor. I think it would have been beneficial if we spent time comparing the higher register of the violin with the highest part of the register on the marimba so there is an agreement in the intonation. With the ideas of Genies and flying carpets, naturally the music would move up and down the register to simulate a flying experience for the listener. Even though this section worked well in this performance, I think if we had rehearsed this section slowly we could relate the parts more successfully. Where the strings go from ascending and descending triplets to semi-quavers, I believe they gave more importance to the sound instead of the actual direction and effect that Psathas had wanted here⁴⁶ [DVD: Chapter 21].

Overall this movement requires various decisions regarding the way we approach tempo changes, roles in the ensemble, rhythm and melody and, ultimately, how the ensemble would be achieved. There were times when I disagreed with the conductor and his approach because I was working directly with the composer and his

⁴⁶ This section was one of the first I asked John about. Where the music is moving fast, I asked him if he was worried about the intonation and was the movement more important than the pitch of the instruments. John wrote “even though the up and down movement creates an effect, there is a melodic variance in the writing that needs to be heard. The pitch is crucial in this melody being achieved”.

requests. Through negotiation, our ultimate decisions provided a pathway to shape successfully the final movement. It is interesting how Psathas orders the movements: the intensity starts low from the first movement to the most intense at the last, creating mental anguish by the time you get to *Outdreaming the Genie*. This shift in emotion is overwhelming and could easily have a detrimental effect on the playing. Fortunately, in this performance this did not happen because I was prepared, and with this confidence we realised the work with the composer's intentions and visions.

3.9 Conclusion

After six months of preparation we successfully performed one of the most challenging works the ensemble and I have ever embarked upon. The decisions made were important because as a soloist they lead to an efficient rehearsal process, a given in the professional environment. One example is the consideration of how we would treat different rhythms or when the marimba should be the focus point of the work is considered. All these decisions are important to create a productive situation to work in by following through what I have undertaken by melding the role of the marimba part to the orchestra, not the other way around. The challenges of getting an orchestra to play new music from a composer that is rhythmically driven had its challenges but, ultimately, when we made the connections between the different rhythms, we bridged the gap between how instrumentalists approach rhythms and how they interpret subdivisions. Situations do go wrong and preparations can be forgotten in the performance process because that is the nature of performing; however, the main choices provided a secure platform for this performance.

Chapter 4 – Happy Tachyons

4.1 Overview

John Psathas composed *Happy Tachyons* in 1996 with funding from Creative New Zealand and the Arts Council of New Zealand (Toi Aotearoa). The work was written at the request of Scottish percussionist Evelyn Glennie who is renowned for her virtuosic and skilful playing of new percussion repertoire. (see Fig.30)

Composed for marimba, vibraphone and piano, *Happy Tachyons* is considered to be one of the greatest challenges in any percussionist's performing career. In Psathas's program notes inside the score it states:

The technical demands of the work are deliberately pitched at the edge of what is humanly possible, particularly the sections where the percussionist is required to play both vibes and marimba at the same time⁴⁷.

With techniques such as playing two instruments simultaneously, *Happy Tachyons* focuses on uncommon and unusual techniques, with some being virtually impossible to perform. This work is based around the hypothetical particle known as a Tachyon, a particle that sits in front of light. (See Fig. 31)

A tachyon is described as:

A hypothetical particle that always moves faster than the speed of light. The word comes from the Greek term Tachys, which means swift, quick, fast and rapid. The tachyon particle plays an important role in modern physics⁴⁸.

⁴⁷ Psathas, J. 1996. *Happy Tachyons*. Wellington: Promethean Editions

⁴⁸ *About.com Physics*, <http://physics.about.com/od/physicsqtot/g/tachyon.htm>,

This description of a tachyon is evident in this work because there are brisk tempos that bounce between the percussive instruments and the piano with brightness and a fast intent.



Figure 30: Percussionist Evelyn Glennie

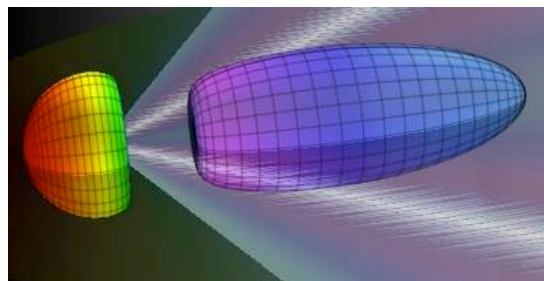


Figure 31: A digital representation of a Tachyon particle

Composed with clearly defined sections, the instrumentation of each motif can be summarised as:

- Introduction Vibraphone and Piano
- Section A Marimba and Vibraphone with Piano

Accessed 24/09/2012

- Section B and C Unison Vibraphone and Marimba with Piano
- Section D Vibraphone and Piano
- Section E Marimba and Piano
- Section F Vibraphone and Marimba with Piano
- Section J Marimba and Piano
- Section K Vibraphone and Marimba with Piano
- Section L Vibraphone and Piano

The following discussion looks at each section of *Happy Tachyons* and details the process of learning it. This includes identifying the challenging parts and the techniques involved as well as mallet selection and the approach to learning the individual sections.

4.2 Introduction

The opening of this work has a clear introduction presenting the main theme that is maintained throughout the first few sections in different forms. The main theme can be observed in Bar No. 1-4 (Fig. 32). The pattern appears throughout all sections with this introduction setting the shape of the work.

HAPPY TACHYONS TO EVELYN GLENNIE
John Psathas

The image shows the opening six bars of the piece. The top system includes staves for Marimba and Piano. The middle system includes staves for Vibraphone and Piano. The bottom system includes staves for Vibraphone and Piano. The score is in 4/4 time with a tempo marking of quarter note = 142. The opening six bars feature complex rhythmic patterns with dynamic markings such as *p*, *f*, *fp*, and crescendos/diminuendos.

Figure 32: Opening six bars. (Source: Bar 1-6, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

Not only does this section introduce the melodic theme that occurs throughout, it also introduces the dynamic variety that Psathas employs. The composer's instructions inside the score states: 'The success of this piece lies in the realisation of the accents and dynamic shapes in the melodic lines'⁴⁹.

This can be seen with the *fp* markings on several notes in the opening bars with the crescendo and diminuendos happening around them. This type of writing can be confusing for performers because there are a number of instructions that could be easily misinterpreted. Naturally, percussionists would play a small *crescendo* over a set of semi-quaver triplets, where every time the composer has written this he has written the crescendo marks. In Psathas's later compositions this characteristic disappears from his writing because he has a greater awareness of the techniques

⁴⁹ Psathas, J. 1996. *Happy Tachyons*. Wellington: Promethean Editions

used by percussionists and how they incorporate them into their method of playing:

Fig. 33.



Figure 33: An example of John's muddled instructions. (Source: Bar 6, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

This also occurs in the piano part with the pianist having to play what could be considered an absurd number of *fp*'s (see Fig. 34). Each one of these small directions could have been noted more simply with the end result being the same. The general shape of the piece is stated in these bars but in the latter sections, where variations occur, the excessive instructions can be confusing Fig. 34.



Figure 34: An example showing how the groove comes from the accents. (Source: Bar 15-16, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

With these visually perplexing musical instructions, Psathas creates the mood of the work in this introduction section, even though it could have been done with greater clarity.

The section is written with a four-mallet grip in mind a strong focus being on the inner two mallets performing the faster phrases in this section. Overall, the task is the general shape and phrasing because it has such a considerable impact on the rest of the work. The notes fall naturally underneath the mallets as they would on a piano but the brisk tempo adds a further dimension to the technique required. The fact that the vibraphone and piano are in unison is a challenge in itself to any advanced performer, and occasionally some ensemble expectations can be compromised. Psathas is renowned for composing rhythmic patterns in awkward intervals, as observed in Fig. 35.



Figure 35: This bar shows a challenging unison rhythm between the vibraphone and piano. (Source: Bar 7, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

The mallet selection for the vibraphone's introduction is simple. In choosing Michael Balter green vibraphone mallets (higher degree of hardness), a hard staccato tone is achieved with the extremities of the dynamics that Psathas requires. Here the mallet selection needs to convey a broad range of dynamics using the same set of mallets. This is difficult on the vibraphone because the metal is not as forgiving in its resonance and therefore is a test in controlling the hard mallets to play softly. It is not an alternative to use softer mallets because they are unable to respond when a loud

dynamic is required. A further disadvantage is that the mallet yarn can disintegrate under continual hard playing. (see Fig. 36)



Figure 36: A shredded and normal Balter mallet

4.3 Section - A

On a number of occasions canons are used between the piano and the mallet keyboards. Section A begins with a canon in the marimba and piano parts at the same level of intensity that Psathas used in the introduction Fig. 37.



Figure 37: The canon in section A. (Source: Bar 25-27, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

Throughout, there are quick and short changes between marimba and vibraphone. This is a challenge because the two instruments have a different attack and bar width. Where the marimba has wide bars and leeway for movement, the vibraphone is more constricted when you play higher on the instrument. This section takes the work to the next level by adding more rhythmical contrast to the motifs stated in the first section. Similarly, rhythmical phrasing occurs with changes to the accents and articulation. Here Psathas incorporates the idea between the exchanges of the two instruments, which do not occur in the introduction: Fig. 38.



Figure 38: An example of the quick change of instruments at bar 35. (Source: Bar 35-38, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

Unlike the first section, which featured unison rhythms, this section features rhythms that follow on from each other. Once the canon starts, each part has to be accurate otherwise the continuity the composer intends will not occur. This is greatest challenge of not only this section but also the entire work, with both musicians having to perform each rhythm accurately so the puzzle fits together.

With minimal change time between the first and second sections, it is impossible to change mallets. This means at the start that I have to play a marimba canon with vibraphone mallets. Ideally, this would not be a good strategy due to the hard and harsher sound of vibraphone mallets on wood (see Fig. 38). In this case, the dynamic contrasting Psathas has written helps to offset the tone resulting from the hard mallets. Ghosting the unaccented notes and bringing to the fore the accented

ones achieves this⁵⁰. In so doing, the natural shape of the themes is present, similar to my suggestion from the introduction where Psathas has written too many *fp* markings with accents. The groove stated in the first section repeats back as the canon engages both musicians.

4.4 Section - B and C

This is the first occasion in the work where the percussionist has to play both instruments simultaneously, and it is confronting in many ways. The first noticeable element of this section is the consistently moving piano part that accompanies short rhythmic outbursts from the marimba and vibraphone: it opens with a piano solo playing a defined rhythmic role, signalling the mallet instruments to join in. Here Psathas uses an adaption of the original themes from the opening two sections. The piano fills inside the voices while the mallet instruments create a contrast in octaves, instruments, accents and dynamics: Fig. 39.

⁵⁰ The term “ghosting notes” means that the performer draws more dynamic attention to accents by playing the unaccented notes softer, or ghosting them.

The image shows a page of musical notation for a multi-instrument section. At the top left, a circled letter 'B' is present. The score is divided into two systems. The first system contains staves for Violoncello (Vb) and Piano (Pn). The Vb staff has a circled 'B' above it and a dynamic marking of *sfz*. The Pn staff has a dynamic marking of *f*. The second system contains staves for Maracas (Mar), Violoncello (Vb), and Piano (Pn). The Mar staff has a dynamic marking of *f* and a note with a 'p' (pedal) marking. The Vb staff has a dynamic marking of *f*. The Pn staff has a dynamic marking of *f mp* and a tempo marking of *argato*. The score includes various musical notations such as notes, rests, and dynamic markings.

Figure 39: An example of the rhythmical piano line accompanying the multi instrument section. (Source: Bar 40-45, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

Most percussionists find themselves performing on instruments in multiple setups, but it is rare for a percussionist to play two instruments placed diametrically opposed. Orchestral percussionists often play on multiple mallet instruments, but when the music calls for two instruments at the same time there is usually a second player to perform one of the parts. Psathas has taken this concept and made it a visual and aural experience, as it looks impressive to the audience in performance. It is remarkable to think Psathas's instruction suggests only using two mallets (not four) to perform this unison part. This is seen in Fig. 39 with the picture of two shaded mallet figures. Even at this suggestion, the prescribed tempo Psathas has written would have been easier to perform with four mallets because you have more options performing the larger intervals.

One of the toughest concepts to overcome here when playing two instruments at once would be when the left hand is performing higher than that of the right, like playing a piano with hands crossed over one another. (see Fig. 40)



Figure 40: The V shape layout of *Happy Tachyons*

Section C consists of three bars and follows from the previous section. In a quasi-gamelan style, the vibraphone plays a strong melodic figure with a pounding crotchet bass line on from the marimba. As quite often found in marimba works, Psathas breaks away from this fast paced approach in the previous section to a short and melodic passage linking the two sections. This again is challenging because the marimba and bass are coming from the right hand at the lower end of the instrument compared to the melodic line starting on the highest note of the vibraphone. (see Fig. 41)



Figure 41: This section features a quasi-gamelan feel with the melody coming out of the left hand on the vibraphone. (Source: Bar 55-57, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

A technical consideration in these two sections is the bar width and the level between intervals on the instrument. Where the left hand is playing in a high range with narrower bars spaced closely together, the right hand is playing on wider bars spaced further apart. This happens because the higher the instrument, the smaller the bar; whereas the lower the instrument the wider the bar. This is a test because there is no universal positioning of the mallets that works on both instruments because of the bar dimension differences: see Appendix 2.

In playing this section with the Burton grip it is easier to move quickly between intervals and to provide the articulation from each stroke. It is imperative that the tempo is maintained throughout the section, since the reliability of the Burton grip is the preferred option over the Stevens grip because of the sturdiness of the position of the wrists: see Appendix 3. Percussionists argue that the Stevens grip has more power because of the fingers and the piston stroke. This would not work in this section because of the inconsistent intervals and the importance of each mallet having the same attack and sound. The strength of the Burton grip lets you move

quickly between mallets with the flick of the wrist, resulting in greater accuracy, especially with the higher notes. Although a point of conjecture, I believe there is a strong case for why I opt to perform with the Burton grip because the role of the wrist in this grip is superior compared with the Stevens for this type of repertoire.

There are multiple approaches to how you would learn these two sections; either it is learning the parts separately and combining them or learning them concurrently. I believe the easiest way to learn this section is to examine and practice both parts at the same time because this brings all the troubling factors together. You can compare bar width and interval changes on both instruments instead of learning the sections individually and addressing the changing bar distance and intervals latter on. Alternatively, you could then go to the parts separately, refining the articulation and dynamics. Psathas wants the vibraphone played in this section with no pedal down, meaning the notes are unsustained with minimal resonance. This is an advantageous blessing because if you make a mistake and hit a wrong note the resonance does not repeat the discrepancy.

By playing this section with the Michael Balter mallets the player obtains a cleaner attack from both instruments; however, this causes problems on the lower end of the marimba. Since the lower keys of the marimba are thin and delicate it is important you do not hit them with the same power as the vibraphone. This is a challenge when your hands are playing contrasting intensity levels with the Burton Grip, and extended hours of practice is the only way to address this issue. (see Fig. 42)



Figure 42: This example demonstrates the solid approach to the Burton Grip

4.5 Section - D

This section is straightforward in a work that moves around rapidly and suddenly, and can be learnt in the same process as most standard percussion repertoire. The D section is based on a vibraphone solo with small and rhythmical interjections from the piano accompaniment. The main challenge here for the vibraphone and piano is keeping the pulse while maintaining a strong sense of ensemble. This becomes progressively harder as the section moves on when more notes are introduced into the piano part. (see Fig. 43)



Figure 43: End of section D. (Source: Bar 70-71, *Happy Tachyons*. Promethean Editions, John Psathas 1996)



Figure 44: Start of Section D

Throughout this work Psathas employs semi-quaver triplets in both sudden and long bursts, with Section D highlighting the differences in both of these methods. The tachyon particles are known to burst around at different speeds, and by placing semi-quaver triplets inside a normal semi-quaver figure the sense of propulsion occurs. This is evident in the second bar (Fig. 44), as the vibraphone escalates to the highest note on the instrument. This small motif is the centre of attention and by mastering the rhythmical context it is possible to realise every aspect with minimal trouble.

Unquestionably, this section should be played with Michael Balter mallets because it is essentially a solo for the vibraphone. These mallets make it possible to keep to the articulation indicated by Psathas. This is the principal reason why the previous section is played with the chosen mallets. There is no time to change between sections, and therefore it is important for me to adjust my technique so that when I am playing the solo vibraphone part all the mallets are consistent in sound.

4.6 Section - E

With the idea of a tachyon particle ‘bursting and flying’ around the rehearsal room, this section is a great example of how contrasting rhythmic values can create emotion. When you look at the score, being mindful that a particle is faster than light, not only can you hear it moving but also you can see it on the music (Fig. 45). In this case, any triplet occurring would represent the tachyon.

Throughout this section the triplets are passed between the mallets and the piano and sometimes placed against each other, creating a tachyon sensation. One of the results of the learning strategies is that rhythms have to be metonymically accurate, especially when you have figures like Bar No. 80-81 in Fig. 45.

The image shows a musical score for measures 80 and 81. It consists of three staves: a single treble clef staff at the top, and a grand staff (treble and bass clefs) below. The top staff contains a complex melodic line with many triplets and sixteenth notes. The grand staff below contains piano accompaniment, also featuring triplets and sixteenth notes. The score is marked with measure numbers 80 and 81. There are various musical notations such as accents, slurs, and dynamic markings throughout the piece.

Figure 45: Bar 80 and 81 in section E. (Source: Bar 80-81, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

In the same figure, observe how the composer aligns the quaver triplets with every second semi-quaver triplet in the vibraphone part. Learning this section is important rhythmically because this two-into-one feel needs to be accurate, creating a feeling of urgency and speed. A challenge here for the pianist is to ensure that the semi-quavers after the first two beats of Bar No. 80 are correct. A feeling of speed develops as the notes are increased.

It is easier to achieve on the vibraphone what Psathas requires in the decreased dynamic by half-peddalling this section. Half-peddalling means the pedal that controls the level of resonance of the instrument is between fully extended and closed, letting the notes resonate a short but reasonable duration of sound. As the section moves towards a climax, both performers execute unison descending runs on their instruments (Fig. 46). In fully extending the vibraphone pedal the sound swells and intensifies, creating the atmosphere drawing to a close. It is at the discretion of the percussionist to extend the pedal or leave it half down; either way, it alters the mood of the section.



Figure 46: Unison ending to section E. (Source: Bar 85-87, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

As this section only uses the vibraphone, it is better to remain with the Balter mallets. With the use of the pedal and the hard attack of the mallets it is manageable to control the dynamic of the ensemble. This is important because the *pp* dynamic could easily overbalance the piano when the pedal is not used correctly.

4.7 Section - F

This section is essentially the same as B and C, with the percussionist performing on both instruments. There is minimal difference in this section and the same problems occur. Through using the rehearsal technique of learning both parts at the same time, the percussionist can easily resolve the issues of playing on two completely different instruments.



Figure 47: Section F is similar to B and C with the multiple instrument motifs. (Source: Bar 88-89, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

Even though this section is very similar to another, there are new intervals that need to be learned. The technique of using four mallets makes this section more practicable to play than using Psathas's idea of two. The one difference making this section slightly harder is that some of the intervals come at a faster rate than the statement seen in Fig. 39. An example of this can be seen in Fig. 47 on beat 3. Commonly in the first unison section there is at least a quaver rest inserted between the rhythms, whereas in this example there is a semi-quaver rest instead (Fig. 47). This shows how the mallets need to be positioned appropriately because the bar width and interval distance can hinder the execution of faster rhythms.

This unison writing discontinues two bars before the end, where the percussionist moves to a solo vibraphone figure. As in section E, the importance of the accuracy in the triplets is vital between these two sections. In Section G it is marked at *Molto animato: ecstatically*, and therefore these two bars are crucial in setting up this change.

4.8 Section - G

This section is reasonably short in the overall scheme, as it consists of only seven bars. There is no similarity in both parts throughout this section, as both instruments are providing a strong rhythmic impetus. Most of the music up to this point has a similarity between both parts but Psathas has departed from here, linking Sections F and H.

The piano part in this section follows a chordal groove that the vibraphone can lightly sit on. With the section being marked as *Molto Animato* it is important that the pianist follows the accented patterns, as it is an accompaniment to the fast-paced vibraphone solo: Fig. 48.



Figure 48: An example of the piano part. (Source: Bar 107-108, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

Observing the piano part on its own, it is clear to see why it should play a strong rhythmic character (Fig. 48). In this instance the vibraphone follows the tachyon idea of darting around a solid state that, in this case, is the piano (Fig. 48).

Figure 49: Vibraphone part on top of piano. (Source: Bar 107-108, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

Fig. 49 shows the importance of how a rhythmically stable piano accompaniment underpins the pulse for the animated vibraphone solo. Psathas has instructed that the vibraphone part needs to be *legato-like* in its nature; that is an incongruous concept considering which notes need to be accented. A way to achieve this *legato* effect is to depress the pedal on the vibraphone between the accented notes. There are other ways this can be done but it can only work when the pianist is accenting their parts as written because the accented notes coincide frequently across both parts.

Overall this section paints an image of exploding tachyons with beams of light darting in every which way. The triplet runs in the vibraphone are broken up by lone quavers that abruptly stop the animated sound. When all these parts are integrated in this section, it serves as an effective link between the two sections.

4.9 Section - H

Section H is considered the marimba's main focus in the work, analogous to the vibraphone in section D. A relatively long section, the writing here is similar to other virtuosic marimba works like *Velocities* by Joseph Schwanter and *Time for Marimba* by Minoru Miki. All the elements of virtuosic marimba playing style are present in this

section, such as large octave leaps, multifaceted rhythms and complex harmonic structure through these 19 bars. Throughout the section, the marimba recapitulates various themes from the start as well as developing them as the basis for the marimba part. Psathas's well-known triplets make the occasional entry; however, the contrast of hearing them on the marimba is different from that of the vibraphone. The piano complements the marimba throughout, as it has in the previous sections, with difficult rhythms prevailing in both a unison and singular style.

This is idiosyncratic writing for the marimba; it is as if it has been planned to give the performer a 'mental break' in a demanding work. One of the reasons it is written so well is because the notes sit comfortably using the four mallets. This style of writing is what Psathas has developed from composing for percussionists and understanding the medium.



Figure 50: An example showing sticking markings. (Source: Bar 114, *Happy Tachyons*. Prometheus Editions, John Psathas 1996)

Fig. 50 is an example of a common sticking pattern used to play this small passage from this section. The mallets are labelled 1, 2, 3, and 4, starting with 1 on your left

hand and 4 being the final mallet in your right. This is an example of a passage written with the four-mallet technique in mind, and Psathas based most of this section on this idea. The simplest way of learning this section is to go through and indicate the sticking above each passage so the transition is smooth when the tempo is raised as per score.

A problem with this section is the sudden instrument change because there is little time to switch mallets from the vibraphone, resulting in the marimba part being played with the Balter vibraphone mallets. This has pros and cons with the main concern being the hard sound of the mallets on a wood bar. A solution to overcome this is to bring out the accented notes and drop the unaccented ones down a dynamic.

4.10 Section - I

It is safe to say this section gives the indication of it coming to its conclusion. The reason why you can make this assumption is because there is rapid change between instruments: in this case, roughly every three bars or where the part alternates from vibraphone to marimba. There is not the same intensity present in previous sections, partly due to the lack of the well-known Psathas triplet figure. With the tempo easing back to a *poco meno moso*, the section explores the relationship between the timbres of the instruments instead of the power of speed and accents. The dynamics never rise above *mp*, showing that the tachyon is resting or never existed in the first place, being a hypothetical particle. The intensity leaves the sporadic octave leaps as both mallets and piano carefully make their way up in step shapes, never venturing beyond a space of a third: Fig.51.



Figure 51: One of the more relaxed sections. (Source: Bar 145-147, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

To achieve the softer approach required for this section, a change of mallets is needed. Unlike other sections, there is an opportunity to change to a softer set of mallets, as indicated by Psathas with the marking in Fig.52.



Figure 52: The small white mallets marked on the score mean a softer sound is needed. (Source: Bar 131, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

One aspect that helps you understand how quiet and subtle this section should be is when Psathas now gives enough time for a mallet change, unlike other sections. Using softer mallets and a reduced tempo, it is possible to perform the constant changes between marimba and vibraphone to bring out the timbral contrasts.

A consideration arising with softer mallets is that the performer has to work harder to bring out the accents, even though they are not as predominant here as in the rest of

the work. Psathas makes this task easier because most of the accents occur in the loudest points as seen in Fig. 53.

The image shows a musical score for three instruments: Marimba (Mar), Vibraphone (Vb), and Piano (Pn). The tempo is marked 'Poco meno mosso' and the performance style is 'molto legato'. The score is divided into three measures. The Marimba part starts with a circled '1' and a measure number '132'. It features a crescendo from *ppp* to *mp* and back to *ppp*, with accents on the loudest parts. The Vibraphone part is mostly silent, with a *ppp* note at the end. The Piano part starts with a *p* dynamic, followed by a crescendo to *ppp* and back to *mp*, with accents on the loudest parts. The score includes triplets and a 'una corda' instruction for the piano.

Figure 53: Bar 132 shows how accents only occur in the loudest parts of the crescendo. (Source: Bar 132-134, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

The performer should be aware of the inherent dynamic differences resulting from the material, as in metal for the vibraphone and wood for the marimba. Being aware of this, the change should not be too dramatic but rather develop the melodic and *legato* character. This would be the primary issue in this section because the connection of all the instruments should be smooth between the two.

4.11 Section - J

Section J is all about slowing down even further. Unquestionably the most difficult section of the work, Section J looks sparse on the score compared to the other sections, as observed in Fig. 54, although, despite having fewer notes, it is important that every note is correctly placed. Written above the mallet line, Psathas writes 'Connect with the Piano'. The music follows a call and response pattern; therefore it is significant for the mallet part to take over from the piano because it should be

continuous. Mindful of this indication, it is important that both the pianist and the percussionist listen closely and ensure their entries are precise. Psathas understands that connecting the marimba to the piano would be easier than trying with a vibraphone because the warmth of the marimba is closer to the timbre of a soft piano: Fig. 54.

The image displays a musical score for marimba and piano, spanning measures 160 to 168. It is organized into three systems. Each system consists of two staves: the upper staff is for the marimba (labeled 'Mar') and the lower staff is for the piano (labeled 'Pn'). The marimba part features complex rhythmic patterns with triplets and slurs, while the piano part provides a more melodic and harmonic accompaniment. Dynamic markings like 'mp' (mezzo-piano) and 'pp' (pianissimo) are present throughout the score. The notation includes various note values, rests, and articulation marks.

Figure 54: An example showing the connective music between the marimba and the piano. (Source: Bar 160-168, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

Looking at the music of this section you can see the piano plays inside the notes of the marimba and the marimba plays inside the notes of the piano: a daunting ensemble task for any musician. This difficulty is compounded further as the tempo decreases slightly once again. After playing incredibly fast passages in the first few sections, the players now have to slow down to what is the slowest section of the piece with minimal accents and dynamic range, notes and tempo. This stark contrast

to the rest of this piece is best approached with each part rehearsed with a metronome and then continuing to work up from a slow tempo.

This is the softest section and it is important to switch mallets to the softest type of mallet, producing a hymn-like sound (see Fig. 55). Slowing down the tempo even further, Psathas gives time for another mallet change with a soft, loosely bound chorale mallet evoking the desired effect.



Figure 55: The three levels of mallets used in *Happy Tachyons*

This is the toughest section of the work because of its tempo, lack of accents, and the ensemble role of the two instruments. It contains the biggest contrast within the work and there is no time to drop focus because this section begins the lead up to the final two sections of this work.

4.12 Section - K

The penultimate section is broken up into two parts. The first part of the two has the same approach as Section I, with consistent three-bar changes between the marimba and vibraphone. It opens with a *poco piu mosso* allowing the familiar tempo from the start return. The second part features a *poco accelerando* over four bars leading into the final section and the *Tempo primo*.

With the texture becoming more frenetic, the first part of Section K is essentially inverted parts of Section I. The use of crescendos and dynamic markings maintains the intensity until the *poco accelerando* is reached. Unlike Section I, the dynamic rises to its loudest at *mf* instead of *mp*, leading to a climax at bar 192 Fig. 56.

The image displays a musical score for Section K, spanning measures 184 to 192. It is arranged for three instruments: Vibraphone (Vb), Piano (Pn), and Marimba (Mar). The score is divided into three systems. The first system (measures 184-186) shows the Vb and Pn parts with dynamic markings of *mp*, *ppp*, and *ppp*. The second system (measures 187-189) continues the Vb and Pn parts with dynamic markings of *mf*, *ppp*, *pp*, and *mf*. The third system (measures 190-192) introduces the Marimba part, with dynamic markings of *pp*, *f*, and *ff*. The Marimba part is marked with *Poco accelerando* and *ff*. The Piano part in the third system also has dynamic markings of *f*, *p*, and *ff*. The score concludes with a *tre corde* marking and a double bar line.

Figure 56: Section K is similar to I until the build up into the accelerando. (Source: Bar 184-192, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

The softest section of this work is at Section J, however, by the time the *poco accelerando* arrives at K, the loudest and busiest section of the work now occurs. As Psathas requires a mallet change at the *poco accelerando*, it is important that the mallets are put down and the new ones picked up as quickly as possible, since the tempo starts to increase. With the triplets appearing as the work builds intensity, a need for the Balter mallets is essential leading to the *Tempo primo*.

To achieve the mallet change before the *poco accelerando* is difficult because there is minimal time to swap the mallets. This is crucial because the tempo is increasing to the final section. With most of the music ideas in this section based on previous sections, preparing this section is relatively easy compared with the other sections.

4.13 Section - L

There is a sense of arrival leading up to the *Tempo primo*. All the rhythmical values Psathas has utilised in this work, such as the semi-quaver triplets, the notes inside notes and the broad ranges of accents, all appear in the finale. Like the tachyon particle, there is a sudden pause and an almighty interjection that sets off a chain reaction not too dissimilar to the first bar of section L. Written to be performed on vibraphone or marimba, Psathas hints that the vibraphone fulfils the needs of the work better than the marimba. This suggestion is achieved by placing the marimba part in a smaller notation compared to the vibraphone as shown in Fig. 57.

Figure 57: A section of the *Tempo primo* at L. (Source: Bar 221-224, *Happy Tachyons*. Prometheus Editions, John Psathas 1996)

Overall, this section is straightforward because it is fast, full of notes, full of accents and full of subtle *crescendos*. The piano is playing the same part in the right hand as the vibraphone, while the driving role that keeps the tempo maintained is in the left hand bass line because it revolves around finger pedalling⁵¹. The difficult bass line is heavily accented and written in an approach that was developed by Psathas. The extensive use of syncopation is evident in the dotted quavers and semi-quavers, while the vibraphone bounces around like a *Happy Tachyon*.

The difficult small three-note pattern (second beat of Fig. 58) heard before is assisted with sticking to help achieve the tempo Psathas requires.

⁵¹ The indication of finger pedaling in the piano part is relevant from bar 196 to the end. This relates to the various C-octaves in the left hand. The principle is that the octave forms a continuum of sound by always sustaining either the upper or lower note with thumb or fifth finger until it appears again. This way the left will be sustained as if it is pedaled and the right hand melodies will not become blurred.



Figure 58: One of the challenging stickings required to perform the *tempo primo*. (Source: Bar 217-218, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

This small three-note motif is the foundation for the conclusion. The above sticking is the only way to play the ending at the prescribed tempo. The coda also uses a similar motif that is extended to semi-quaver triplets across the range of the vibraphone: Fig. 59.



Figure 59: The ending of *Happy Tachyons*. (Source: Bar 223-227, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

The final challenge of the coda is ensuring that all the note patterns at tempo are correct. The best approach is firstly to learn the work at MM = 60 and build slowly to MM =110 at 10-beat increments.

The coda is exceptionally challenging because it features all the hardest concepts, minus playing two instruments simultaneously. This ending builds over two sections leading to the climax of the work. The concept of a particle being faster than light is present as the vibraphone dances over the range at virtuosic speeds. Psathas's triplet idea spirits into overdrive in the coda. The musician is extended on an ensemble level connecting the two unison parts with the consistent bass line. In *Happy Tachyons*, Psathas takes the audience and the performers through a journey of a tachyon particle starting up and moving around at fast speeds, as it slowly disappears and returns with a bang and travels faster than the speed of light. Unconventional techniques such as performing on two instruments at the same time take the audience and performer into new realms as percussionists explore preparation techniques they would otherwise not necessarily experience.

4.14 A Summary of the Performance of *Happy Tachyons* with examples demonstrated in DVD No.2

The Australian premiere of *Happy Tachyons* took place on 16th August 2012 at the University of Newcastle. It was the featured work of my third recital entitled FLASH. This concert featured virtuosic music for marimba, timpani, vibraphone, and a saxophone marimba duet. The title FLASH was chosen because the repertoire would feature fast, challenging music that covered multiple styles of percussion repertoire.

As I stated earlier, *Happy Tachyons* is clearly written in nine sections with each having a different character and all challenging for the performer. The second half of this chapter analyses the performance and discusses what was successful and what was not, looking at how the preparation assisted this. Cross-references to the DVD support the comments in the discussion. Ideally it is best to first watch the performance in its entirety and then to follow the comments with the excerpts individually viewed.

4.15 Piano vs Digital Track

Originally written for one percussionist and a pianist, the piano part does not follow a traditional accompaniment role⁵². *Happy Tachyons* features solos from the piano and the percussion as well as parts where neither players have the same motifs: Fig. 60.



Figure 60: Unison section between instruments. (Source: Bar 7, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

In this example of the vibraphone (top) and piano (bottom) in Fig. 60, you can see how important the rhythmical accuracy is in order to achieve the ensemble of both parts. It is imperative these rhythms are accurate every time, something both the

⁵² Most music composed for marimba/vibraphone and piano is concertos where the orchestral accompaniment has been re-arranged for accompanying piano. *Happy Tachyons* is a great example of a work that takes this traditional barrier away.

pianist and the percussionist find challenging. When preparing this work I approached several pianists to collaborate with me, with each time getting the similar response: they found the rhythmical complexity is not only challenging but would require months of preparation before the parts could be rehearsed together. One pianist decided he would be able to learn the music and approach it from an accompaniment role, something with which I raised caution. After leaving the pianist with the music for three months it was decided that a workshop approach would be the way to start the rehearsal phase. This workshop ended abruptly because he had not prepared the music and thought it would be easier than it was. An illustration of this occurred in Fig. 60 when the pianist wanted to take a short breath before we approached this rhythm together; something I believed would compromise the style of the music and the composer's interests.

Now left without a pianist who could perform the work in my time frame, I considered other options to make *Happy Tachyons* work. Similar to the other works in this research, I prepared the percussion part using a digital track, which helped me prepare quicker and minimising the time when I would need to bring in other musicians. In the case of *Happy Tachyons* the rehearsal piano backing track is not intended for use at performance level; however, on discussing this with sound engineers, it is possible to enhance the track through a sequencing program with the ability to manipulate the tempos and note lengths as required, giving me a custom piano track.

With the digital track being constant, further changes required editing through the sequencing program and adjustments made. Despite the advantages already

outlined here there is, as with all technology, the risk of it failing, adding further anxiety levels for me as the performer.

I sent the track to the composer for his approval; he agreed it would be the best option for he encountered similar issues when it had its first performance. The audience enjoyed the digital component and said that it matched the percussion instruments; after all, the sampled piano on the backing track was a Bosendorfer grand⁵³.

4.16 Section - Introduction

The first section of *Happy Tachyons* is a unison section stating the main motif that the work is based on: Fig. 61.

⁵³ Bosendorfer pianos are considered one of the best piano-making brands in the world, similar to Selmer and its Mark V1 saxophone. The Vienna review says that Ignaz Bosendorfer's pianos "became known for their unique sound and extreme durability and resistance, even withholding the powerful playing style of the young Franz Liszt, known for ruining many an instrument". "Grand Finale at Bosendorfer", <http://www.viennareview.net/news/front-page/grand-finale-at-bosendorfer>, accessed 12/12/2012

HAPPY TACHYONS TO EVELYN GLENNIE

John Psathas

The image displays a musical score for the piece "Happy Tachyons to Evelyn Glennie" by John Psathas. The score is in 4/4 time and begins at measure 142. It features three staves: Marimba, Vibraphone, and Piano. The Marimba part is mostly silent, indicated by a double bar line. The Vibraphone and Piano parts play in unison, with the Piano part marked "Legato". The music is characterized by a complex, rhythmic pattern of eighth and sixteenth notes. Dynamics are marked with *p*, *f*, *fp*, and *f*. The score is divided into two systems, with a double bar line and repeat sign at the beginning of the second system. The second system includes a Vibraphone (Vb) part and a Piano (Pn) part, both playing in unison with the Piano part of the first system. The dynamics continue to be marked with *p*, *f*, *fp*, and *f*.

Figure 61: Opening unison between piano and vibraphone. (Source: Bar 1-6, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

This is the first section I endeavoured to rehearse with a pianist, as it is in unison. By the very nature of the music, in rehearsing this section with a pianist it was difficult to achieve the rhythmical accuracy needed. Substituting a digital piano track made it easier to achieve the rhythmical accuracy. A different level of pressure on my part now existed because it had no flexibility and would be as rigid as the computer track.

Psathas requested a complex set of dynamics that had to be observed by the performers (see Fig. 62). By creating this digital track it is easy to add a dynamic alteration to individual notes, something more difficult on an acoustic instrument. After reviewing the recordings I could have performed these dynamic varieties better, but it came back down to digital accuracy against a living breathing performer who makes decisions as the performance unfolds: Fig. 62.



Figure 62: An example of the overbearing dynamic markings. (Source: Bar 6, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

Overall, the recordings demonstrated how I played this introductory section of *Happy Tachyons* with a close observation to rhythmical and dynamic accuracy [DVD: Chapter 1].

4.17 Section - A

This section is based on the original theme from the introduction, with the exception of it being written in a canon between the piano and the marimba: Fig. 63.



Figure 63: Canon in section A. (Source: Bar 25-27, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

In my performance of this work, it was possible to maintain the rhythmical role of the marimba because it always comes a crotchet beat after the piano. Unlike the

previous section, where the vibraphone and piano were in unison, the inclusion of the crotchet rest makes it easy to preserve the canon in the two parts (see Fig. 63).

A feature of this section is the alternation between the marimba and the vibraphone. In the first change, the marimba finishes and within three crotchets beats the vibraphone enters. In rehearsing this work, one aspect I constantly practiced is the logistical moves from one instrument to the other. With the composer wanting a change in timbre, I had to accommodate the difficulties moving between the key width of both instruments while keeping in mind the articulation of notes and the composer's wishes: Fig. 64.



Figure 64: An example of the fast instrument change that has to occur. (Source: Bar 34-35, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

In the performance, this changeover between instruments is a highlight, as this occurs numerous times. It provides another dimension to the visual perspective. With the decision of keeping the same mallets, I noticed the vibraphone mallets on the marimba gave more contrast than if I incorporated a mallet change [DVD: Chapter 2].



Figure 65: The green Balter mallet I used universally on both instruments

4.18 Section - B and C

These two sections are the first time where I play both the vibraphone and marimba concurrently. The digital piano track makes it easier because the tempo is consistent throughout this section: Fig. 66.



Figure 66: I was happy with how I could easily sit this unison vibraphone marimba part on top of the digital piano. (Source: Bar 55-57, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

Some of the positive feedback I received from the audience, as well as percussionists who watched the video later, is how successful this section is from both a visual and aural sense. I put this down to diligent and careful preparation leading up to the performance. This section is one of the most enjoyable to play in the concert because I knew it was well prepared and my decisions in rehearsing it with multiple pairs of mallets and techniques makes this section flow easily [DVD: Chapter 3].

4.19 Section - D

Section D is a vibraphone solo with quick chordal interjections from the piano. In preparing this with a digital track it is possible to coordinate the large numbers of vibraphone notes with the small amount of piano notes. If I had performed this with a live pianist this could have been a challenge because the pulse is not so obvious from the many 'off-beat' accents that would ultimately lead to ensemble insecurities:

Fig. 67.

The image shows a musical score for Section D, consisting of four staves. The top staff is a treble clef staff with a circled 'D' above it. The second staff is a bass clef staff. The third staff is a treble clef staff with a 'Vibraphone' label above it, containing a complex melodic line with many notes and accents. The fourth staff is a bass clef staff with a 'Piano' label above it, containing sparse chordal interjections. Dynamics include *ffz*, *f*, and *sfz*. There are also some markings like 'argato' and '8'

Figure 67: Vibraphone solo with sudden piano notes. (Source: Bar 58-60, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

After studying the performance recording I noticed this section contained the most discrepancies. I believe this happened because I now had more freedom and not the rhythmical constraints that come with a part that has more notations as seen in Fig. 67. The main fault here did not come from wrong notes, timing or accents, but more of the general shape pertaining to the descending and ascending triplets. These similar patterns occur at the start and at the end of the work but in this section I did not draw too much dynamic attention to them, whereas I should have. However, I am extremely pleased with the accuracy of my semi-quaver triplets. In all of Psathas's music these types of triplet patterns play an almost robotic role [DVD: Chapter 4].

4.20 Section - E

Section E is a continuation of Section D, and by this I mean the musical direction and phrasing are similar; however, there is a difference in the approach to dynamics. It begins with a *pianissimo* and gradually builds for twelve bars where a fast descending run prepares the vibraphone for the next section: Fig. 68.

Figure 68: End of Section E. (Source: Bar 85-87, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

In this section, the polyrhythms go against the instruments with a contrast occurring between the semi-quaver triplets and quaver triplets in the above example. It is easy to draw out and play precisely these polyrhythms on the vibraphone against the digital piano track. In this performance I am pleased with how this section and the phrases were executed.

In the performance, I decided not to place the vibraphone pedal down through these notes. If I use the pedal in this section, the sound would be blurred and therefore achieve no clarity between the piano and the vibraphone. In my original preparation I decided I would half-mute the notes but at the last moment I decided to mute them all, a decision I am pleased with after reviewing the recording [DVD: Chapter 5].

4.21 Section - F

The image shows a musical score for Section F, bars 88-89. It consists of four staves: two for the vibraphone (top two staves) and two for the marimba (bottom two staves). The vibraphone part starts with a rest in bar 88 and begins in bar 89 with a series of eighth notes, marked with 'sfz' and 'f'. The marimba part also starts with a rest in bar 88 and begins in bar 89 with a series of eighth notes, marked with 'sfz' and 'f'. A circled 'F' is placed above the first staff in bar 89. The score includes various musical notations such as accents, slurs, and dynamic markings.

Figure 69: The start of figure F. (Source: Bar 88-89, Happy Tachyons. Promethean Editions, John Psathas 1996)

The example in Fig. 69 shows the vibraphone and marimba being played together. This section is the same as B and C with only a few harmonic changes in the passages, but generally follows the same idea. As stated, Sections B and C are where I prepared and rehearsed more than any of the other sections because of the unique techniques required to play both instruments. In the performance it is musically rewarding and again a highlight for the audience and myself [DVD: Chapter 6].

4.22 Section - G

Section G is relatively short by comparison to the larger sections in the work, with the feel being *Molto animato: ecstatically*. This animated section is an example of a situation where both instruments have contrasting ideas and roles. In this case, the piano and the vibraphone both play a rhythmical role instead of one playing the accompaniment and the other sitting on top. Again, by having this digital piano it makes it possible to place the extremely fast vibraphone part against a constant

accurate piano. The rhythmical precision of the vibraphone in this performance is accurate to the metronome and together with the digital piano: Fig. 70.



Figure 70: An example of the two contrasting parts in G. (Source: Bar 107-108, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

In the performance I have to be careful to not play louder than the digital piano, but in this section I could play softer and not affect the balance of sound between the acoustic and the digital. Where this section could be played softer, the rhythmical contrast is still to a high standard and pleasing to me after I analysed the recording [DVD: Chapter 7].

4.23 Section - H

Where section D is a vibraphone solo, this section could be considered the marimba solo. The writing in this section demonstrates Psathas's idiosyncratic knowledge of writing for marimba, with most of the passages sitting comfortably under the four mallets. A challenge for composers who do not understand marimba technique is to ensure the phrases sit comfortably under four independent mallets, particularly in difficult passages: Fig. 71.

The image shows a musical score for Marimba (Mar) and Piano (Pn). The Marimba part is on the top two staves, and the Piano part is on the bottom two staves. The score begins at bar 114. The Marimba part has a sequence of notes with mallet numbers 4, 3, 2, 3, and 2323 written above them. The Piano part has a steady accompaniment with eighth notes and rests. The key signature has one flat (B-flat).

Figure 71: Sticking order of a hard section. (Source: Bar 114, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

In Fig. 71 you can see how there are no extreme jumps between mallets, e.g. 1 to 4. Here, Psathas keeps everything close, such as 4-3-2-3.

When learning this section I am aware of the composer's knowledge of understanding four-mallet writing and therefore making it easy to adjust to an accompaniment. In the performance I am pleased to see how this section featured the marimba, especially following vibraphone solo just prior.

Commonly throughout the piece there is no time to switch between mallets, and with the previous section being a vibraphone feature I have to keep my green Balter vibraphone mallets. In Section H the marimba is scored from middle C to the top of the instrument, meaning there are no low notes. By keeping the vibraphone mallets on the marimba, the bright tone of the instrument projects more easily than if I use

the marimba mallets, a good decision previously adopted in the work [DVD: Chapter 8].

4.24 Section - I

This section has less intensity than the previous ones and draws on the rapid, changing timbre from both the marimba and the vibraphone. In other sections where I need to change between the two instruments quickly, this section has four- and five-bar phrases on each instrument before a change. In preparing this section it is important to ensure I did not carry over the ideas of the marimba to the vibraphone or vice versa. An example of this is pedalling; a feature the marimba does not have. In rehearsing this work I decide to use multiple pedalling on the vibraphone so I could draw out the difference between the semi-quavers and the triplets: Fig. 72.

The image shows a musical score for three staves: marimba (br), vibraphone (b), and marimba (m). The marimba part (br and m) features a series of rapid semi-quaver runs, starting with a dynamic marking of *mp* and transitioning to *ppp*. The vibraphone part (b) features a series of rapid semi-quaver runs, starting with a dynamic marking of *ppp* and transitioning to *mp*. The score includes various rhythmic patterns, including triplets and demi-semi-quavers, and is marked with dynamic changes and pedalling instructions.

Figure 72: Another sudden change between marimba and vibraphone. (Source: Bar 145-147, Happy Tachyons. Promethean Editions, John Psathas 1996)

In Fig. 72 the vibraphone has semi-quavers, triplet figures and demi-semi-quavers. By pedalling throughout this section it gives greater clarity in the music and creates a contrast to the marimba. In the performance I sometimes over pedal due to the dynamic contrast of a digital piano but the overall effect is achieved.

This is the first time where I change mallets from the green Balter vibraphone mallets. Throughout this section I use medium hard marimba mallets that made the marimba sound mellow and warmer. Unfortunately these mallets did not create the same effect on the vibraphone because of the softer wrap of material on the mallet. To overcome this I had to play the vibraphone louder, meaning that some dynamic variety is lost but, with the pedalling concept just discussed, the effect in the performance comes across well.



Figure 73: I used the middle mallet for a mellow tone, as the yarn was more loose

Once again the digital piano track plays a crucial role in maintaining the pulse throughout this section as I swap instruments. On listening to the piano track, I brought out more dynamic variety to match the mallet change, a point to keep in mind for future performances.

On first preparing this section I note how important the changes are between the marimba and vibraphone having a *legato*-like nature, not a sudden intense approach similar to the previous sections. In having this tact it is possible to rehearse and implement this concept and in the performance of this work, I believe, this is why it works so well [DVD: Chapter 9].

4.25 Section - J

In my opinion Section J is the most difficult with the idea of connecting the marimba and piano as one instrument because of the technical aspects, as seen in Fig. 74. The digital piano track does make the process easier because I always knew exactly where the piano would be, something that is important in joining the two instruments. Even though this section drops down in dynamics and intensity, the challenges are still found in the technical rhythms in both the piano and the marimba: Fig. 74.

The image shows a musical score for Marimba (Mar) and Piano (Pn) for measures 160 through 168. The score is arranged in three systems. Each system has a Marimba staff on top and a Piano staff on the bottom. The Marimba part features complex rhythmic patterns with slurs and accents, while the Piano part provides a harmonic accompaniment with similar rhythmic motifs. The notation includes various musical symbols such as slurs, accents, and dynamic markings like 'ppp' at the end of the section.

Figure 74: This section was a challenge in connecting the notes correctly, even with a digital piano. (Source: Bar 160-168, *Happy Tachyons*. Prometheus Editions, John Psathas 1996)

In Fig. 74 you can observe how the marimba fills the rest gaps of the piano, but you could look at it the other way around. Here most pianists who offered to play the work said this is the hardest section to learn due to disjointed style of the music. On preparing this section I learned the marimba part separately with a metronome and progressively added it to the piano track. With having a strong understanding of both parts, it is then easy to realise the composer's intentions when they combine. In using a softer mallet I could match the timbre of the marimba closer to the warm sound of the digital piano. This decision is affirmed when I listen to the recording.



Figure 75: For this section I used the mallet on the right, which has an even looser yarn, creating a warm chorale effect

As observed in Fig. 69, the chorale mallet is the largest of the three preferred and features two types of yarn-blend, making it similar to the felt used on a piano hammer and thus creating the soft sonority when both instruments play together.

All the elements came together successfully because of the secure preparation. It led to a strong ensemble connecting both the rhythmical and musical aspects. This is one of the highlights of the performance [DVD: Chapter 10].

4.26 Section - K

Section K can be broken into two parts, with the first part being similar to Section I. The second part is a connection to the final *Tempo primo* and concludes the work. This part gradually builds up after what is created in the softer warmer sonority of the previous section; this is done by an increase of notes, and then followed by faster changes between the instruments and finally a faster accelerated tempo.

The first half of this section has no problems, as it is similar to Section I with having similar ideas. In swapping the chorale mallets back to the marimba mallet, which I use in Section I, it is conceivable to perform this section with the same increasing intensity as I alternate between instruments: Fig. 76.

Figure 76: This example shows the sudden change into the accelerando, a moment when I performed the mallet changes perfectly. (Source: Bar 184-192, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

A test here is when there is a sudden mallet change from the marimba mallets back to the Balter vibraphone mallets. In the above example you can see in the final bar how Psathas draws four coloured-in mallets, indicating the instrument needs to have a hard tight sound. This example shows the minimal time the percussionist has to change mallets, something that changes every time I rehearse this work. What has to happen to be able to change mallets in the right time is to omit several notes leading into the final bar of this example. In this performance I skip about two beats in the bar leading up to the change. This is slower than what I am doing in rehearsals. The strategy I employ slightly earlier than usual is to give that added buffer of security at *Tempo primo* (Crochet = 160). Mentally, *Happy Tachyons* is an

incredibly demanding work, even though it is split into clear divisions. Each section has a change in some form that draws on the concentration of the performer, and this final change is no different.

The second part of this section is only small, six bars in length, gradually building the tempo on the marimba. These six bars are important in setting up the ideas for the final section, the *Tempo primo*. Through these six bars an example of this can be found where the constant rhythmical changes in the marimba part and where semi-quaver triplets are added inside the straight semi-quavers. Psathas likes to use these triplets in a mechanical form, being like a robot inside the straight semi-quavers. After the slow mallet change in this performance, I did not think about how it would affect the rest of the work. Instead, I just engage through these six bars to set up for the *Tempo primo*. I am content in the accuracy of these six bars and how they ultimately set up the final section of the work [DVD: Chapter 11].

4.27 Section - L

If you study *Happy Tachyons* from the beginning to the end, you find it moves from intense to soft, to softer, to a gradual build up and finally an intense section marked as *Tempo primo* or Section L. The simplest way to explain this section is that all the intensity derived from the rest of the work culminates to create these 32 bars of insanity.

Now having performed *Happy Tachyons*, I strongly believe the vibraphone part would be unmanageable to perform with an acoustic pianist because the ensemble has to be precise between the vibraphone and the piano: Fig.77.



Figure 77: The challenging unison ending between the vibraphone and the piano. (Source: Bar 198-201, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

There is a general consensus among the pianists approached that they believe this would take months of preparation to achieve the accuracy required of both the rhythms and the notes. This section is more successful with the digital piano because I could perform the vibraphone part alongside the piano's right hand, since the bass section of the piano assists in maintaining a constant tempo. In my initial discussion with pianists, they commented that they would have to compromise the original part in order for the parts to work. This is a further reason to opt for the use of a digital piano.

This section is straightforward; it is fast, full of notes that are really hard to play, but a rewarding highlight if executed well. The framework of the *Tempo primo* is the semi-quaver triplets, with them coming in different forms throughout this section. Towards the end, the vibraphone has these challenging triplets in the upper register: Fig. 78.



Figure 78: One of the challenging stickings in the work. This is because of the speed the tempo is moving at. (Source: Bar 217, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

In Fig. 78 you can see the triplets and how they are placed inside the bar, as well as the sticking pattern I devised. The challenge of these figures is that you have three notes but they are played with only two mallets, meaning the pattern is never same. This example, for instance, demonstrates how the first triplet begins with the third mallet but the second starts with mallet two. This is a commonly used technique because you need to ensure the strength in your left hand is equal to that of your right hand. By rehearsing this pattern as a preparatory exercise it is possible to build up the stamina required to perform it at the marked tempo: Fig. 79.

The image displays a musical score for the ending of 'Happy Tachyons'. It consists of two systems of staves. The first system (measures 223-228) features a vibraphone part (top two staves) and a piano accompaniment (bottom two staves). The vibraphone part is characterized by continuous triplet runs across the instrument's range, marked with 'fff' (fortissimo) and 'sfz' (sforzando). The piano part mirrors these triplets in the right hand and provides a steady bass line in the left hand. The second system (measures 225-228) shows the continuation of these patterns, with dynamic markings shifting to 'pp' (pianissimo) and 'sfz' towards the end. The score includes various musical notations such as triplets, slurs, and dynamic markings.

Figure 79: The ending of Happy Tachyons. (Source: Bar 223-228, *Happy Tachyons*. Promethean Editions, John Psathas 1996)

In Fig. 79 you can see the final few bars of the coda and how the triplet idea is expanded further. In the previous exercise I discuss using two mallets to perform the triplets, whereas now you can see from this example that it needs to be extended to be able to encompass the range of the vibraphone. After developing the technique in the previous example it is easy to then turn the exercise from the three notes into a run over the full range of the instrument. In taking the piano track and slowing it down it is more manageable to rehearse these fast runs in unison and then slowly increase the tempo, since the right hand of the piano plays exactly the same part as the vibraphone. The audience feedback indicates that I look as though I am just gliding over the top of the keys throughout the *Tempo primo*. This is exactly how I feel when I am performing this *Tempo primo*; I believe I did it with ease and put it

down to my methodical preparation. I use this approach in master classes I give to percussionists, where players tend to take similar figures slowly and then prematurely going straight to a performance tempo, forgetting the middle ground. After hearing the recording, I played this final section with secure rhythm and technique but, more importantly, preserving the musicianship that is central to the performance [DVD: Chapter 12].

Overall this Australian premiere of *Happy Tachyons* was a success in every possible aspect, whether it was the level of musicianship, the rhythmic role, the use of a digital track or the dynamic variety employed. The five months of preparation and lead-up assisted me to shape *Happy Tachyons* into what I wanted while maintaining the integrity Psathas required for the work.

This is the third Psathas work for which I have given first Australian performances and I am beginning now to understand his approach and compositional technique. Even though this was one of his early works incorporating virtuosic percussion technique, there is a further progression and development to his later works such as *Djinn*.

Out of the entire Psathas repertoire I have performed and researched in this exegesis, this is the work that provides me with the greatest level of satisfaction. As my research looks into the approaches and preparation a percussionist develops, *Happy Tachyons* uses multiple techniques percussionists need to use, including ones that are rare. Not only has this work helped me develop as a musician and soloist, it has helped me explore the diverse avenues in the preparation I undertook

before I performed any music. These include areas such as mallet selection, the timbral considerations pertaining to the marimba and vibraphone, working with technology, the rhythmic roles of the instruments and the expansion of uncommon techniques. By taking these approaches and writing how I would prepare such a challenging piece, the process helps me to devise strategies in learning and memorising music that could be embraced by other percussionists.

Happy Tachyons is a remarkable piece of music that will stay in my repertoire for a long time because it explores many innovative concepts. Since performing this work, I have played it several times throughout Australia and the online community with it being well received every time. After the first performance of *Happy Tachyons*, several publishing companies, such as Promethean Editions and Percussion Music Online, have used the online video and audio as examples for the promotion of percussion repertoire⁵⁴. *Happy Tachyons* is a substantial contribution to my repertoire and I have been able to achieve as well as maintain the piece as a result of my methodology I developed when preparing it.

⁵⁴ This recording of *Happy Tachyons* is now the principal example that publishers are using when selling this work. “*Happy Tachyons – Percussion Music Online*”, <http://www.percussionmusiconline.com/7312.shtml>, accessed 15/12/2012

Chapter 5 – Preparing the Music of John Psathas: A Conclusion

One Study One Summary

Djinn Marimba Concerto

Happy Tachyons

5.1 Introduction

One of the greatest and challenging experiences a musician will have is performing music that is written by a composer who is living and writing. Classical musicians often are stereotyped by a broader view of society to only perform music of a deceased composer, with most people thinking that classical music is any type of music written before the 19th century. One of the rare genres inside new classical music is solo percussion repertoire, which has been pioneered over the last 70 years⁵⁵. Not only is this a relatively new form of composition, it embodies some of the most versatile and new techniques in both the delivery and performance.

A New Zealand composer who has explored this genre is John Psathas. He has worked with some of the world's leading percussionists such as Evelyn Glennie and

⁵⁵ Over this period, composers have enjoyed writing music for instruments that have never been explored in a solo way, such as *Time for marimba* in 1968. Keiko Abe, a Japanese marimbist responsible for many of the developments of the concert marimba, commissioned this work to promote the new art of marimba repertoire and percussion performance.

Pedro Carneiro, and virtuosic and talented musicians have performed his compositions all around the world⁵⁶.

Psathas has composed music for soloists, large and small ensembles, major events such as the Greek Olympics games in 2004 and more recently film scores⁵⁷. With such a broad range of mediums, Psathas treats his compositions as ‘a form of communication to an audience’⁵⁸. This programmatic nature usually follows a theme, for example genies in the marimba concerto *Djinn*.

This chapter looks at how my relationship with John Psathas over the last two years has led to the performances of three Australian Premieres, some of which are his most challenging music. Through looking at the main areas of development and preparation, this chapter continues to document the challenges and process of preparing music by a composer who provides candid feedback.

My relationship with Psathas began in 2011 with the commencement of my Masters of Philosophy research at the University of Newcastle. Through a mutual contact, Timothy Constable, I was introduced to Psathas’s work *One Study One Summary* for marimba. As this work has not been performed in Australia, I thought it would be a valid contribution in assisting my research topic of exploring the diversity of percussion techniques and what influence they have on the performance. The music

⁵⁶ Two of the works in this research were composed specifically for two of the worlds most known percussionists. *Happy Tachyons* was written at the bequest of Evelyn Glennie and the *Djinn* marimba concerto was written for Portuguese percussionist Pedro Carneiro.

⁵⁷ John composed his first film score for the New Zealand western film *Good for Nothing* in 2012. He is currently working with the *Booktracks* Company who hires composers to write musical scores for books. A newly designed computer program calculates the reader’s speed and plays the score to accompany the reader as they read the book on an Ipad or MacBook. www.booktrack.com.

⁵⁸ Taken from his official biography inside his scores by Promethean Editions.

contains all the elements of the new genre of percussion repertoire I wanted to research, especially the virtuosic style that extends the performer's skills. With this relationship, I decided to ask Psathas to critique and provide feedback on my preparation and performance of the work, a strategy not usually undertaken by many performers.

5.2 Selection of Repertoire

Psathas has an extensive range of repertoire for different scenarios and I thought it important to select a diverse range of repertoire so that each work could be approached from a different perspective in its preparation. Where each work looks at the range of mallet instruments, each one places the percussionist in a different stylistic situation that affects the way in which they prepare the music.

One Study One Summary is a work written for solo marimba and backing tape. The tape is a soundtrack that follows the performer and is a valid part of the ensemble. The reason why this work is different is because the marimba is required to blend with a technological medium, something that has become widespread with musicians over the last forty years⁵⁹. This has made this work unique and stimulating in the way you approach the preparation.

The Marimba Concerto *Djinn* is a complete contrast to the solo writing in *One Study One Summary* because the percussionist is required to perform with a chamber orchestra. This is a traditional approach for this piece of percussion repertoire following the three-movement concerto format. One of the interesting aspects of this

⁵⁹ Another example of this idea of work came with *Marimba and Tape* by Martin Wesley Smith. This was an original Australian composition from 1983 and showcased the new form of performance.

work is that it follows a program, and with that in mind the performer is inspired by *Djinns* (Genies) and investigates the mythology that inspired this concerto.

In discussion with Psathas about performing his *Happy Tachyons*, he was heartened that I can devote the time required to learning this exciting work. Through his encouragement and support I studied three of his most significant works, where each has a different preparation strategy. *Happy Tachyons* is different in that the percussionist performs with a piano accompaniment. The percussionist is required to perform on both marimba and vibes at unison sections as well as quickly alternating between the two. Symbolising the Tachyon Particle⁶⁰, it moves faster than the speed of light, suggesting that this work is fast and needs to be technically accurate in its execution.

With now having an insight to his approach, it is relatively straightforward to understand Psathas's mode of composing when he achieves a wide level of diversity from work to work.

5.3 Approach to Method of Learning Repertoire

While preparing each work there are multiple ways in approaching it for rehearsal, either as a soloist or soloist with other musicians. This is one of the tasks of performing with other musicians because when you start the rehearsal process it is important to develop a productive collaboration between all musicians to achieve the results in a timeline.

⁶⁰ Gerard Feinberg coined the Tachyon Particle in 1967. The reason it is theoretical is the fact that since it is faster than light no one can actually see it.

With *One Study One Summary* it is important to realise that the performer is working with technology and this can bring its own set of problems. An example of this occurred in my third performance of this work when the computer playing the backing track decided to freeze and turn off⁶¹. This is a problem you cannot anticipate but need to be aware as it can occur in a performance. A wise strategy is to always have a contingency such as have a technical hand there to fix the track quickly.

The approach to learning this repertoire is easy to undertake because of the pre-recorded medium: it is always constant and accurate. In learning the work in 12-bar sections, it is possible to work the phrase up in a relative tempo and slowly join with the tape. This approach applies throughout the work until it is memorised with the tape. Since I premiered this work in a concert hall that did not support the amplifiers that acoustically reacted to the amplification, it is important to rehearse at a least one week in the venue to adjust my approach on the marimba to the new environment created by the amplified sound. Through learning the work in sections with the tape, it is easy to adapt the work in different rooms and acoustics because you are aware of how the two instruments interact with each other at any given point.

Learning *Djinn* is entirely different because there are new factors in the work such as a conductor and an orchestra. Instead of learning the work in small sections, it is easier to learn a whole movement before it is brought to the conductor so he can

⁶¹ This occurred because I was performing the work in a school hall that was at 38 degrees and slowly heated the laptop to breaking point.

familiarise himself with the marimba part. Since the conductor is an honours student at the University of Newcastle it is a major learning curve for his development. He has never conducted a work of this complexity and it is important to meet regularly in order for him to understand the sections that I had prepared. Alongside this, it is easy to send movements to Psathas to comment on and make collective changes to the work instead of sending smaller sections⁶². A challenge we face is then getting the ideas across to the orchestra and how we would approach collaborating with them. An annotated schedule of four rehearsals, each with a different goal, makes it easy to inform the orchestra prior of what is needed for each specific rehearsal. Following each rehearsal I would record the marimba part in sections so that the players can rehearse it in their own time. The dialogue between the conductor and me made it easier to rehearse with the orchestra.

Although *Happy Tachyons* involves only playing with a pianist, it had its own unique challenges when compared to the other two works. A method Psathas suggests for me is to have a piano track and a marimba track created digitally for both the pianist and myself. As this work is divided into 13 sections, it is easier to have the same approach I used with *One Study One summary* by learning the work it in small sections. This time I decided to learn the whole work before we would put the parts together, anticipating this could be a challenge. One of the reasons why I predicted this is that pianists and percussionists often approach playing rhythms differently to each other. An example of this is when a percussionist sees a metric fast passage; they are trained to ensure every beat is placed in the right spot, often at the expense

⁶² I would send recordings and questions to the composer through email and the online storage website Dropbox. This let me send high quality large files instead of low quality email files.

of the notes in between. This comes from the concept of percussionists spending 90% of the time keeping a pulse, where pianists tend to make sure each note is as important as the last. By having the digital rehearsal tracks it is easy for me to rely on the pianist working with the track, ensuring all the rhythms and tempos are settled. An anticipated problem arising from this method of preparation is a reliance on the digital track because it is constant in both tempo and rhythm. This level of precision can be compromised when both musicians play together.

Overall each one of these works needs a different approach to preparation in order for me to be able to learn the work for rehearsals and performances. By using rehearsal tracks and either learning whole movements or only small sections, it became clear what method is most effective in learning the work to attain the best possible outcome in any given time frame.

5.4 Identifying Challenges in the Work

A situation that exists in preparing this music is the lack of other available recorded interpretations to which I could compare. *One Study One Summary* was recorded several times by Pedro Carniero. In preparing the *Djinn* and *Happy Tachyons*, no reference point exists to hear these works before starting to learn the music. Usually, I would study the work and identify the concept and section breakdown before I start practicing and memorising. One way I did this was to listen to the best recording of the work, in the composer's opinion, and follow with the score and pencil⁶³. While doing this form of score study it is easy to identify the most challenging areas in the

⁶³ Usually when music is published online there is information on an album that has a copy of the recording, which has been done under the composers direction, usually by the artist the work was written for.

music. Before studying any of these works it is strategic to identify which areas need the most time and preparation.

With *One Study One Summary* written for Pedro Carniero, there are excellent accounts of him performing the work. They range from studio versions to live versions, giving a give a broad perspective to listen and to compare. A significant challenge in this particular piece is that you have to mix a backing track with a live acoustic instrument: a task for the performer and the sound technicians. The problems here would include the amplification of the marimba and a suitable fold-back for the performer. While studying Pedro's live recording it is understandable why he is wearing earphones to monitor the sound of the tape as well as listening to the marimba through a microphone feed into a mixing desk.

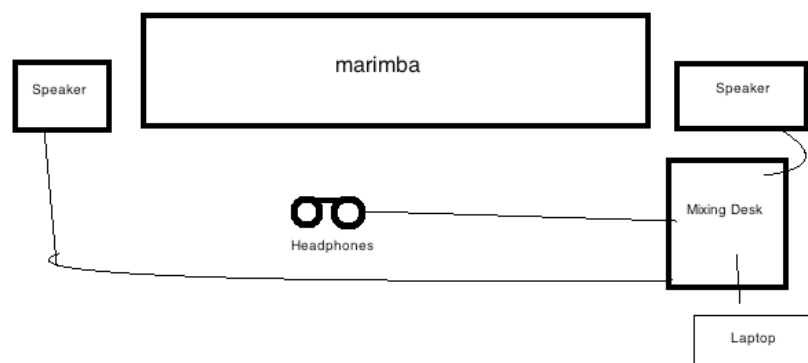


Figure 80: Original stage layout for *One Study One Summary*

Fig. 80 is the first setup I made even before the learning phase began because it is important to familiarise the logistics of the layout. While knowing I am performing this work in a resonant concert hall, it is important from the first learning of the work that it should not be marimba and tape but a combination of the two. Some of the feedback after performing this work is how well the backing tape mixed with the

marimba and how it sounded as one. This is a result of the score preparation while mentally picturing the performance area, knowing it is only six months away.

The next task would be the mix of junk percussion on stage and how it would respond with the microphones and technology. The junk percussion ranged from frying pans, green pots and a range of cymbals. When these instruments are struck individually, they each make a different sound and volume that could possibly cause feedback⁶⁴ in the speaker system. By strategically placing the microphones at a distance from the marimba, it is then easy to control the level of feed that went to each microphone.

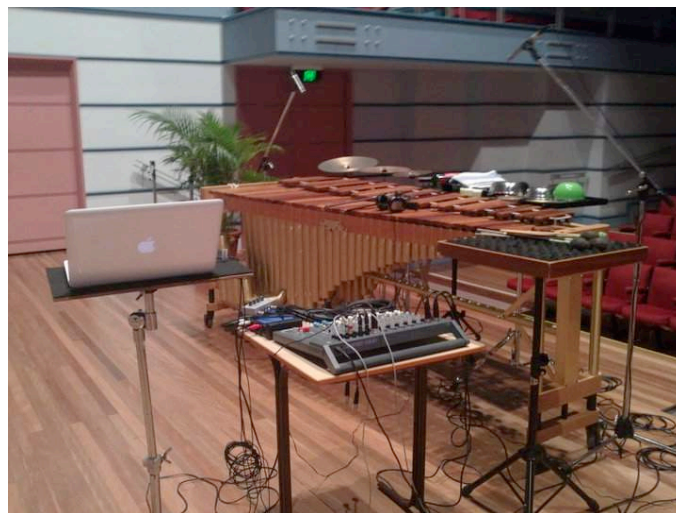


Figure 81: Final layout for *One Study One Summary*

This picture (Fig. 81) is from the first performance of the work and shows the microphone positions and how the setup matches to the original sketch from the period of score study. Combining technology with any form of acoustic sound has an element of risk, but with careful preparation potential problems are minimised.

⁶⁴ Feedback is a loud high-pitched sound that comes out of a speaker when sound re-enters a microphone after it has come out of a speaker.

Where *One Study One Summary* has a technical difficulty because of mixing technology with live sound, the *Djinn* marimba concerto faces more traditional challenges in its preparation. In trying to procure a recording of *Djinn*, Psathas informed me that no one had ever recorded it: just the live video of the first performance by Pedro Carniero. After studying the score it is easy to see that a professional orchestra is needed to perform the accompaniment to the concerto. The other major decision now is to who would conduct the concerto and how they would relate to the process.

The challenge I found in preparing this work is that I am rehearsing the work with a digital orchestra that Psathas had created and not the real one. The risk of this type of preparation is that you become reliant on the many cues and sounds from the digital orchestra. However, this level of reliability can be compromised working with a live orchestra, especially when it is a new and difficult work. By letting the conductor lead the orchestral rehearsals, it is important that all these areas are covered. I mark score carefully showing what cues I rely upon from the digital track and now expect these cues to be reassigned to the ensemble.

Psathas is renowned for writing brisk and sometimes impossible tempos, an area of healthy debate in our conversations. With the final movement of *Djinn* written at a tempo that is virtually impossible, it is a priority in preparation that we re-mark the tempos to what we thought are possible with the orchestra. By having these preparatory sessions with the conductor it is possible to remove the main obstacles and find mutual resolutions before we combine the marimba and the orchestra, saving us valuable rehearsal time.

Preparing *Happy Tachyons* follows a similar scheme to *Djinn* by learning the work in conjunction with a piano track. The main problem here is not the learning of the notes but rather the combining of two percussion instruments with the piano. This is only achieved with adequate rehearsals with both musicians until the ensemble is settled.

One of the features of *Happy Tachyons* is playing two percussion instruments at the same time. When looking at the score, the tempo and rhythms are complex and would need to be executed with a well-rehearsed and grounded technique. By practicing both parts together at a slow tempo with a metronome, each note and hand movement is rehearsed so that when the tempo is increased gradually the transitions are seamless.

It can be seen that these works encounter different strategies of preparation, whether it is influenced by technology, rehearsing with others or playing multiple instruments. All these problems are resolved with detailed and informed preparation alongside an approach that results from studying the score even before you play a note. The importance of preparation for percussion is ensuring problems are identified and dealt with quickly with minimal fuss and then progressing to the next phase of the process.

5.5 Psathas Feedback

Throughout the preparation, I sought feedback from Psathas on both my preparation and the performances of his music. Through email and Dropbox communication it is

possible to send high quality recordings to Psathas, after which his feedback was returned in a timely fashion.

One Study One Summary had the least communication during its preparation because my relationship with Psathas had not been established yet. By letting him know I was doing the Australian premiere of the work, it roused his interest and he sent me emails in regards to the direction of the work and what I should be aiming for. The main communication to Psathas is after I had performed the work; I sent him a video recording in anticipation for his comments. In this instance, Psathas was happy with my performance and how I took the small ideas he gave me and incorporated them into the work. This was the first time I had put myself up to be critiqued from a composer whose work I had played. With these comments of the performance it was possible to include some of the ideas that Psathas suggested, which took the work to the next level.

Djinn is the first work where I have had a composer critique and provide input to the work from the start of the preparation phase. I had an ongoing dialogue with Psathas via email, which addressed issues around accents, tempos, rhythms, cadenzas and the preparation of the orchestra. One example of our continual dialogue is on the topic of the two cadenzas in the second movement and how they should be played. I chose not to include Psathas in my dialogue because I was using generous amounts of *rubato* in my approach to these cadenzas⁶⁵. After I had sent him a recording of the performance, he promptly emailed back with this quote on the cadenzas:

⁶⁵ *Rubato* is when the tempo moves up and down at a free will; sometimes this can be a single phrase or an entire movement.

The cadenzas at F have real beauty in the playing, but rhythmically, there is very little room for *rubato*. I have written this to be rhythmically strict⁶⁶.

This is a typical response of how Psathas reviewed my recordings of a performance, whereas the emails relating to preparation are different because I am directly asking him for his input. In this email I ask Psathas about mallet type for the first movement and whether my mallets should be the same or a combination of hard and soft. With the harder mallet in the upper voice, a sense of syncopation emerges from the part. I asked him if he agreed with this compared to all the same mallets with minimal syncopation:

I like the idea of bringing out the upper mallet, but the sense of this movement is that it has to be a universal sound that stays underneath everything. It needs to be consistent, so I recommend you use the same mallets across the board⁶⁷.

This style of dialogue continues throughout the preparation of the work and helps me shape the work. When it came to Psathas critiquing the final performance, it was easier knowing he had been hearing me through the entire process. I believe, despite the valuable feedback, I am still in command of the overall artistic outcomes.

The communication for *Happy Tachyons* with Psathas is similar to that of *Djinn* with the exception that his comments focused towards sections instead of small ideas—this is because it is written in 13 sections—and then I record each section and send

⁶⁶ John Psathas (29th January 2012)

⁶⁷ John Psathas (10th December 2012)

it to him. By the time I learned this piece I was well aware of Psathas's methods and found his comments were lessening, especially from the hard-line criticism I received after I played *One Study One Summary*. An example of this is when I recorded one of the sections where the marimba connects with the piano and he wrote back saying:

This is a great recording, but remember here the goal is to make the marimba and piano sound as one instrument. Could you possibly also think about playing this section with a softer set of mallets to help this connection⁶⁸.

This example shows how I now understand Psathas's ideas even before I have asked him about it. In having this constant communication with the composer, I have a greater insight into how he composes and what he expects in performances of his works. His approach to me in this example has changed since I first started being critiqued by him, by asking me to consider using softer mallets he is asking for my opinion. This would not have even been an option in respect to the other two works. However, I have observed a level of professional respect and rapport developing between us, and a degree of trust present in my performance of his music.

After I finished learning *Happy Tachyons* I sent Psathas a recording of the work and ask him if he thought it was ready to be performed to an audience.

Sounds fantastic David! This is definitely ready to be performed and I wish you all the best in the first and many performances of this work⁶⁹.

⁶⁸ John Psathas (27th May 2012)

⁶⁹ John Psathas (4th August 2012)

This is, to date, the most encouraging email I have received from Psathas in our communication over the last two years. One of the challenging things a musician can undertake is to open his interpretation of a work to its composer, but by having this open dialogue develop you can enhance and make the learning and preparation phase more effective.

Chapter 6 – Concerto No.2

6.1 Introduction

In my research into percussion performance, I have prepared and performed works for solo marimba, solo vibraphone, chamber music and now finally this concerto for marimba and wind orchestra. The *Concerto No. 2* by the American composer David R. Gillingham (Fig. 82) concludes my final performance as part of the four recitals I have performed over the last two years at the University of Newcastle.



Figure 82: David R. Gillingham

In my original proposal I was commissioning Gerard Brophy to write a marimba concerto with wind orchestra but due to delayed funding from the Australia Council this could not happen in the time frame of the research. One of the most frustrating challenges for all musicians and composers to face is obtaining funding to write music because there is only handful of organisations in Australia willing to fund new

music. The Australia Council is the Federal Government's funding arm for the arts, with grants for new music being accepted twice a year. I submitted a funding application for this project but it was regrettably declined for budget reasons. As an aside, I am fortunate to gain funding in the subsequent round but unfortunately this did not allow enough time for the new work to be composed and included in my current project. The process I underwent is important and was a significant learning curve, especially in the context of an emerging young musician: see Appendix 4. As a fall back, I chose to perform the *Concerto No 2 for Solo Marimba and Wind Orchestra* by David R. Gillingham. This is a suitable alternative because it met my plan of performing a concerted work.

On finding out that my application for a new concerto was denied, I had to start looking for another one to replace the commissioned work. One of the exciting outcomes about this new commissioned work is that it will be premiered in 2013 and will add to a genre that has had minimal development. Percussion performance is a new genre: works for marimba and wind orchestra are rare. Finding a concerto for marimba and wind orchestra that fit the parameters of my research would be a challenge because the extent of works fulfilling these specifications is relatively small.

David R. Gillingham is known internationally for his works written for wind orchestra. They have been performed by some of the finest musicians and orchestras in the world. In his career Gillingham has written various concertos for different instruments, with highlights being his two concertos for percussion ensemble/piano and wind orchestra. I was introduced to his music from a colleague in Taiwan who

performed in the premiere of one of his concertos for percussion ensemble. After researching Gillingham I discovered he had written a marimba concerto and wind orchestra in 2008, which was performed by She-e Wu, a renowned percussionist who, similar to myself, is an endorsed performer with Mallettech, the leading manufacturer of keyboard percussion instruments.

6.2 Movement 1

The appeal for me in performing this work is the overall framework of the music, which focuses on the typical characteristics of wind orchestra repertoire such as soaring wind melodies, brisk tempos, and catchy metres encompassed through the use of brass, wind and percussion timbres. The other works in my research I consider more technically difficult because they were written to extend the performer more than Gillingham achieves with this work.

David R. Gillingham states in the opening comments of the score that this work exploits the full range of the technical and expressive ability of the five-octave concert grand marimba⁷⁰. This gives an indication to the performer that they will be moving over the full range of the instrument, which is one of the attractions to the marimba for composers. A simple way to explain this is that the marimba is the solo/concert version of the xylophone. Composers since the romantic era have embraced the timbre of the xylophone even though it sounds basically the same from its lower to its upper register, minus the pitch. The five-octave marimba explores a deeper and darker timbre in its lower register compared to its higher, almost xylophone-like sound in the upper register. Gillingham's quote is reinforced

⁷⁰ Taken from the program notes inside the sheet music of *Concerto No.2* for Marimba by David Gillingham. Published by C. Alan Publications in 2008.

by the first entry of the marimba as the performer begins in the lowest register and progressively moves through the range, highlighting the changing of tone colour of the instrument: Fig. 83.

I. *David R. Gillingham*

Slowly $\text{♩} = 60$ Mysteriously $\text{♩} = 60$ freely in tempo

The musical score consists of two staves. The top staff is in treble clef and the bottom staff is in bass clef. The key signature has two flats (B-flat and E-flat). The time signature is 4/4. The score begins with a 4-measure rest in both staves, followed by a 5-measure rest in the top staff and a 4-measure rest in the bottom staff. The music then begins with a *mf* dynamic. The top staff has a melodic line that moves from a low register to a higher register. The bottom staff has a rhythmic accompaniment. Dynamics include *mf*, *p*, *accel.*, and *f*. Tempo markings include 'Slowly Mysteriously' (with a quarter note equal to 60), 'freely', and 'in tempo'.

Figure 83: Opening marimba entry. (Source: Bar 1-7, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

In considering the opening section, as seen in Fig. 83, it is important to choose a pair of mallets that brings out the changing colours as you progress to the upper registers. I discuss the importance of mallet selection throughout other chapters. In this case, I decided to use multi-tone mallets. These mallets have a looser wrap of material on the end, which means that the softer you hit the bar the more vocal it will sound, whereas if you put pressure, the material bunches together thus delivering a harder sound.

This movement is in a sonata-rondo form and features several recapitulations throughout. Fig. 61 shows the principal expressive theme used in the upcoming 5/8 sections.

The underlying character of 5/8 is quick and restless, being derived from the G minor marimba opening. These sections are fast and alternate between metres of 2 and 5: a challenge when performed at the indicated tempo of MM Crotchet = 132: Fig. 84.



Figure 84: This 5/8 figure features strongly in the first movement. (Source: Bar 20-26, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

After studying the score, this section requires secure ensemble rehearsal with the wind orchestra by preparing at tempos below and above the marked speed. This methodical approach builds for a more secure ensemble. By staying with the multi-tone mallets I am able to obtain a range of sounds from the instrument over the fast-paced passage. An example of this is the significant difference in timbre from the lowest D to F# and B in the treble clef in Fig. 84. This is possible because of the character being stronger, from the impact of the resonators in the lower range; I do not have to strike the instrument as hard.

The next section of this movement shows the marimba is scored in the middle range of the instrument. This passage is in unison with the piano and the players need to be sensitive to the weight of tone in both parts: Fig. 85.

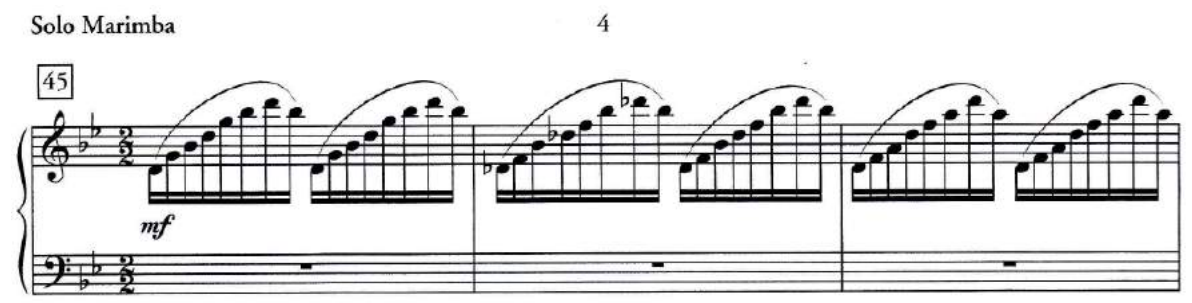


Figure 85: These marimba runs are in unison with the piano. (Source: Bar 45-47, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

As these runs feature extended slurs, it is important to focus on the *legato* style to achieve this effect. The choice of using a softer mallet will achieve this.

Later in this movement a similar passage occurs minus the slur, as there are multiple accidentals in the marimba part. Where the melodic line moves down in semi-tone steps, it is important that each one of these notes is articulated clearly because they all contribute to the harmonic context: Fig 86.



Figure 86: This example features important harmonic content that needs to be clear. (Source: Bar 60, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

This second phrase, without the slur, incorporates accidentals and gives a harmonic role of the marimba.

This type of phrase is commonly seen in marimba technique books because it assists players to develop the use of all four mallets. From a sticking perspective including the F#, the preferred mallet order would be 1-2-3-4-2-3-4-3, with mallet 1 being the furthest to the left and mallet 4 being the furthest to the right. See Appendix 5.

The next section of this movement is easily performed more accurately with only two mallets instead of four. Similar to the other sections, the marimba plays a passage

moving down by semi-tones in two-bar phrases with a slur above to make the notes blend together into one phrase. The main reason why you would perform this section with two mallets is because the tempo is brisk and you can play it more accurately with just the two mallets: Fig. 87.

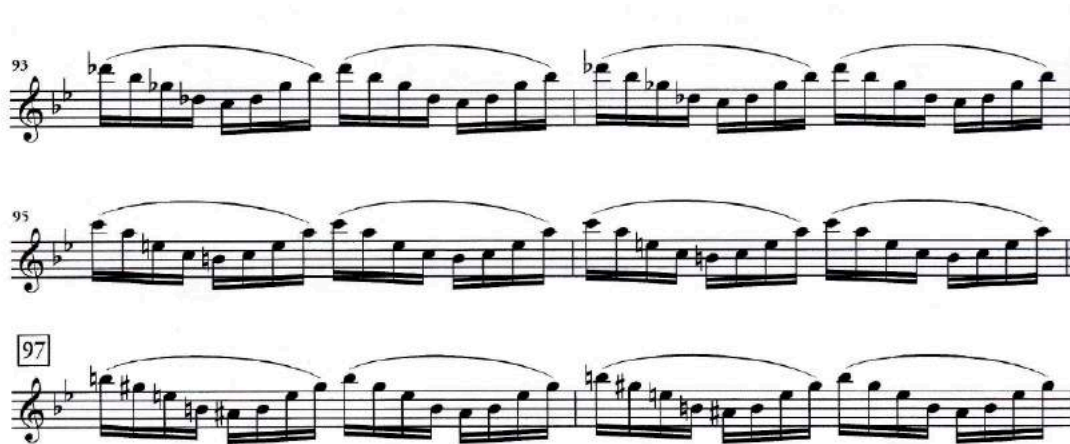


Figure 87: This section can be played with two mallets and needs to be accurate so it can dictate the harmony. (Source: Bar 93-98, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

In learning this section it is important to prepare it initially un-accented so that the marimba can shape these phrases over the top of a secure accompaniment. However, for preparation and rehearsal purposes it would benefit the wind orchestra to accent the first beat of each bar until the tempo is steady throughout. This is very reassuring for me.

Again, mallet selection is important when generating different tones from the marimba. It has become common practice for percussionists to use different types of mallets in the same grip, such as two softer mallets in the left hand and two harder mallets in the right hand. For example, in one section of this movement it is important to have the right hand speak louder than the left. (see Fig. 88)



Figure 88: This examples features polyrhythms that can be brought out by different mallets. (Source: Bar 141-148, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

In this Fig. 88 there is a contrasting rhythm in both hands, with the left playing a constant quaver pulse and the right accenting in triplet patterns. In choosing mallets for this section, I decide to use softer mallets in the left hand and harder mallets in the right to achieve the desired effect. The softer mallets create longer and deeper resonance, producing an almost drone-like bottom and making the polyrhythms more prominent.

The main motifs discussed so far are featured once or twice throughout the movement. Compared to the other works in my research, this work is easier. However, more mallets changes and decisions are required to achieve the subtleties and nuances of sound and tone colour of the instrument and this is a task percussionist's relish.

6.3 Movement 2

The second movement of the concerto is a complete contrast to the first, as it is a chaconne with eight different variations. Where the first movement involves different

mallet selections to create different tone colours in the instrument, the mallet selection in this movement is much more straightforward because the only variation that needs to occur is the dynamics. This work encompasses the five octaves of the marimba and it is important to have a set of universal mallets that will bring out the brightness of the upper register and the warmth of the lower.

The marimba opens this movement with the chaconne theme. This beautiful B flat minor haunting chorale is written in my favourite octave of the marimba, for it hints of the brightness from the upper register coupled with the warm tone of the bottom octave, akin to having your hands separated widely on the piano. It is said that the pitch difference between the octave of a piano and the octave of the marimba is different because the marimba sounds lower than it actually is.

The opening theme is written slowly but should still maintain a pulse because there is accompanying timpani in the background: Fig. 89.

II.

Chaconne ♩ = 56



Figure 89: The SATB opening of the second movement. (Source: Bar 1-7, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

This section is the most harmonic of the whole concerto because it embraces a strictly written chorale style; something carries over to multiple sections in the wind orchestra throughout this movement. (see Fig. 89)

The first variation of the theme occurs at Bar No. 11 when the marimba plays the variation in semi-quavers above the low brass who are playing the theme. In rehearsing this section, I think it is important to maintain the tempo set in the opening by the marimba: this will assist when the low brass takes over the theme, leaving the marimba to perform the semi-quaver variation.

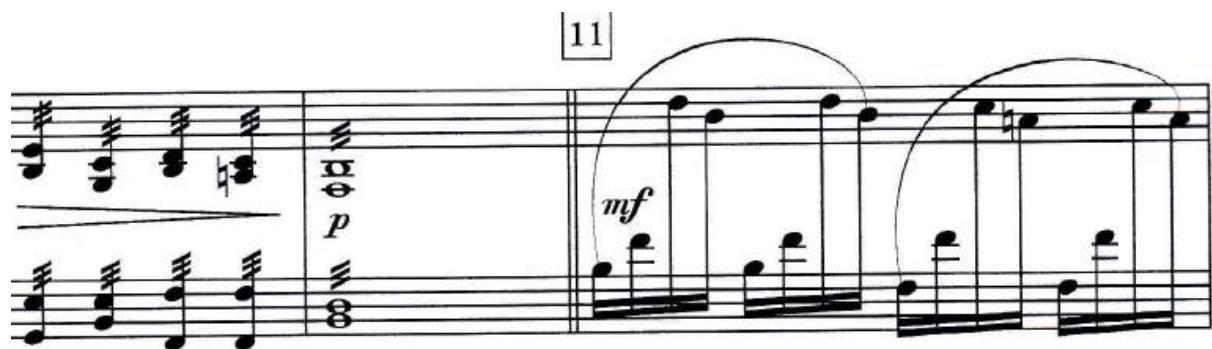


Figure 90: The changeover between variations. (Source: Bar 9-11, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

After studying this variation, it is important the slurs are strictly observed and the overall pulse comes from the lower brass playing the theme. Even though the marimba has the prominent moving part, it is easier to play these moving parts over a steady brass accompaniment. In any chaconne, the stepping bass line is the most important and needs to be accurate; in this case the marimba bass line is B flat, B flat, F and F. These have to be accurately aligned with the lower brass, leaving the marimba a little time to move within the crotchet pulse.

The second variation is similar to the first, except that the marimba now progresses to a faster-paced variation. The oboe in the original theme now accompanies the lower brass with the marimba playing the variation in demi-semi-quavers. Following on from the importance of the step-like pattern in the first variation, the marimba has more notes to play with, but still needs to maintain the unison with the other instruments as they perform the original theme together.

In preparing this, it takes repeated runs with the orchestra to decide how much *rubato* the marimba can use in between each step (crotchet pulse): Fig. 91.

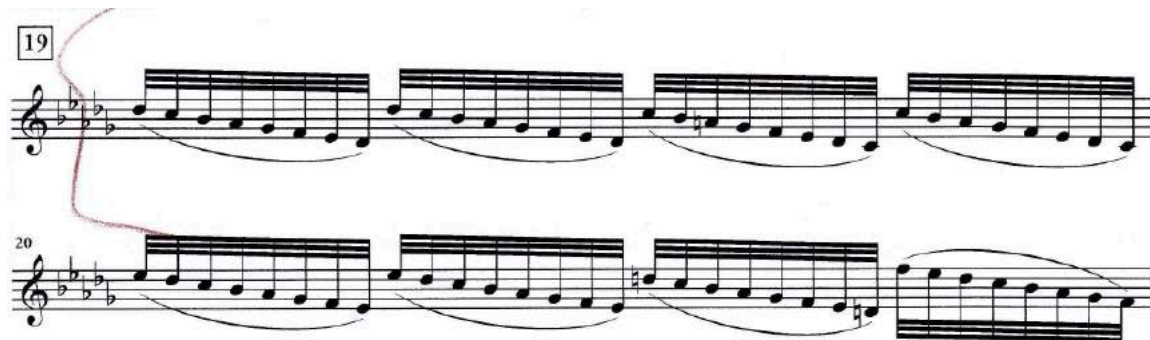


Figure 91: The demi-semi-quaver variation. (Source: Bar 19-20, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

The next two variations follow along the same idea as the previous ones, with the exception of the marimba now reverting to semi-quavers. Throughout this variation the flutes and vibraphone are added, creating a new texture and, following this, the marimba moves into triplet semi-quavers setting up the next variation. Where these variations are considered just one, the changing of the marimba part shows the step patterns of the original is there; the change in note duration on the marimba creates the new variation: Fig. 92/93.



Figure 92: Variation Three. (Source: Bar 29-30, *Concerto No.2*. David Gillingham, C-Alan Publications 2008.)

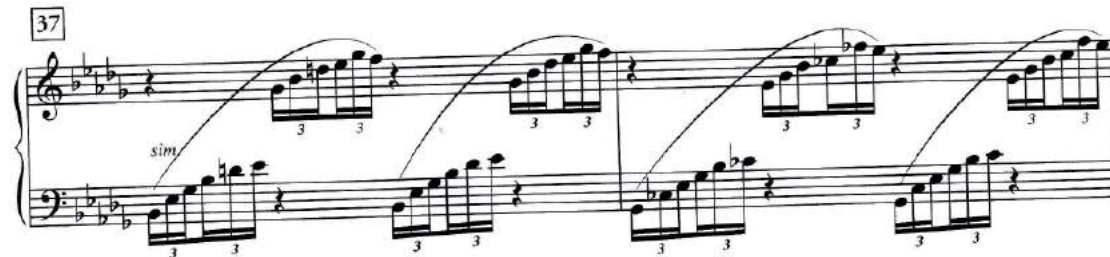


Figure 93: Variation Four. (Source: Bar 37-38, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

The fifth variation requires a harder pair of mallets as the nature of the movement changes. In this variation, the orchestra is in 6/8 with a descending marimba part playing the variation on the theme. The accents in the marimba need to be brought out and this will require by choosing a harder pair of mallets: Fig. 94.



Figure 94: Variation Five needs harder mallets to bring out a strong pulse. (Source: Bar 45-48, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

This is the largest variation of the theme the previous variations to lead up to a climax at this point. Similar to the first movement, the marimba has a role that cues the conductor at a pulse of MM Crotchet = 144. Unlike the other variations where

there is room to move the tempo between the pulse, this variation needs to be forthright in setting the dotted crotchet pulse.

Variation Six features a bowed marimba, a technique pioneered on the vibraphone since the instrument's creation. It involves running a double bass bow along a chosen key, creating a haunting-like tone as seen in Fig. 95.



Figure 95: Variation Six features bowed marimba. (Source: Bar 81-94, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

Throughout this section it is important the first beat of every bar where the harmony changes coincides with the piano and bells, not too dissimilar to the other variations where the marimba has to be in time with the lower brass. This section is the least challenging because the technique is easy to master, but it might take rehearsal time to secure the piano and bells part.

Variation Seven features the brass section without the marimba. The lower brass plays the chaconne with the trumpets playing a triplet variation against it.

The final variation follows a similar harmonic role to the opening with the marimba playing rolling arpeggiated chords over the chaconne chordal progression and with the euphonium playing the original theme, as seen in Fig. 96.



Figure 96: The final variation features rolling arpeggiated marimba chords. (Source: Bar 108-111, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

In this variation, the marimba is playing an accompaniment role, as the variation is just the chord progression. By having the chords accompany the solo euphonium, this variation leads back to the original theme where the movement began.

At the end of this variation, a sombre coda is heard on the timpani and the marimba brings the movement back to where it first began and then finally to the conclusion. Most of the decisions in this movement are around tempo and how the variations are varied while still keeping the original theme in progression. There are limited mallet challenges, unlike the first movement, with the tone of the movement following a similar style throughout.

6.4 Movement 3

The third movement of this concerto is similar to the first where it is written in a sonata-rondo form and features a cyclic approach. The movement combines both themes from the first and second movements as well as adding new motifs.

The first section of the last movement introduces a new thematic theme in D minor. This theme is awkward because you go from performing with all four mallets to now only using two.



Figure 97: Opening of the third movement. (Source: Bar 1-4, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

In Fig. 97 you can see Bar No. 2 features only two notes, signifying the need for two mallets, where in the following bar there is a wider spread of intervals, thus requiring more mallets. The following bar goes to a scale run, which again would only require two mallets. This constant change of mallets is common, but it takes rehearsal time to settle the exact process to ensure notation accuracy as well as maintaining the tempo.

This movement is different to the other movements because there are many orchestral solo sections where the marimba does not play. This main theme appears again after an orchestral solo with a timpani feature ending the orchestral passage: Fig 98.



Figure 98: A variation on the 6/8 section from the second movement.(Source: Bar 62-65, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

After the new thematic material, the marimba plays a recapitulation on the 6/8-fury section from the second movement, Fig. 98. This is the first recapitulation in this movement and, since it is high on the marimba, it is important to have a harder mallet to obtain the brightness required to get above the orchestra. The first time this theme occurs in the second movement the orchestra is soft, whereas now the tempo has increased and the theme is expressed in a new context.

The second recapitulation occurring in the second movement is where the marimba changes the note duration. The first few bars are all in quavers until the marimba changes the variation to triplets: Fig 99.

Figure 99: a new variation from the second movement is found in the third movement. (Source: Bar 77-82, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

Unlike when these figures appear in the second movement with a slow *rubato* tempo, in this movement the tempo is constant and fast, meaning the change from quavers to triplets needs to be seamless. It is the first occasion to change mallets as the overall dynamic has decreased. In choosing multi-tone mallets (the ones used in the opening of the first movement) the marimba can move from a soft warm sound to

a harder sound in the triplets. By having this all prepared before the rehearsals, it is easier to lead the ensemble in what to listen for in keeping the tempo. A challenge here is that the orchestra might treat it like the second movement and slow down, as the nature of the melody is familiar to them; however, this will be consolidated with practice.

Like the section in the first movement where it can be performed with two mallets, a similar section occurs in this movement, with one difference being accents placed on the crotchet beats: Fig. 100.

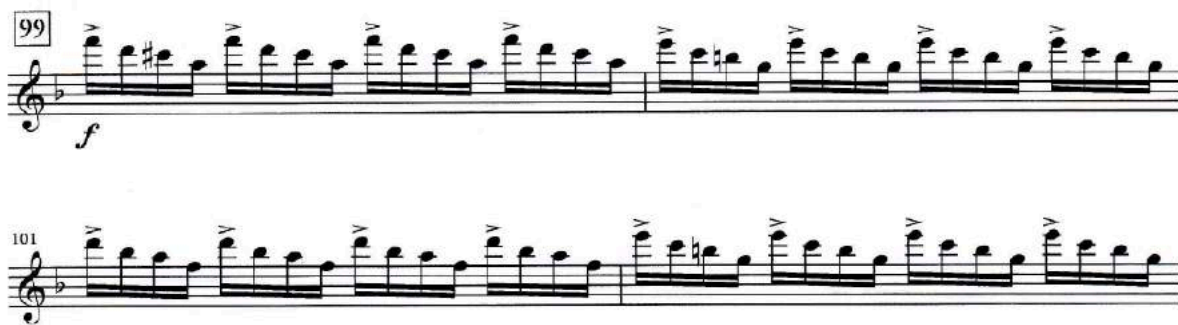


Figure 100: An example of a pulse that can be supported by a dominant marimba part. (Source: Bar 99-102, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

Similar to the first movement, in this section the pulse is supported by the marimba when it plays accented semi-quavers. In this recapitulation it is important to ensure the tempo is maintained throughout the section because in the first movement it is in a two-feel whereas here it is now in a four-feel.

The next two sections are recapitulations of the chaconne theme from the second movement. The first one is similar to the rolling arpeggiated chords near the end of

the second movement, while the other is similar to the second variation: Fig. 101/102.



Figure 101: Variation 8 from the second movement. (Source: Bar 108-111, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)



Figure 102: The variation of Fig. 93 in the third movement. (Source: Bar 119-122, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

Both of these are very similar as they are following the chord progression of the chaconne with the only difference coming from the tempo.

These two examples show how Gillingham has taken an idea and woven it through several situations in the concerto. Even though each time it appears in a different context, there is an awareness of the chaconne that first appears as a marimba solo in the opening of the second movement.

The movement then goes back to the new thematic material from the opening, with the ending combining the chaconne from the second movement as well as the new material. The opening of this movement gives way to a variation of the chaconne in a similar style: Fig. 103.



Figure 103: An example where motifs from other movements blend into each other. (Source: Bar 177-182, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

In Fig. 103 the original material from the start of this movement changes at the 2/2 bar when a variation of the second movement takes over in a similar pulse and style. Instead of it being in crotchet pulse, the step changes are now occurring at the start of every bar: an example of this is the F/A at the 2/2 bar (marked with orange) changing a step down to a C in the following bar.

The next section is the marimba cadenza, which explores the same thematic opening of the first movement and the chaconne in an expanded form from the second movement (see Fig. 104). This cadenza draws out and invites the listener to hear these themes one last time before the work concludes. (See Fig. 105)

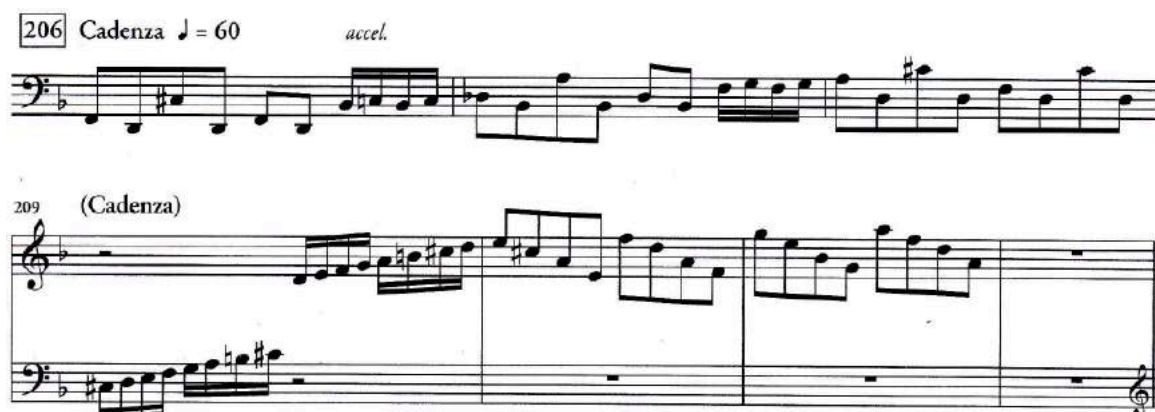


Figure 104: The start of the cadenza. (Source: Bar 206-212, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)



Figure 105: Second half of the cadenza is based on the second movement. (Source: Bar 223-229, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

The ending of the work follows a new galloping *presto* (coda) in the key of D major, a complete contrast to the opening of the work. Even though this is a similar motif to the opening of the third movement, the new tempo and major key makes this ending more dramatic: Fig. 106.



Figure 106: The galloping presto. (Source: Bar 247-254, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

This *presto* follows a call-and-response between the marimba and the orchestra with the marimba ascending for three bars followed by orchestra playing for a bar before the marimba takes over again (see Fig. 106).

David R. Gillingham has written a work complementing the full range of the concert marimba as well as the sounds that make a wind orchestra unique. Being a rare genre, the work embraces movie-like thematic material; however, it should never be treated casually because each movement has its individual challenges. By deciding what sounds and timbre I want out of the marimba before we rehearse with the wind orchestra, it is possible to piece the sections together through a collaborative approach.

6.5 A Summary of the Performance of *Concerto No.2 for Marimba* with examples demonstrated in DVD no.3

The performance of *Concerto No.2 for Marimba and Wind Orchestra* took place on 11th November 2012 as part of *An Afternoon with the University of Newcastle Wind Orchestra*. In this concert the wind orchestra performed a variety of repertoire, from original works for wind band, transcriptions of other works, and a work composed for the University orchestra. This included *Elsa's Procession to the Cathedral* by Wagner⁷¹ and the original work for wind band *Of Dirt, Cement and Wires*.

The chosen repertoire demonstrates the versatility of the orchestra as well as different genre of wind band music, something that Gillingham reflects in this marimba concerto. In having a wide variety of music programmed around the concerto, it was easy to exhibit the unique nature of marimba writing, as well as showcase the marimba and how it complements the sonority of a wind orchestra.

⁷¹ This work was originally from the romantic opera *Lohengrin* by Richard Wagner in 1850. The transcription the wind orchestra performed was arranged by Lucien Calillet.

In my research, this is the only work where I have not been in communication with the composer, nor have I sent a recording to him to critique the work after the performance. Where this work is not as problematic as the Psathas works, it does have its own distinctive checks. As I identified at the start of this chapter, Gillingham has written a work that is not overtaxing in its technical demands. However, considerations such as mallet changes, tones colour and rhythmical stability are all important in leading to a successful performance. By including the advice I received on Psathas' works, I utilized similar ideas in my preparation of *Concerto No.2*. An example of this is the mallet selection and the overall character of sections, especially in the second movement where it has numerous variations based on a theme.

The analysis of the performance is supported by a DVD, which can be watched in chapters detailing each section of the concerto. By watching the full performance you can gain a perspective into how the concerto is written, taking into account the elements that makes it unique to both marimba and wind band genres.

6.6 Movement 1

In this movement it is important that the marimba plays a prominent role in both the lower and upper registers of the instrument. As I discussed in the analysis of this work, the opening of this movement encompasses the whole range of the marimba. After this opening, the fast-paced 5/8 sections occur, suggesting I need a mallet that can perform widely over the instrument with the capability of varying the dynamics. By trying multiple mallets, I found that a medium-hard yarn would be the best option because you can gain sufficient tone in the lower register with a brighter tone in the

upper register by using more power. In watching the opening of the first movement and the 5/8 sections on the DVD, you can see how universally my mallet selection helps both sections achieve the tone and the desired result. There is a soft but yet powerful tone in the lower register, a bright cutting tone on the upper, and a complementary tone to the wind orchestra in the 5/8 sections [DVD: Chapter 1].

I. *David R. Gillingham*

Slowly & Mysteriously ♩ = 60 freely in tempo

Figure 107: An example of the marimba range in the opening and how the mallets need to complement each octave. (Source: Bar 1-7, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

I am pleased with the decision I made in using these mallets because each octave has its own character, whether it is the darker timbre of the lower notes or the sharp envelope of the upper. Where it is a challenge in *Happy Tachyons* to constantly change mallets, in this work it is adequate to find a universal mallet that could perform multiple roles.

As I noted in the previous half of this chapter, preparing the 5/8 sections is central because it maintains the rhythmical stability in the wind orchestra. In preparing this, I rehearse these figures at slower tempos and tempos greater than the marked MM ♩ =132. In having a greater control over these shapes it is easier for me to balance my part with the orchestra when it comes to rehearsals and the performance. After

several rehearsals with the orchestra I find these 5/8 figures were a challenge for the upper winds, especially the clarinets. Watching the recording of the performance you can hear how the clarinets sit on the back end of the pulse in the 5/8 bar. Even with my preparation of these figures, it is still a challenge in connecting the marimba to the wind orchestra. I believe this is due to a limited time frame for rehearsals with the ensemble and by the individual musicians in the orchestra [DVD: Chapter 2].

20 Quick with restlessness ♩ = 132

Figure 108: The challenging 5/8 bars from the first movement. (Source: Bar 20-26, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

In Fig. 108 the marimba is playing semi-quavers throughout when the orchestra is playing groupings of a crotchet/dotted crotchet: 2 and 3. In reviewing the recording, most members in the wind orchestra take too much time on the dotted crotchet, almost treating it like a triplet instead of three quavers. Even though these problems occur, there is a sense of rhythmical stability in this movement. Ultimately, I am the one that has to adjust the dotted crotchet inside the 5/8 bars, which I believe is possible because of the tempo preparation I undertook.

Solo Marimba

4

45

Figure 109: This marimba part is in unison with the piano. (Source: Bar 45-47, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

The above Fig. 109 is one of the most satisfying sections of this performance for several reasons. The main reason is that after all the problems that occurred while studying *Happy Tachyons* without a pianist it is enjoyable to find a section in this concerto where the pianist and I could develop a sense of ensemble. In preparing this section, as I stated previously, it is important these runs are accurate with a smooth flowing technique that enhances the slurs. On reviewing the recording, the pianist and I perform these unison sections with diligence and passion. Similar phrases occur throughout this movement with each being a highpoint to perform [DVD: Chapter 3].





Figure 111: This section was performed with two mallets. (Source: Bar 93-98, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

In my pre-preparation of this figure, I state I could perform this section with two mallets. After rehearsing and performing this work, this decision is successful in not only the note accuracy but in a visual sense. By taking the time to drop two mallets it is easy to then direct exactly when this section needs to start maintaining a strong pulse and harmonic value. In listening to the recording I believe the mallets I use in this section could have been softer to help connect the notes marked with a slur. Here, I opted to sacrifice the *legato* with a driving semi-quaver pulse to keep the orchestra in time. I did discuss previously that the mallet selection here should be important in observing the slur, but after several rehearsals with the orchestra I altered my strategy so that a steady pulse could be maintained [DVD: Chapter 4].

Generally, I believe this movement is the most satisfying to perform out of the three. It is because I found this movement has the most variety and demands on my part, in both performance and planning. By using specific mallets I could bring out the characters I needed, similar to that in the Psathas works, even if one section had to be sacrificed because of tempo issues. This movement is a clear example of how different instrumentalists approach rhythms such as 5/8, as well as how they

approach tempo and collaborating with a soloist. When they struggle to maintain a certain pulse, it is easy for me to accommodate them and help maintain the rhythmical stability of a difficult movement.

6.7 Movement 2

Unlike the first movement, the second movement has more exposed parts as the orchestra performs eight variations on the theme. Each variation is different, whether it is the instrumentation, tempo, style or technique. All of these variations, except for Variation 7, rely on the marimba to lead the stylistic differences between them.

The first and last variations are performed by marimba with the occasional interjection from the timpani. Both these sections are written in a strong chorale style. Unlike the first movement where the mallet selection is important in creating the right timbre, this movement is straightforward in its mallet selection. By keeping to soft mallets in all of the variations except one (Var. 5), it is easy to control the dynamic and sound of the marimba and thus helping me to create the chorale sound in the first and last variations. In choosing to use one type of mallet in my preparation, I found it easier to keep the same timbre throughout and still keep the warm chorale sound. After listening back to this movement I am contented to see that the warm tone is present in all variations and that my mallet selection is correct [DVD: Chapter 5]: Fig. 112.

II.

Chaconne ♩ = 56



Figure 112: The main SATB chorale theme that the eight variations are based on. (Source: Bar 1-7, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

One of the concerns I found in this movement, which I have not yet experienced in the other works, is intonation. Since this movement has exposed instrumental parts, it is important that all the orchestra members are aware of intonation as well as their tone. I found some of the more susceptible instruments are prone to pitch instability, such as the oboe. Performing on a fixed pitched instrument is a challenge when you are performing with another instrument that can vary their pitch within a given bar. A great deal of this is attributed to factors such as the level of the player's experience coupled with quality of their instrument. Throughout this movement there are numerous times when instruments were out of tune or progressively went out of tune in phrases, namely the oboe solo and the piccolo. Even though there is nothing I can do to rectify this problem, it is sometimes a real challenge to perform when there is instability in a number of player's intonation, such as the variation in Fig.113 [DVD: Chapter 6]: Fig. 113.

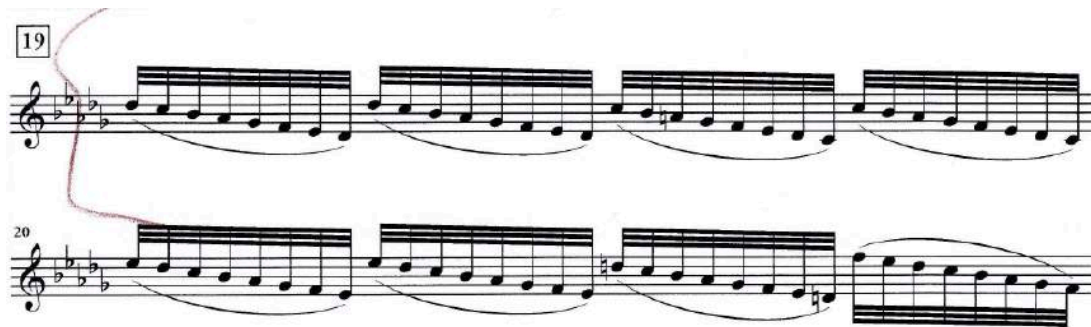


Figure 113: The second variation. (Source: Bar 19, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

In the recording I found a few uneasy examples where I played wrong notes. I remember that when performing this movement there was a challenge when I was trying to play along with an oboe that was out of tune. In this variation, Gillingham, I believe, intends each note to be precise. Even though this research does not touch on other instruments and their tuning, I found this variation extremely hard to perform when I could not intervene; I just relied on my preparation and kept adhering to the marked tempo. After watching and listening to the recording I believe this is a reason why I found this section so distracting to play accurately, but that is the nature of live music.

Most of the variations in this movement are similar with the exception of Variation Five: Fig. 114.

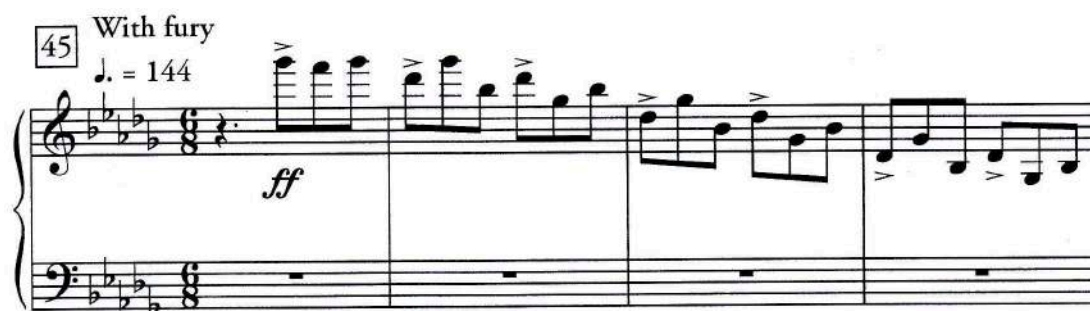


Figure 114: Variation Five is the most contrasting variation. (Source: Bar 45, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

The main reason why this variation is different to the others is the tempo, colour and character. Where the other variations are based on a sombre character, this variation has a spirited tempo and a moving melodic marimba line, unlike the chorale in the others. I found that after watching the video this section is performed well and is similar to the previous rehearsals. The ensemble is settled as the marimba propelled the new 6/8 time signatures and by choosing harder mallets it is easier to obtain the style communicated to the orchestra/conductor [DVD: Chapter 7].

One of the central aspects I discuss throughout this exegesis is the use of techniques, both set and extended. Variation 6 is based on a technique, bowing, that percussionists use across a number of instruments. By taking a violin or bass bow, the percussionist can draw the hair against the bar to create a unique tone. In this variation the bow vibrates each note of the original chorale. This section is where the significant interruption in the music occurs, being evident after I watched and studied the video. This section C is summarised as a trio between the piano, marimba (bowed) and the glockenspiel, with the occasional entrance from the low-end brass. In the sixth bar of this variation the conductor accidentally beats a 6/8 instead of 12/8, obscuring the downbeat for the piano, marimba and glockenspiel.

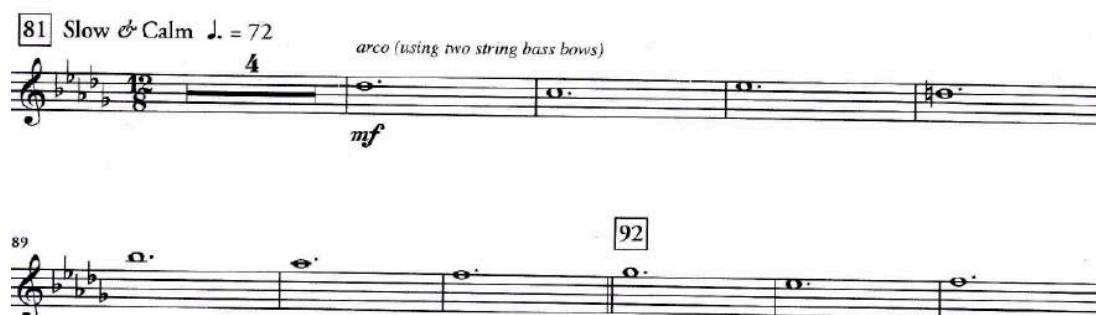


Figure 115: The sixth bar of this variation where the marimba bows a C, the conductor lost his beat. (Source: Bar 81-94, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

Fortuitously the pianist and the percussionist on glockenspiel maintain the pulse, which in turn assists my performance. Unfortunately, in this lapse the wind orchestra does respond or follow the pianist and myself causing a compromise of the first beat of each bar within the ensemble. Though this is a challenge, similar to that of the out of tune instruments, it is the error of the ensemble in not having a musical awareness of the role of the piano and glockenspiel in this part of the score. Ultimately there is nothing I could have done to rectify this section. As observed in the video I tried to indicate to the conductor the first beat, but he was focusing on the entries of the other instruments [DVD: Chapter 8].



Figure 116: The bowing variation and the wind orchestra

During this movement I found my part achieves the colour and level of dynamic contrast I wanted between the variations. However, I felt the ensemble could perform with great attention to tone and a greater awareness of its role throughout the movement. I think this research highlights how important it is for the preparation for all participating at this level and there is an obligation shared by all.

6.8 Movement 3

The final movement of this concerto is similar to the first in style, form and tempo. After several rehearsals with the wind orchestra I found most players enjoyed performing the first and third movements because of its tuneful style. This final movement has themes from the previous two movements as well as newly added thematic material.

Most of the decisions I made in learning this movement are similar to the first movement. One of the enjoyable outcomes from playing this concerto is that I had time to alternate mallets between sections, unlike *Happy Tachyons* and *Djinn*. In the Psathas works, mallet changes occur in the middle of sections and phrases, something that is intimidating when you are playing music at this level. When these mallet changes occur, there is always a risk that you could drop a mallet or pick up the wrong set but not having that burden in the Gillingham allows the focus to be shifted.

As this movement is very similar to the first, it is easy to use the same mallets from the first movement. After watching and comparing the recording of the first and third movements, a connection between the two was present through the use of the same mallets.

In the concerto, Gillingham uses various note durations to create variations in all three movements: Fig. 117.



Figure 117: An example of varying note duration. (Source: Bar 77-82, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

In Fig. 117 Gillingham creates diversity by changing the quavers to triplets, creating yet another variation [DVD: Chapter 9]. Throughout this movement I am satisfied at how well the ensemble took the accompaniment role when I performed variations. Even though in other movements I raise some of the rhythmical roles of the ensemble, in this case it is played securely. I believe the musicians enjoy playing this movement because of its appealing style.

In my analysis of this movement at the start of this chapter, I brought together many comparisons between it and the first movement. Drawing on visual examples from the music, you can see the similarity between the two movements and how the preparation is analogous. Most of the orchestral playing in this movement is energetic and is an enjoyable collaboration for me as a soloist. Throughout rehearsals this is the main movement where I devoted the most time and I believe this is why it was the most secure of the three.

As most concertos have cadenzas included in one of the movements, Gillingham places a small cadenza at the end of the third movement. In preparing this cadenza I

am aware there is not a lot variety in the construction, but it relies on expanded and developed ideas from all three movements shown in Fig. 118 and 119. In hindsight, if I had more time I would have included additional material to this cadenza, a practice which is not uncommon working in this genre [DVD: Chapter 10]: Fig. 118/119.

Figure 118: Opening of the cadenza is based on the opening of the work. (Source: Bar 206-212, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

Figure 119: The ending of the cadenza is an expansion on the sombre chorale from the second movement. (Source: Bar 223-229, *Concerto No.2*. David Gillingham, C-Alan Publications 2008)

The recording demonstrates how I achieve to make similar passages sound very different in the cadenza. In preparing for this performance, I approach this cadenza in several ways. One way I prepare is to play the cadenza from rather clinical approach. I could have played the themes in the cadenza the same way as they appeared in the movements, but for the performance I approach them in various ways. An example of this is seen in Fig. 118 where there is a gradual *accelerando*. In

rehearsals I perform this section with a gradual *accelerando*, gauging it Bar No. 210 and then keeping the quavers at the speed reached. In the performance I decided to ease the *accelerando* into the quavers (Bar No. 210) and then resume *accelerando*, moving it through the quavers to the end of the phrase. I am unsure as to why I thought this to be appropriate, although I knew intuitively I could take this level of creative licence. After watching a video of the cadenza several times, I believe I make a great artistic decision on the spot, showcasing how comfortable I am with the notes through my preparation [DVD: Chapter 11].

The ending of the third movement is very successful, with the wind orchestra perceiving my *presto*. After many rehearsals on this ending I am gratified to hear that the wind orchestra maintained the tempo and settled the pitch. I am also pleased with how the marimba responds to the medium-hard mallets, despite the loud dynamic from the orchestra. I am convinced the marimba responded so well in this because of the informed consideration given to the choice of mallets [DVD: Chapter 12].

When I played the last note of this concerto I knew I had completed the final performance relating to my research. What a journey it has been! In this concerto, Gillingham has written a work that explores all the characteristics making the marimba unique. Whether it is the bowing of the keys or the many variations on a theme, this concerto has been a challenge and rewarding to learn and perform. This chapter is a clear example of how preparation is a crucial factor in the art of performing music, especially when you are working with another soloist and/or an ensemble. Even though Gillingham was not involved in the process, like Psathas, it

is rewarding to be able to make my own informed decisions in the artistic approach I wanted this concerto to follow. With all these directions and decisions I make in the learning process, I am elated with my performance of *Concerto No. 2 for Marimba and Wind Orchestra* by David R. Gillingham.

Conclusion

Through this research, I have undertaken a journey that has been diverse, interesting, inspiring and challenging. With this type of research being a new field inside the world of performing and academia, I have demonstrated how a performer can record through an academic process the way in which their craft is undertaken and executed. I believe the success of this exegesis comes from the importance of the question that I have posed. By looking at the diversity of percussion repertoire I can explore what makes the music unique in the context of Western Art Music. When I began this research, I wanted to draw the attention to what constituted percussion repertoire and how composers use a new instrument (marimba). In addition, I investigated how they could write virtuosic music with playing techniques continually being devised and enhanced. Along with this came the second half of the question: preparation techniques and how they influence performance. Through this half of the question I wanted to show a process that virtuosic percussionists embrace when preparing challenging music and observing how the decisions are reached in the preparation to assist the performance.

By having two contrasting works from the same composer and one work from another, I could discuss the similarities from these works and find a common ground existing in all three. The exegesis explores each work in two ways: the first being the makeup of the work and the preparation decisions that need to happen so that the rehearsals could be productive, leading to a high level of performance; the second being an analysis and a discussion of the performance showing how the preparation decisions were implemented. Alongside both of these views I have incorporated the

composer's comments where they have influenced the preparation and execution of the music.

Through exploring the diversity of percussion repertoire, I have drawn on contrasting works to demonstrate how composers write for this style of music. One of the most interesting things I have discovered in this research is how differently each composer approaches the marimba. In *Happy Tachyons*, an example of this is how Psathas is new to writing for mallet percussion and how sometimes his instructions and musical markings are almost un-realistic. Over a decade later, when he wrote *Djinn*, it is easy to see how his knowledge and approach to writing for the marimba has developed. With having two works from the same composer I have shown and discovered the differences as well as the similarity between the works. Through a similar process to this research, Psathas has worked alongside leading international percussionists to help develop his writing methods between the space of *Happy Tachyons* (1996) and *Djinn* (2012).

I thought it prudent to include a third work so that I could compare the process. In choosing a work from a different composer, I could show the different methods of writing for the marimba as well as showcasing the differences between the composers. An interesting point arising from this comparison is how some composers like to play safe with their music and write using common practices; Gillingham has done this with his marimba concerto. By keeping to a traditional approach on the marimba with minimal extended techniques (bowing) he has written a work that is enjoyable to play, while not extending the performer past their limits. Psathas falls into the opposite category, where composers like to extend not only the

repertoire of an instrument but the way on which it is performed. With techniques such as playing two instruments at once, Psathas enjoys the collaborative process with a percussionist to push his knowledge and technique to its limits, something that is the basis of his two works in my research. The inclusion of both types of composers in this research means you can observe the differences in the music and how the challenges vary, but also how sometimes a universal method can be approached between both. At the conclusion of the research, I believe this exegesis highlights how important and more fluid it is to workshop new music with performers. By having this process, new techniques can be developed as well as gain a greater insight between performer and composer in the vision and direction of the music.

Through this process I have discovered how techniques I mastered in the music of Psathas can benefit the music of Gillingham, such as mallet changes and timbre. Through exploring the possibilities of different mallets inside the Psathas's works, I felt by the time I started preparing the Gillingham I had a strong knowledge of how mallets can create and enhance passages and sections of music. Most percussionists select mallets on the basis of what sounds good to their ear, whereas through this research I have shown how the composer's intentions are important in this selection process. In learning Psathas music with his instructions on sound, it was easy for me to decide what mallets would enhance his direction, something that is commonly talked about between percussionists and not composer-performer. I found having this idea in my mind made it easy to prepare the Gillingham work, deciding what mallets would make his writing and direction come across the best in performance and not just what sounded good to me. I believe I have discovered an important aspect of percussion writing that is not being explored by performers but, if

adhered to, the overall mood and direction of a work is better realised from this concept.

With the second half of my question looking at how preparation decisions influence performance, I discovered the process I used in all three works made the learning and execution of the music easier. I found that, by analysing the work in the way I have, I have developed a broad understanding of the work before I commenced the preparation. By identifying problematic areas in each work I resolved the problem before it became an issue in rehearsals. An excellent example of how these decisions influenced the performance is observed throughout *Djinn*. In this concerto I had three other areas I needed to accommodate and work with: the composer, the conductor and the ensemble. It was important to make sure that in the preparation I had worked out what was needed to happen to maintain the flow in rehearsals. In the first movement of this concerto I contacted Psathas about the role of the marimba and where it should be in the ensemble. As I discussed in the *Djinn* chapter, Psathas wanted the marimba to sit lightly on top of the orchestra with no real sense of pulse. This is challenging, as the marimba is the only constant pulse throughout most sections of this movement. I had dialogue with the conductor as to how this would work. After discussions, the conductor and I decided on raising the tempo slightly and placing the rhythmical impetus in the strings; something you would not necessarily do after studying the score, considering the rhythmical writing for the marimba. Through this process I made the composer, the conductor and the orchestra happy, which made the rehearsal process smooth and efficient.

There were some cases where decisions I had made in preparation were not entirely successful in the performance. An example was in the performance of *Djinn*. During the preparation stage I decided what every tempo should be and how it would be executed. As I discuss in the *Djinn* chapter, the conductor changed some of these tempos in a string rehearsal just before the performance because he felt that these slightly under tempos would be easier to realise. Not including me in this process made it hard for me to adjust to these new tempos when it came to the actual performance. Luckily, when I prepare music for performance I learn it at extremely slow tempos as well as almost impossibly fast tempos, so the transition is not as much of a challenge as it could have been. I believe this error in judgement came down the fact that the conductor did not take into account how important these preparation decisions are and how it not only effects him, but it changes my view, the ensemble's and most importantly the composer's. Psathas was not happy with this tempo change, as it was not part of my preparation and analysis of the music.

On looking at the positives and negatives of this approach to preparation, it is clear to see that the positives substantially outweigh the negatives. I found when I performed *Happy Tachyons* that the decisions I made carried all the way through to the performance, with my view of sections not changing after it had been consolidated. I believe the importance I place on preparing and not changing sections helps with the mental anguish of performing, especially in a challenging work such as *Happy Tachyons*. It is an amazing sensation to be able to look down at my hands and not worry about sections that are coming up because my approach made the performing of the work more like a map, piecing together sections to get to the final destination. This approach helped in the way I memorise the work because

by the time of the performance I knew every note and where it had to be and how it fit in the overall scheme of the music. When I perform this work, the main thought going through my mind is what is the next process and how can I make the decision I made in preparation become a reality in this performance. An example of this is the sudden mallet changes and techniques used.

On reading this exegesis it could be assumed that I became a puppet for Psathas because I was only taking into account his direction of his music, not my own creative licence. Where it is important to understand the composer's intentions and vision, it is equally as important to maintain the creative licence as a performer. Most composers understand this and will hand the work over willingly to see what the performer can do with the notes and the performance of the work. By incorporating Psathas in this process I could show how a beneficial collaboration can occur between performer and composer and ultimately how it can grow. In looking at Psathas's comments regarding *Djinn*, this exegesis shows how he did allow me much room to place my own creative direction on his music. This can be seen in the chapter where I talk about my use of rubato in his cadenzas and how he thought it was too liberal. This viewpoint is completely different when you look at his comments towards my performance of *Happy Tachyons*. When I sent through the performance of *Djinn* to him, he responded with positive feedback and highlighted areas that need to be worked on, something I believe came from him not allowing me enough creative licence with his music. After placing more emphasis on the decisions I made in the preparation, such as mallets to enhance the phrases and developing a technique to play both vibraphone and marimba at the same time, I was concerned he would not allow me to impress my own vision on his work. After sending Psathas

the recording of the first performance of *Happy Tachyons* I waited a considerable length of time to receive his feedback. In his response Psathas gave me the best compliment I have ever had from a composer, especially one with such an international calibre:

Hi David,

I feel terrible it's taken so long to reply. I wanted to take some time to watch and hear the video so I could respond properly. Firstly, I can tell you that I was absolutely blown away, Congratulations. It's a superhuman effort and incredible to watch, I was really impressed. You have played this work to the exact specifics I desire, thank you so much for championing this incredibly difficult work. I can't wait to see you perform it live⁷².

Even though I performed this work using Psathas's vision and directions, I made changes I believed would enhance certain aspects of how it can be performed. In *Djinn* I had also done this but there was not the rapport between the composer and myself, as this developed over a period of time. I firmly believe this rapport arose out of a professional respect for my commitment to his music. The music was performed with the composer's instructions as well as my own creative licence, resulting in an amazing performance of a virtuosic and challenging work.

With percussion repertoire being a popular new medium for composers, it is easy to see through this exegesis how diverse the range of techniques, instruments and methods of composition are. By setting out to show and explore the diversity of this repertoire, I have presented how different composers approach writing for mallet percussion, what their view of this style of music is and what it is possible to perform.

⁷² John Psathas (September 11th 2012)

With composers like Gillingham writing challenging but safe music and Psathas writing new virtuosic music incorporating new techniques and concepts, the coming decades will prove to be exciting in shaping the genre of percussion performance in western art music. To be able to perform this challenging music, the process in which percussionists learn the repertoire is vital in the performance of the work. This exegesis shows the common decisions percussionists make in their approach to the work, the composer's understanding, and what happens when other musicians are involved in the performance. Through the question I have asked at the start of this exegesis, I can confirm that the preparation decisions influence the performance in the greater context because you have to meet the composer's intentions as well as including your own creative vision to the work. With this concept of preparation in mind, it is easy to see how a percussionist can work alongside a composer to write and perform some of the most diverse music in western art culture.

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Appendix 1

Recital Programs

An Evening of Stories Through Music

15th December 2011



Performed works and program notes

March for Solo Timpani – Elliot Carter

Carter wrote his Eight Pieces for timpani throughout the 1950's and 60's. Considered to be one of the most popular professional solo timpani works, all eight pieces are contrasting and different in style and technique. Not to be played in any specific order, his eighth piece *March* is considered a great concert opener as it shows many abstract techniques that timpanist have to use. Two march rhythms of contrasting tempos are superimposed, one played with the butts, the other with the heads of the mallets. These produce musical ideas expanded in the middle section. This is the basis of this work as the performer uses speed and agility to perform a series of contrasting polyrhythms. The performer starts to place mutes on the drums so the whole march comes to a sudden and abrupt stop. Considered a pioneering work for the percussion genre, Elliot Carter has written a piece that highlights percussionist's skills in sound and rhythm, as well abstract rhythmical techniques like metric modulation. This work was dedicated to the late Saul Goodman, former timpanist of the New

York Philharmonic Orchestra.

Rebellion for Trombone Piano and Percussion – Stephen Rush

Rebellion is about an urge, not a cause. It is a small portrait of energy, capsule of the feeling that an urgent need for change is felt or foreseen, and the beginnings of that change are even portrayed in the final bombast of this piece. The chaotic nature of the work invokes the ideas of a rebellion, people storming around in a mad rush trying to achieve or destroy a part of society. All in all, Stephen Rush's Rebellion is a feast of sound that provides an array of ideas and themes. Each instrument explores multiple layers of sound with the piano playing with a chain on the strings, the trombonist screaming through his instrument and the percussionist performing on a wide variety of instruments including 8 unspecific metal sounds. This challenging work features multi metric bars and advanced rhythms that pull the ensemble into a powerful force.

The Dolls Death and the New Doll – Tchaikovsky arranged David Lockeridge

Tchaikovsky composed these small works as part of his Album of the Young, which he wrote for his children, Schuman and other composer's wrote similar ideas. Each small tune was originally written for piano and features challenging and comprehensive western harmony. By arranging these tunes for four mallets, percussionists can explore classical music where the rhythmical role is not the primary drive of the repertoire, something percussionists traditionally face. These works explore the unique ability the marimba has to perform array of styles and how percussionists can adapt the marimba to classical works

The Dolls Death focuses around the story of a child who has lost a doll and faces the hardship a child does when losing something that is so important in their world. Somewhat like a funeral procession, this dark little tune passes through some clever writing and creates tension through its voices and grave tempo. We see that in The New Doll the child has been given a new face to fill the void that the last doll had left. When we think about the western world and how children can simply lose a doll and have it replaced, in Russia at the time of Tchaikovsky children did not have access to wealth, and these material possessions were everything to them. This short but catchy tune shows the favor a child has in playing with a new and interesting doll and the childlike behavior we all sometimes feel.

Arabic Dances for Percussion and Tuba – Scott Meister

Composed in three movements, Arabic Dances explores the music of the Middle East and the unique rhythmic value that makes the music unique. Each movement is named after a

tone row in the Arabian Maqam, a series of notes used to create moods of music; in this case each movement evokes a different emotion. The Arabian Maqam is not in equal temperament (chromatic scale) and follows a contrasting series of tones that creates the sound of Arabic Music.

Saba: This movement is based on the Saba series, which draws on sadness and pain. Like an Arabic version of Bolero, the percussion sets a polyrhythmic groove with the tuba performing melodies from the Saba over.

Bayati: Like a binary form in western music, Bayati is split into two sections with the second section being of a consistent pulse with unison and polyrhythmic melodies playing against each other. The first and last section is scattered and features no identified pulse. The Bayati is about Joy and happiness and explores an image of people dancing in a circle, usually to celebrate the birth of a child.

Hijaz: Close to the Western Phrygian scale, western composers commonly use this to explore Arabic ideas in western music use. The Hijaz is used to evoke images of far away deserts and the sheer emptiness that is within. Based on a 6/8 rhythm, this movement is more of a western approach to Arabic music, but still holds some fundamentals of the Hijaz system.

Saeta for Solo Timpani – Elliot Carter

Elliot Carter is strict on how these works should be performed as each work has a series of instructions to get the best possible sounds intended. The main instruction is that all the pieces are contrasting and should be performed as individual pieces, if possible split the pieces up as each work has a different character. Carter also requests that no performance should feature more than three of the pieces, as this could contradict the uniqueness of each piece. Saeta was the first of the Eight Pieces for Timpani that Carter composed in the 1950's, featuring ideas that were not commonly used on the timpani. Striking the centre of the drum creates an accompaniment that sings out the melody played on the other drums. Notes come and go like fog as the melody slowly disappears and makes way for the new motif through clever uses of metric modulation. The most expressive of all the pieces, Saeta uses metric modulation to jump between the sections of the piece, with Carter calling it more of a temporal modulation. The Saeta is a Andalusian song of improvisatory character sung during an outdoor religious procession, usually at Easter; said to be the descendent of a rain ceremony during which an arrow (saeta) was shot into the clouds to release the rain. This piece was dedicated to the late Al Howard, the former timpanist of the Columbia Symphony

Orchestra.

Djinn for Marimba and Chamber Orchestra – John Psathas

Djinn / Genie:

- supernatural creature able to appear in human form and to possess humans.
- Djinn are made of fire, man is made of clay, angels created of light.

1. Pandora

Each god helped create her by giving her seductive gifts. Pandora opened a jar releasing all the evils of mankind leaving only Hope inside.

”The immortals know no care, yet the lot they spin for man is full of sorrow; on the floor of Zeus' palace there stand two urns, the one filled with evil gifts, and the other with good ones. He for whom Zeus the lord of thunder mixes the gifts he sends, will meet now with good and now with evil fortune.” Homer, Iliad.

2. Labyrinth

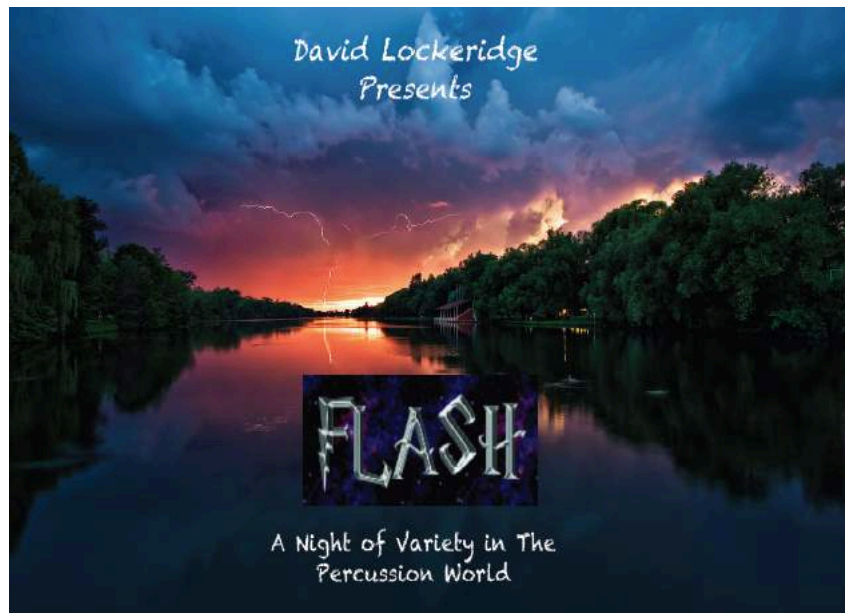
Labyrinths are symbols that speak to deep levels of consciousness. The trip into the center and out again mirrors our lives and our personal journeys. The first few steps might be hesitant. With each successive turn that takes us closer to, then farther from the center, we examine our choices until the last turn takes us into the still, motionless center. The center of a labyrinth is the center of the Mystery. For some, it can be the largest, deepest, most profound Mystery; others find only their own shadow, or emptiness. In a labyrinth, the way out is the way in. There's no wrong turn, or wrong choice. It is surrendering to the journey itself. We emerge from the last turn blinking, astonished. Much of the marimba writing in this movement was inspired by the Oud/Outi and Setar playing of Vasili Papanikolaou, Dariush Tala'i, Xaik Yiazitzian - Antonis Aperghis, Rahim Alhaj.

3. Out-Dreaming the Genie

Echoes of the warm safe danger conjured forth by the music of childhood TV shows, in which we may have been in the land of the giants, lost in space, or on a magic carpet with an inscrutable genie, but we knew always that everything was ok wasn't it? Stories and images that convinced youthful us we would turn our crawling into walking, then into running, and finally that we would lift up from the earth and fly free.

Flash

16th August 2012



Performed works and program notes

Moto Perpetuo for Solo Timpani – Elliot Carter

This is the second of Eight Pieces composed for four timpani by Elliot Carter between 1949 and 1966. Composed in 1952, Elliot Carter has written this work in mind to open or close any type of concert. Only taking 3 minutes to play, Moto Perpetuo is made up of a rapid pattern of notes all of equal length. Using all the techniques that make these works for timpani unique, striking the centre of the timpani and small amounts of metric modulation are present throughout. The ever changing accentuation creates small melodic motifs inside a pounding consistent pulse almost thunder like.

Coil for Solo Vibraphone – Gerard Brophy

Composed in 1996 by Gerard Brophy, Coil embraces the minimalistic characteristics that come naturally to Brophy's style. Originally composed for the Swedish percussionist Spaniard Miquel Berna, Coil embraces both Jazz rhythm and harmonic structure. The title describes the character of little motives and the way that they twist and turn around each other as the piece pushes remorsefully to its conclusion. Coil shows exactly how a composer can take a motif and turn it in multiple ways to get different ideas. Featuring contrasting sections, Coil explores both fast paced runs as well as close harmonic choral like sections that join all the sections together. One of the hardest works written for Vibraphone, Coil highlights the skills and techniques used in performing minimalistic works on the Vibraphone. Coil is a great example of where Australian percussion composition is placed in

the world, with Brophy being considered one of Australia's most celebrated composers in both the percussion and chamber music worlds.

Improvisation for Solo Timpani – Elliot Carter

This is the fifth timpani work in Elliot Carter's Eight works for timpani written between 1944 and 1996. This work is beloved by percussionists and holds a strong place in both the practice room and the concert hall. This work features metric and polyrhythmic complexities that need to be played with virtuosic flare. The opening phrase of this work furnishes material that has numerous variations throughout. Elliot uses his technique pioneered in the 1950's, metric modulation, to create the sectional changes throughout. An enjoyable piece to play, Improvisation moves between ideas with sudden and oncoming tempos.

Saraband and minuets from the Second Cello Suite – Bach

The Six Suites for Unaccompanied Cello by Bach is some of the most performed and recognizable solo compositions ever written. The suites contain a great variety of technical devices, a wide emotional range, and some of Bach's most compelling voice interactions and conversations. It is their intimacy, however, that has made the suites amongst Bach's most popular works today, resulting in their different recorded interpretations being fiercely defended by their respective advocates.

Sarabands are known for being the chorale part of a suite. This Saraband explores the emotions and feelings of the dminor key. This movement features adaptation of Cello techniques onto the marimba, with broken chords and long bows, this movement is all about the melody, and the power of drawing out the sound of the instrument.

Both minuets have distinctive characteristics, as well as intense harmonic structures, such as the Neapolitan 6th. These two movements are all about the dance; they bounce around with a step like feel making the harmonic progression talk with melodic motifs. By adapting this work to the marimba there is no greater admiration to the father of modern music than performing it on an instrument developed only in the last seventy years.

Trance Ripples for Solo Marimba – Gerard Brophy

This short work for marimba was written for Evelyn Glennie in 2002 after Gerard's return after a long absence from the Australian composing scene. This work embodies all the rhythmic and cell like writing the Gerard is so well known for. Like his work Coil, Trance Ripples explores the idea of a rock hitting a pond and how the water ripples out. With a consistent three pulse, the work enters a trance like state when it dances around three

octaves of the marimba and lets the audience relax with an easy to listen concept. A small, challenging but beautiful work, Trance Ripples is almost therapeutic and just a pleasure to listen to.

Diversions for Marimba and Alto Saxophone – William Penn

This two-movement work written for alto saxophone and marimba is a true export of the new idea of composing for instruments that are usually not paired. Written in Carolina by William Penn, Diversions embraces the fast passed nature of both the percussionist and the saxophonist as both movements are marked Molto Perpetuo.

Both movements have inter-connecting motifs that dart inside each other and meet in brief unison at points. The first molto perpetuo features a beautifully spoken legato passage from the sax underneath a strong and dural marimba part. The last molto perpetuo is based on concepts that could be linked to Steve Reich and his peers from the 1970's. A fast movement that draws on the contrasting timbre of both instruments, this movement darts from the start to the end. A true molto perpetuo

Happy Tachyons for Marimba Vibraphone and Piano (tape) – John Psathas

Composed at the request of Evelyn Glennie, the technical demands of Happy Tachyons are deliberately pitched at the edge of what is humanly possible, particularly the passages where the percussionist is required to play both vibes and marimba simultaneously. The exuberant high spirits, which pervade the piece, reflect the fact that during its composition Carla and I were expecting our first child, Emanuel, who was busy preparing his entrance into this world.

Happy Tachyons relies on high levels of rhythmic energy and drive, thrilling in result. Based on the hypothetical Tachyon particle that could move faster than light, as well as hold the mystery to time travel. The piece is intense and on edge for 227 bars and defiantly a battery drainer on any performer.

An Afternoon with the University of Newcastle Wind Orchestra

11th November 2012

Concerto No. 2 for Marimba – David R. Gillingham

The work exploits the full range of the technical and expressive ability of the five-octave concert grand marimba. It is cast in the standard three-movement format. The first movement uses sonata-rondo form and begins with a slow introduction and quasi-cadenza by the marimba. An animated first theme follows in G-minor accompanied by clarinets and tambourine. A contrasting second theme area follows featuring chromatic mediant progressions and descending chromatic lines. The return of the first theme utilizes a slightly different accompaniment. The development section reworks all the thematic material in different guises. The recapitulation presents the first theme, verbatim, as it was in the exposition. The second theme, however, changes the mode to major. The return alternates the marimba on the theme with the winds playing the theme in augmentation. The marimba quietly ends the movement with an ascending and descending arpeggiated passage.

The second movement is a chaconne with eight variations. The marimba states a rather haunting chorale-like melody in Bb minor. The first variation features the low brass on the chaconne theme with the marimba on the variation. Variation II uses marimba, clarinet, bells, and vibraphone and Variation III uses marimba, oboe, and horns. Cascading muted brass against the augmented chaconne theme in the flutes and clarinets are indicative of Variation IV. Variation V changes the slow pace to fast using marimba, brass, timpani, and bells. A haunting Variation VI utilizes bowed marimba on the chaconne theme accompanied by piano and bells. Variation VII features the low brass on the chaconne theme against triplets in the upper brass. Rolled arpeggiated chords highlight Variation VIII along with a solo alto saxophone on the second half of the variation. A somber coda brings the movement to a close.

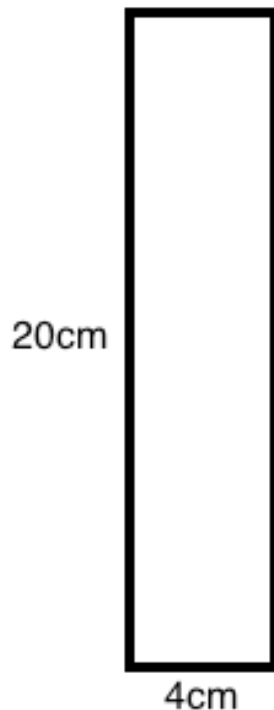
The third movement, like the first, is in sonata-rondo design and is cyclic, bringing back and combining the thematic material of the first and second movements. The first theme, in D-minor, is angular and spirited, accompanied by clarinets and tambourine (reminiscent of Mvt. I). The second theme brings back the second theme of the first movement followed by the return of the first theme, now accompanied by saxophones and tambourine. The development combines and works thematic material from all three movements of the concerto. The recapitulation begins with the bassoons on the first theme, followed by the horns/trumpets and finally, the marimba. The second theme brings back the chaconne of the second movement, this time in major with the marimba accompanying using rhythmic material taken from the first theme of the third movement. There is no formal return of the first theme. Instead, the marimba plays a cadenza in which the first theme material and the second movement chaconne are developed. A galloping presto (coda) follows, ending the movement in D major.

Appendix 2

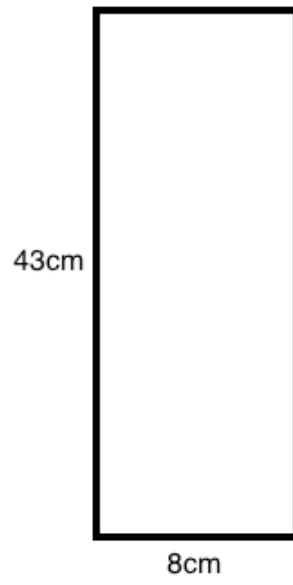
Bar Width

In these sections, the percussionist has to perform on the marimba and the vibraphone at the same time and it is important to understand the different sizes of the bars of each instrument. In these sections the percussionist plays the lowest bars of the marimba and the highest bars of the vibraphone concurrently. The below specifications are for the dimensions of the bars that need to be played at the same time as well as the distance between the first interval in this section.

Vibraphone



Distance of first interval 14cm



Distance of first interval 26cm

Appendix 3

Grips

Stevens Grip



- Developed by marimbist Leigh Howard Stevens in the 1970s
- In the Stevens technique, the mallets are held loosely. The two outside mallets are gripped with the little and ring fingers; the inside mallets are cantilevered between the flesh of the palm at the base of the thumb and the tip of the middle finger.
- Interval changes are accomplished by moving the inside and outside mallets independently of one another, as described in Stevens' book, *Method of Movement for Marimba*. As the interval widens, the inside mallet rolls between the thumb and index finger, such that the index finger moves from underneath to the side of the shaft and the middle finger becomes the fulcrum of the cantilever. The outside mallet is moved principally with the little and ring fingers, although the first section of the middle finger follows along and

remains in light contact. When properly used, this grip causes no tension on the hand muscles.

Burton Grip



- Developed by Jazz vibraphonist Gary Burton
- Seen with the palm facing upwards, the inside mallet is placed and crossed over the outside mallet. The end of the inside mallet is held with little finger and the outside mallet is held between index and middle finger. The thumb is generally placed inside the inside mallet but it sometimes is placed between the mallets to widen the interval. The inner mallet can be separately articulated (the inner mallets are generally used for melodies) by gripping it with the index finger and the thumb and pivoting it over the outer mallet.
- When necessary, the outer mallet can be separately articulated by widening the interval so the mallets come as close to a right angle as possible and giving a swift downward flick with the wrist and middle and index fingers.

Appendix 4

Grant Information

On requesting feedback from the Australia Council, I found out that my budget had too much information involved in it, confusing the music board as to where each aspect of the funding would be going. I was told that the quality of performance material I submitted was high and that they think I will have a successful career as a solo percussionist and that I should apply for the same funding again with a new budget. The main performance example I chose to submit was the recording of *Djinn* from this research. Unfortunately the next round of funding applications would mean that I could not perform this new concerto inside my research time frame and that I would have to look for another work.

The new application round for funding closed in the middle of June 2012 with my new application being submitted with an updated budget and performance material. Instead of submitting the recordings of *Djinn* again, I decided to submit rehearsals from my upcoming performance of *Happy Tachyons*. I found out in September that my application had been successful with a grant amount of \$13 000 to go to Gerard Brophy to write a new marimba concerto with Wind Orchestra. This was an extremely competitive round of over 300 applications with only 21 being awarded. The Australia Council acknowledged that I was a young and up-coming musician with a promising career and that they would like to help me in every financial way they could. They were amazed at *Happy Tachyons* and noted that this level of virtuosity in playing and memorisation is unique. This work will have its world

premiere in 2013 and will be the basis of my further PHD research. As my research is looking at the uniqueness of percussion performance, my application showed how new the percussion genre is, especially marimba repertoire. This research has helped in setting up the opportunities for new commissioned music as well as bringing repertoire from New Zealand, Europe and America to Australian audiences.

Appendix 5

Sticking

Method of Movement for Marimba by marimbist Leigh Howard Stevens is perhaps the most in depth marimba method book on the art of four-mallet marimba playing. *Method of Movement* contains 15 chapters covering grip, strokes, shifts, tone production, interval changes, and efficient movement around the instrument.

Each one of these chapters looks at different techniques used to play the marimba with four mallets, such as the double lateral stroke. The double lateral stroke requires one mallet in the hand to strike the instrument and is followed immediately by the other mallet (for example, 1-2; or 2-1; or 3-4; or 4-3). On the surface, it seems that this would simply involve two single, independent strokes, but in reality this is a completely different motion. Because the second mallet is striking immediately after the first one, the down-stroke of the first mallet must also include the preparation stroke of the second mallet so that it is ready to strike the instrument. The combined movement is almost like a scooping motion to the left or the right (like scooping ice cream out of a container). The key to this stroke type is getting both mallets to produce the same volume of attack. This technique is used commonly to perform acciaccaturas.



The above picture demonstrates the double lateral stroke with mallet number 4 striking the instrument and number 3 closely following.

The below example is from Method of Movement where Leigh Stevens discusses the three different stages of striking with the mallet, preparation, stroke and recovery.

IX Stroke Efficiency and Accuracy

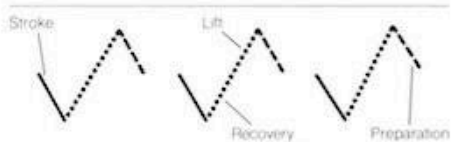
Although there is great variation in terminology, the two most often **recommended** stroking methods are:

1. The stroke with preparation (up – down)
2. The stroke with lift (down – up)

Using solid lines to represent the actual stroke, dotted lines to represent recovery, dashed lines to represent preparation, and the left to right axis to represent time, a series of these strokes would be diagrammed like this:



Stroke with Preparation



Stroke with Lift

A widely used stroking method is a "synthesis" of the two previous strokes:



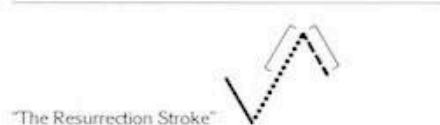
Stroke with Preparation and Lift

The student is encouraged to take a mallet in hand and try a few of each of these strokes – they are difficult to visualize on paper but instantly recognizable when performed.

All three of these strokes **waste motion**. That is, the mallet heads move farther than is necessary to accomplish the stroke. The following diagrams of the same three strokes (with their appropriate nicknames) have the unnecessary motions in brackets.



"The Prep. Stroke"



"The Resurrection Stroke"



"The Academic"

When the unnecessary motions are not drawn, all three strokes look very much like:



This piston or cyclic motion is the general stroking method recommended by the author.

There is nothing new or unusual about the piston stroke. Even players who advocate the use of preparation or lift routinely use a piston style stroke when playing fast passages. (There is no time between rapid stroke repetitions for preparation or lift.) Rather than have a "slow tempo stroke" and a "fast tempo stroke", this author strongly recommends that the marimbist use the same piston stroking method in practice and slow tempi as in performance and fast tempi. To do otherwise is to cultivate the common problem of "losing the feel" of a motion as speed increases.

The diagrams and discussion above demonstrate the superior distance efficiency of the piston stroke. The preceding paragraph demonstrates the superior **consistency** of the piston stroke. There are two additional reasons why the piston stroke is the best general stroking method: **accuracy** and **momentum** efficiency.