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2012

New Zealand School of Music

Master of Music in Composition

in fulfillment of the requirements for the degree of

submitted to the New Zealand School of Music

A thesis and portfolio

Anton Killin

by

Projects in Cross-Cultural Music Composition
The creation of music cross-culturally is a rich and evolving field in contemporary music studies. This thesis examines the practice of cross-cultural music composition through the lens of the Western art music tradition and my own perspective as a composer representing that tradition. This portfolio comprises original compositions for various musical instrumentations including Indonesian gamelan and Chinese yangqin, and which utilize a range of technical and contextual approaches that are described in the thesis. Reference is made to historic precedents, including a case study of one composer (Lou Harrison), in order to place this work in context.

This thesis explores the practice of cross-cultural music composition through the lens of the Western art music tradition and my own perspective as a composer representing that tradition. The creation of music cross-culturally is a rich and evolving field in contemporary music studies.
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INTRODUCING THE NON-WESTERN INSTRUMENTS AND CONTEXTS

CHAPTER ONE

INTRODUCTION

The purpose of this thesis is to support the new works in my composition portfolio. The motivation of much of my composition is twofold. First, I explore the creative possibilities that arise from combining instruments of the Indonesian gamelan with instruments from the West (including electronic media) in new compositions. Second, I incorporate recordings of Western and non-Western instruments, especially gamelan, in my portfolio. My portfolio also includes a Chinese dulcimer, a short piano piece, and an electroacoustic piece composed for the Western and non-Western instruments, especially gamelan, in my portfolio. I explore the creative possibilities that arise from combining instruments of the Indonesian gamelan with instruments from the West.
The second appendix surveys the history of the practice of incorporating folk and non-Western musical materials in the Western art music tradition, placing my composition and research in its historic context. The third appendix provides support for my development in Chapter Two of a pluralist aesthetic, though it is based on Western ideas of philosophy.

It is important to acknowledge several composers whose cross-cultural music composition has informed my own. In this respect, I am most indebted to my primary supervisor Jack Body, my secondary supervisor Michael Norris, and David Sanders and Gareth Farr.

It is important to note that my own experiences of non-Western music, especially learning to play Javanese and Balinese gamelan, come from studying at university in New Zealand. See Chapter 2 Section 1 for a discussion of my own involvement in gamelan music making. My gamelan teachers, Budi S. Putra and I Wayan Gde Yudane, to whom I am greatly indebted, are indigenous maestros of Javanese and Balinese gamelan respectively. I spent three weeks in Indonesia (mostly Yogyakarta, Jakarta, and Solo) with my gamelan teachers (and other fellow students) in 2007. As a composer and researcher I am firmly placed within the context of a composer situated within that tradition. My offerings in this thesis are thus from the perspective of a composer working within the Western art music tradition.

It is also important to acknowledge several composers whose cross-cultural music composition has informed my own. In this respect, I am most indebted to my primary supervisor Jack Body, my secondary supervisor Michael Norris, and David Sanders and Gareth Farr.
II. Indonesian gamelan in New Zealand

Gamelan first arrived in New Zealand when, in 1975, ethnomusicologist Allan Thomas imported an antique set of instruments from Cirebon, northern Java, to Victoria University of Wellington's music department, now the New Zealand School of Music.3  The gamelan set was used to support ethnomusicology courses and to teach traditional repertoire. A performing ensemble was soon formed, initially directed by Thomas. New compositions by some New Zealand composers were added to the gamelan, for whatever reason, many New Zealand composers have indeed composed music for gamelan. New Zealand composers and because other composers were attracted to the gamelan for whatever reason, many

Because Body's persuasive enthusiasm for the ensemble spread among his composition students, the gamelan was continued by Jack Body.3

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Emma Carlé, Steve MacDonald, Ross Carey, David 'Treefrog' Sanders, Megan Collins, and myself have all had compositions released on CD by Gamelan Padhang Moncar. Body's 2009 concert series, 'Gong Crazy', which celebrated the end of his 30 years of teaching at Victoria University of Wellington/New Zealand School of Music, comprised new works involving gamelan by Helen Bowater, Ross Harris, John Psathas, Andrzej Nowicki, Irwan Harahap, Megan Collins, Gareth Farr, Leon DeLorenzo, Thomas Lambert, David 'Treefrog' Sanders, Jack Body and I Wayan Gde Yudane, and myself. Gamelan Padhang Moncar has released Music for Orchestra (1983), which features melodic material transcribed from solo saluang. Furthermore, Body has written Indonesian-inspired works such as the second movement from 

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Moreover, the work's first movement is based on a transcription of Greek folk music, and the work's third movement is based on a transcription of Indian street music. On his approach, Body explains his attempt to capture something of the style and architecture of various recordings of Greek and Indian street music

Moreover, the work's first movement is based on a transcription of Greek folk music, and the work's third movement is based on a transcription of Indian street music. On his approach, Body explains his attempt to capture something of the style and architecture of various recordings of Greek and Indian street music.
I believe musical composition should be the exploration of new worlds of aural sensibility. This is why I 'travel' a great deal, musically speaking, even when at home, by listening obsessively to recordings of the music of other cultures.7

Consider several of Body's other pieces:

After Bach (2001) combines Javanese gamelan with massed violas and four viola soloists. Campur Sari (1996) comprises new music composed for string quartet and traditional music played by a master Javanese musician (gender, kendhang and voice). In Polish Folk Dances (2007), Body's transcriptions of Polish folk melodies are played by a clarinet, and accompanied by Javanese gamelan which switches between pelog and slendro scales, harmonising the tunes with a skewed temperament approximating that of the West. Another prominent New Zealand composer who has worked extensively with gamelan is Gareth Farr. Johnson (2008) notes the gamelan influence in pieces such as From the Depths Sound the Great Sea Gongs, where Body’s transcriptions of traditional music in new compositions reflect his use of pelog and slendro scales. A House in Bali (2009) tells of various amusing experiences of Balinese life, by narrating passages from Colin McPhee’s seminal text of the same name, reflecting on his living there in 1930s. Body carefully ornaments and punctuates McPhee’s accounts by interweaving new music composed for string quartet and sheng (Chinese mouth organ), with the new music composed for Balinese gamelan by the work’s co-author (and Balinese gamelan maestro), I Wayan Gde Yudane.

Farr is very interested in combining gamelan with Western instruments, and even considers it a "social analogy" by combining musics of different cultures together, believing he is contributing to the strength of New Zealand's cultural landscape.

Before gamelan even arrived in New Zealand, Douglas Lilburn, inspired by the sounds of Javanese gamelan, composed *Gamelan for Six Hands* (1965) for three players at a piano, which closely approaches the texture of Javanese gamelan with low notes reminiscent of gongs, and a core melody which is decorated in a gamelan-like fashion.

Johnson (2008) also notes that prominent New Zealand composer Anthony Ritchie shows a gamelan influence in pieces such as *Gamelan* (1993), *Echoes* (2009), and *24 Preludes* (2002), which closely approaches the textures of Javanese gamelan, with low notes reminiscent of gongs, and a core melody which is decorated in a gamelan-like fashion.

The topic of cultural appropriation is pursued in Chapter 2 Section III.
New Zealand's most prominent Western art music composers. My works follow in their footsteps.


Gamelan music has played a substantial role in the influences and musical directions of many of New Zealand's most prominent Western art music composers. My works follow in their footsteps.


Gamelan music is a stratified, multi-level polyphony. The "balungan" instruments play a line which acts as the backbone of the piece, which the elaborating instruments ornament in specific ways. Structural instruments mark the colotomic structure of the piece's form, and the drums set the tempo, guide tempo changes, and give structural cues. Often, gamelan accompanies a female singer (pesindhen) or a male chorus (gerong). Traditionally, the "balungan" is learned aurally and memorised. Those playing more advanced instruments must have also memorised the appropriate elaborations or structural patterns relevant to their instrument. Even now most professional gamelan ensembles still memorise their music for performances, but use cipher notation as an aid in teaching and rehearsals (see Sumarsam, 2002). For example, here is the first line of Ketawang Wigena [laras] pelog [pathet] nem, as it is performed by Gamelan Padhang Moncar (sometimes minor regional differences occur in Javanese repertoire, especially between Solo and Yogyakarta):
The piece's full title, *Ketawang Wigena [laras] pelog [pathet]*, as well as containing its individual title, *Wigena* (sad, sorrowful), 13 gives its form/colotomic structure (*bentuk*—which in this case is *ketawang*—indicating where the structure-marking instruments need to play in relation to the *balungan*, and indicating to the *kendhang* player which style to drum in), its scale (*laras*—which in this case is *pelog*), and its mode (*pathet*—which in this case is *nem*). Both scales, *slendro* and *pelog*, are conventionally organised into three *pathet* each, which have different 'cadential' patterns, ranges, and also they tend to emphasise and avoid certain pitches, relevant to that *pathet* (see Spiller, 2008). Players sit cross-legged and for this reason, perform without wearing shoes. It is also customary never to step over the instruments, but rather to walk around them—a sign of respect for the *gamelan*. These two customs are still upheld today.

In the past, the performers who play instruments that require just a single beater (*tabuh*) hold it in their right hand—even today, Indonesians are disconcerted by seeing performers play gamelan left-handed (Body, pers. comm., 2010).

The instruments of the Javanese *gamelan* span several octaves:

![Table of instruments that make up the Javanese gamelan from Pickvance (2005) pp. 104-105.](image)

In the following discussion of Javanese *gamelan* instruments, the ranges given are specific to the instruments of *Gamelan Padhang Moncar*. Not all of the instruments listed in the table above in the following discussion of Javanese *gamelan* instruments, the ranges given are specific to the instruments of *Gamelan Padhang Moncar*. Not all of the instruments listed in the table above appear in this set and particularly featuring the exact registers may vary. Curious readers may see Appendix IV for recordings of traditional repertoire.

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The demung and saron play a traditional piece's balungan line, and are struck with a wooden beater. As the performer strikes a note, he/she dampens the previous note with his/her other hand. The bronze keys are suspended over a wooden body with a hollowed cavity. For some pieces, the saron and demung play imbal-imbalan interlocking patterns (short iterated scalar motifs that are divided up between two players – like a hocket). There are usually multiple demung and saron in a set of gamelan instruments.

The pitches given in this thesis are a representation of a Western approximation (see further below for an explanation). Dots above/below a number denote pitches of higher/lower octaves.
Like the demung and saron, the slenthem plays the balungan. It is struck with a wooden beater that has been padded with material to soften the sound, and is dampened in the same way as the other balungan instruments. The bronze keys are suspended over resonating tubes, which have been padded with material to soften the sound and dampened in the same way as the other balungan. In some gamelan pieces, the slenthem plays a syncopated technique, pinjalan, playing one note higher than the balungan on its off-beat, resulting in an interlocking resultant melody.

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Thus the slower the balungan plays, the faster the peking plays – and the same goes for the other elaborating instruments.

*Fig. 1.12: Relationship of bonang to balungan*

A bonang instrument consists of two rows of bronze pots. The arrangement of the pots depends on the pathet of the piece. The performer plays with two wooden beaters, wound with cord to slightly soften the tone. Depending on the form/colotomic structure and the tempo, the bonang and bonang panerus might play one of three different elaboration techniques, either:

(a) gembyangan (syncopation against the balungan using the last note of the gatra (‘bar’ or grouping of pitches),
(b) mipil (doubling, alternately, the next two notes of the balungan), or
(c) mungkung (sumptuous, lilting, piling up the next notes of the gatra)

between bonang panerus and bonang panerus – also like a hocket.

between bonang panerus and bonang panerus – also like a hocket.
The bonang instruments exemplify the end-weighted schema of Javanese music; the last note of a gatra is considered the strong note, not the first, and these patterns anticipate that stress.

The melodies of the gender instruments are complex – a performer must learn many traditional melodic patterns (garap), and know which patterns to pull out of this ‘pool’ for any given traditional piece. Experienced musicians also create their own garap. Some will teach them to their students, contributing them to the pool, and thereby enlarge it.

Gender (gender panerus is one octave higher) Fig. 1.13: Gender barung (often just called gender) (front three) and gender panerus (rear three).

Like slenthem, the bronze keys of the gender are suspended over resonating tubes fitted into a wooden frame. The range of the gender matches that of the slenthem and demung, and the range of the gender panerus is one octave higher, matching that of the demung and saron.

They are played with two small wooden beaters padded with material to soften the sound’s attack, and as both hands are required to play the instrument, the performer must have mastered a difficult dampening technique – dampening the previously played notes with the side of one’s wrist or the heel of one’s palm. The long resonance of the instrument makes mastering the technique even more important. Each gamelan set has one slenthem and two pedogs.

The melodies of the gender instruments are complex – a performer must learn many traditional melodic patterns (garap), and know which patterns to pull out of this ‘pool’ for any given traditional piece. Experienced musicians also create their own garap. Some will teach them to their students, contributing them to the pool, and thereby enlarge it. Experienced musicians also create their own garap. Some will teach them to their students, contributing them to the pool, and thereby enlarge it.
The gambang consists of wooden keys, spanning four octaves, placed over a hollow wooden body, struck with two wooden beaters. Like gender, each gamelan set has one slendro version and two pelog versions of gambang – one pelog version has 7s (and no 4s), and the other has 4s (and no 7s). The gambang plays elaborated melodies, which like the gender, come from a pool of gamelan. Most gambang patterns end with a decoration of, and emphasis on, the final note (the strong note) of each gatra (bar) or gonggan (gong note at the end of a line or cycle).

The rebab (a bowed two-string, vertical fiddle) is often considered the melodic leader of the ensemble. It plays a decorated pelog gamelan with figures loosely comparable to standard Western ornamentations, such as anticipation notes, accented and unaccented passing notes. The style and intricacies of the decoration is unique to the performer.
of a conventional pool, while master musicians may create their own as well. 

Like the rebab and gambang, the siter and suling instruments are played by musicians extensively trained in traditional practice. The siter is played by the performer's thumbs, while a single instrument has both scales on it – the performer flips its legs around and uses his other hand in traditional practice. The siter is usually turned upside down at the discretion of the performer, usually in its higher octave, in free time, which is unique amongst gamelan instruments. The pelog suling has four finger holes and the slendro suling five finger holes (to include 7 but not 4). As with the other gamelan-playing instruments, melodies can be pulled out of a conventional pool, while master musicians may create their own as well.
as Kenong.

demung, and 1 (kenpeng) at the register of the pelog. These are struck by the same beater.

Kenpeng at the register of the saron. A similar pair comprises 2 (kenpeng) at the register of the

compares the note 6 two octaves apart – the ketuk at the register of the slenthem and the

specific structural points according to the piece's form. A pelog pair of ketuk and kempyang

The ketuk and kempyang are often, but not always, played by the Kenong player. They too mark

which crosses the higher half of the demung register and the lower half of the saron register.

structural points according to the piece's form. The register of the Kenpeng is a single octave,

and the performer strikes the one that matches the appropriate bonang pitch at specific

struck the small boss on the top of the pot. There is a Kenpeng for each note of the two scales,

乡村振兴. So when the bonang is struck, like a bonang, the kenpeng, the performer

can be a hollow wooden body, and are struck by a wooden beater wound with cord or

Kenong are a set of pots, similar in shape to bonang pots, but larger. They are suspended by

Kenpeng (small pot has a rounded top). The pelog part of Kenpeng is in the middle of the photo, the

Kempyang (small pot has a rounded top). The pelog part of Kempyang is in the middle of the photo, the

Structural Instruments and Drums

\[ \text{Fig. 1.18: Kenong} \]
The gong is the large, black gong on the far side of the gong frame, and the kempul are the other smaller gongs. The gong is struck with a heavy, round, well-padded beater which produces a very low, deeply resonant 6, at the register one octave lower than the slenthem’s low 6.

Conventionally, the gong marks the ends of significant lines or cycles. The next lowest, the low-hanging kempul on the other side of the frame to the gong, is also often called gong suwukan, and is used structurally in some traditional forms, especially in wayang kulit (shadow-puppet) performances. The other kempul, like kenong, mark specific structural points according to the piece’s form. Kempul are struck with round beaters that are well-padded, though lighter and smaller in size to the beater specifically for the gong.

Every gamelan-maker tunes the notes of their instruments differently, i.e. different sets of instruments produce different pitches when like notes (for instance, pelog 1) are compared. Generally, these pitches are roughly around the same pitch area. Within a gamelan set, usually the pelog 4 and the slendro 5 are the same as each other, as are the pelog and slendro 6s.
However, regional differences occur and in some cases the scales will share similar 2s as well; or similar 5s instead of similar 6s, with similar pelog 7s to slendro 6s. Generally speaking, between adjacent pitches, slendro contains wide ‘seconds’ and narrow ‘ thirds’ while pelog comprises narrow ‘ seconds’ and wide ‘ thirds’. (McDermott, 1986) Compared to Western equal temperaments, this can be observed by the placement of pitches in relation to an equal tempered chromatic scale:

<table>
<thead>
<tr>
<th>Slendro</th>
<th>Pelog</th>
</tr>
</thead>
<tbody>
<tr>
<td>C+35c</td>
<td>225c</td>
</tr>
<tr>
<td>D+50c</td>
<td>240c</td>
</tr>
<tr>
<td>F-10c</td>
<td>245c</td>
</tr>
<tr>
<td>G+35c</td>
<td>245c</td>
</tr>
<tr>
<td>Bb-20c</td>
<td>225c</td>
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The sizes between adjacent intervals is thus:

<table>
<thead>
<tr>
<th>Slendro</th>
<th>Pelog</th>
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<td>1 - 2</td>
<td>1 - 2</td>
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<td>2 - 3</td>
<td>3 - 4</td>
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<td>4 - 5</td>
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<td>5 - 6</td>
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<tr>
<td>5 - 6</td>
<td>6 - 7</td>
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</tbody>
</table>

(measured with electronic tuner)
When asked in an interview on Radio New Zealand whether or not gamelan had to be played traditionally, Gamelan Padhang Moncar’s director and teacher, Budi S. Putra, responded, “But now you can do anything to the gamelan, you can put Western instruments, you can put other pitched instruments. You can put percussion instruments. You can put a piano, a vibraphone, a marimba, you can put anything.”

When reading the text, it is important to consider the social and cultural context of a Javanese gamelan performance. Besides its independent function (i.e. klenengan, a performance to be held for its own sake), gamelan is an essential accompaniment for dramatic forms, such as dance, dance drama, and wayang performance. Whether accompanying a theatrical form or not, gamelan is performed in Java in many different contexts. The most common involve gamelan in ritual celebrations (e.g. wedding receptions, circumcision ceremonies, etc.). As history has evolved and technology advanced, other contexts have been reformulated such as performances for Indonesian independence celebrations, radio or television stations, etc. As my interviewee put it, “Music can be a entertainment that can be used for anything, from radio or television stations, etc.”

It is important to consider the social and cultural context of a Javanese gamelan performance.

For this piece, I employ both scales in a single piece – I utilize both slendro and pelog, a 2- and a 3-scale. An exception is when I employ whole-tone scales in my piece Miwngan, and I give my reasons for this. Another exception is specified in my piece Wligan, and I give my reasons for this. I used whole-tone scales in my piece Wligan, and I give my reasons for this. Another exception is specified in my piece Wligan, and I give my reasons for this.

An exception is when I employ both scales in a single piece – I utilize both slendro and pelog, a 2- and a 3-scale.
instruments in gamelan. But twenty years ago, that's still different – they had to play in tradition. 17

For further information on Javanese gamelan, curious readers can find extensive guides and textbooks, such as Pickvance (2005) and Spiller (2008), and also older publications such as Sumarsam (2002), Lindsay (1992), and Sorrell (1990).

17 Yee (2010), Radio New Zealand Asian Report on 6 April 2010
The use of Balinese gamelan in my composition portfolio occurs only in two electroacoustic pieces, *Mermecolion* and *Podró*, and in none of the scored instrumental/vocal compositions. For this reason, I only give a very brief introduction to the instruments and traditional music, bypassing such complex topics as form and technique (see Tenzer, 2000) for a comprehensive study, and also Spiller, 2008) and I do not provide analyses of tunings and scales. For this reason, I only give a very brief introduction to the instruments and traditional music.

**Fig. 1.24:** Reong (left side, vertical instrument in background), and pairs of gangsas – pemade (foreground) and kantilan (middle row).

**Fig. 1.25:** Pair of Jublag.

All photos taken by myself. These instruments are part of Gamelan Taniwha Jaya and are owned by composer Gareth Farr.
Fig. 1.26: Pair of Jegogan

Fig. 1.27: Gongs (Gong gede – big gong on the right, kempur – medium sized gong on the left, klentong (also known as kemong)

Fig. 1.28: Kempli

Fig. 1.29: Ceng-ceng
Gong kebyar instruments comprise a 5-note scale, pelog selisir – 1, 2, 3, 5, and 6. Typically, the two-octave ranged ugal plays the main melodic line of the piece, which is the basis for the ensemble’s multi-tempo stratification. The ugal is struck with a hard wooden mallet, and, like balungan instruments in Javanese gamelan, the previous note is dampened as the next note is struck. All of the other metallophones are paired, and ‘gendered’, for the purposes of tuning.

The ‘male’ jublag, jegogan, and gangsa (pemade and kantilan) instruments of each pair are tuned together, and their ‘female’ counterparts are tuned together, with a small difference in pitch between the two genders. The ugal melody is the same as the upper octave of the ugal, and the jegogan is the same as the lower octave. The jublag is a reduction of the ugal melody, often in a kind of contrary motion as its instrument has no complement for having the range of only one octave. It is struck with a hard, though padded mallet, and its notes are dampened as its next note is struck. The one-octave ranged jegogan play a reduction of the ugal melody, often in a kind of contrapuntal specific set of instruments. Two-octave ranged gangsa instruments (pemade and kantilan) – one octave above ugal, and one octave above ugal – also decorate the ugal melody, often in a kind of counterpoint.

The two-octave ranged gangsa instruments (pemade and kantilan) – one octave above ugal, and one octave above ugal – also decorate the ugal melody, often in a kind of contrapuntal specific set of instruments. Two-octave ranged gangsa instruments (pemade and kantilan) – one octave above ugal, and one octave above ugal – also decorate the ugal melody, often in a kind of contrapuntal specific set of instruments.
The above cipher notation can be reinterpreted into Western notation, showing the pitches of the instruments, measured with an electronic tuner (and the placement of the instruments outlining the colotomic structure of the piece’s form). Here is an example of a traditional standard repertoire piece, in cipher notation:

<table>
<thead>
<tr>
<th>Gongs</th>
<th>Kempli</th>
<th>Jegogan</th>
<th>Juliah</th>
<th>Lugal</th>
<th>Gongs</th>
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<td>Gongs +</td>
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</table>

See Appendix IV for a recording of Pengipuk.

The above cipher notation can be reinterpreted into Western notation, showing the pitches of the instruments, measured with an electronic tuner (and the placement of the instruments outlining the colotomic structure of the piece’s form). Here is an example of a traditional standard repertoire piece, in cipher notation:
Fig. 1.31: Excerpt from Pengipuk in staff notation.
The Chinese yangqin (вшань), which appears in two pieces in my composition portfolio, is a trapezoid-shaped dulcimer instrument that suspends strings over bridges on a resonant wooden body, and is struck by two thin hammers padded by rubber on one side – the padded side strikes the strings (for a softer sound), though in less conventional standard repertoire, the other side is used for a harsher sound (Yanqang, 1993; Moule, 1989). Although smaller from this common ancestor of Iran’s santur (Liang, 1970; Moule, 1989), the yangqin has evolved less conventionally than other instruments to produce a percussive effect. This can be found in standard repertoire such as Climbing Mountain to Kill the Tiger (Wang Hui, pers. comm., 2010; see Appendix IV). Although the wooden boards on the two outer sides of the instrument are conventionally closed for performances, they can be found open in standard repertoire such as Climbing Mountain to Kill the Tiger. This is also the case for the strings (left hand side of player), and the strings are open revealing the pins for the strings (left hand side of player), and the wooden boards are conventionally closed for performances (Wang Hui, pers. comm., 2010; see Appendix IV). The wooden boards on both outer sides are conventionally closed for performances, and the strings are open revealing the pins for the strings (left hand side of player), and the strings are conventionally closed for performances (Wang Hui, pers. comm., 2010; see Appendix IV). The wooden boards on both outer sides are conventionally closed for performances, and the strings are open revealing the pins for the strings (left hand side of player), and the strings are conventionally closed for performances (Wang Hui, pers. comm., 2010; see Appendix IV). The wooden boards on both outer sides are conventionally closed for performances, and the strings are open revealing the pins for the strings (left hand side of player), and the strings are conventionally closed for performances (Wang Hui, pers. comm., 2010; see Appendix IV). The wooden boards on both outer sides are conventionally closed for performances, and the strings are open revealing the pins for the strings (left hand side of player), and the strings are conventionally closed for performances (Wang Hui, pers. comm., 2010; see Appendix IV). The wooden boards on both outer sides are conventionally closed for performances, and the strings are open revealing the pins for the strings (left hand side of player), and the strings are conventionally closed for performances (Wang Hui, pers. comm., 2010; see Appendix IV). The wooden boards on both outer sides are conventionally closed for performances, and the strings are open revealing the pins for the strings (left hand side of player), and the strings are conventionally closed for performances (Wang Hui, pers. comm., 2010; see Appendix IV). The wooden boards on both outer sides are conventionally closed for performances, and the strings are open revealing the pins for the strings (left hand side of player), and the strings are conventionally closed for performances (Wang Hui, pers. comm., 2010; see Appendix IV). The wooden boards on both outer sides are conventionally closed for performances, and the strings are open revealing the pins for the strings (left hand side of player), and the strings are conventionally closed for performances (Wang Hui, pers. comm., 2010; see Appendix IV). The wooden boards on both outer sides are conventionally closed for performances, and the strings are open revealing the pins for the strings (left hand side of player), and the strings are conventionally closed for performances (Wang Hui, pers. comm., 2010; see Appendix IV). The wooden boards on both outer sides are conventionally closed for performances, and the strings are open revealing the pins for the strings (left hand side of player), and the strings are conventionally closed for performances (Wang Hui, pers. comm., 2010; see Appendix IV). The wooden boards on both outer sides are conventionally closed for performances, and the strings are open revealing the pins for the strings (left hand side of player), and the strings are conventionally closed for performances (Wang Hui, pers. comm., 2010; see Appendix IV). The wooden boards on both outer sides are conventionally closed for performances, and the strings are open revealing the pins for the strings (left hand side of player), and the strings are conventionally closed for performances (Wang Hui, pers. comm., 2010; see Appendix IV).
The instrument is performed mostly with lun, a tremolo technique, rapidly alternating between pitches by striking with the hammers with both hands. Dunyin (staccato effect) can be employed by dampening a struck string with the performer's hand, although some resonance will remain (Yang, 1993). Indeed, its resonance and long decay (like a harp) contributes to its characteristic sound. Although it is a solo instrument, with a large traditional solo repertoire, the yangqin also has a repertoire of adapted works from other instruments – traditional and Western. The yangqin has been accompanying Western solo instruments, like violin or guitar, for over a century (Moule, 1989).

Conventionally, yangqin music is notated in cipher notation similar to that for gamelan but more complex (see below), though now, it can also be notated in Western staff notation, as many yangqin players are conservatory trained. The following excerpt is from Guo Min Qing's arrangement for yangqin of composer Cao Ling's Festival of the Tianshan Mountains. The key of the piece is explained by the '1=D' (C, D major).

The excerpt from Cao Ling, arr. Guo Min Qing: Festival of the Tianshan Mountains, Republic of China: Zhao Yan Fang, Xiamen University (c.2000).

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The excerpt from Cao Ling, arr. Guo Min Qing: Festival of the Tianshan Mountains, Republic of China: Zhao Yan Fang, Xiamen University (c.2000).
VI. Asian influences in Western art music

The purpose of this section is to outline the context in which my cross-cultural compositions are received, and to put forward a taxonomy of approaches to cross-cultural composition. Much of my music is influenced and informed by Asian music and Asian musical instruments, and it is this influence that I focus on here—see Appendix II for a review of the influence of folk and non-Western music in Western art music since the Classical era.

Specifically, I will consider seminal twentieth century composers Claude Debussy, Maurice Ravel, Olivier Messiaen, Benjamin Britten and Steve Reich—all are Western art music composers trained in Western composition practice. These composers were influenced by the sounds of Asian music, and to varying degrees allowed this influence to manifest in their own Western art music. Furthermore, see Appendix I for a specific case study on Lou Harrison, a significant figure in cross-cultural composition in the twentieth century. Harrison was a major catalyst in this domain because many of his compositions used traditional Asian instruments with or without Western instruments.

French composers Debussy and Ravel “were profoundly impressed in their youth by the performance of oriental and north African music at the Paris World Exhibition of 1889,”22 including hearing the sounds of Javanese gamelan. Debussy especially was excited by the gamelan’s exotic, non-Western sounds, claiming that it “contained all gradations, even some that we no longer know how to name, so that logic and dominant were nothing more than empty phrasing of use to clever little children.”23 His Pagodes from Estampes pour piano (1903), for example, employs pentatonic systems and stratified tempi that evoke the sounds of the gamelan.

23 Debussy quoted in Ross (2009), p. 44.

Other Western composers, like Ravel, Olivier Messiaen, Benjamin Britten and Steve Reich—all are Western art music composers trained in Western composition practice, will consider seminal twentieth century composers Claude Debussy and Maurice Ravel. Specifically, I will consider seminal Western music and Asian music, and to varying degrees allowed this influence to manifest in their own compositions. Likewise, the influence of folk and non-Western music in Western art music since the Classical era, and its impact on Western art music, will be reviewed. For a review of the influence of folk and non-Western music in Western art music, see Appendix II. The purpose of this section is to outline the context in which my cross-cultural compositions are received, and to put forward a taxonomy of approaches to cross-cultural composition. Much of this influence on Western art music I focus on here—see Appendix II.
This effect is also evoked in moments in Ravel's orchestral work *Ma Mère L'oye* (1911), which also employs pentatonic scales and stratified tempi.
Moreover, throughout this movement, Ravel's combination of xylophone, glockenspiel, celesta, variously supported by cymbal, harp and string pizzicato figurations so uncannily evoke the title of the piece, "Laideronnette, Impératrice des Pagodes".
suggests a gamelan orchestra,” 26 though no traditional Indonesian techniques or musical materials are explored in the piece. The piano pieces in Debussy’s *Children’s Corner* (1906-8) amongst others comprise melodies built from pentatonic scales, influenced by the sounds of oriental music. Stuckenschmidt (1969) proposes that they are “rationalised or stylised versions of oriental scales such as the Javanese *slendro* and *pelog*.” 27 Furthermore, moments in Debussy’s *Preludes* (1909-1913) evoke the sounds of the gamelan. I feel that the low octave notes evoke the sounds of the gongs, the semiquaver melody-in-octaves are reminiscent of *gambang* performance technique, and the parallel octaves are reminiscent of *balungan* melodies performed in three octaves by *slenthem*, *demung* and *saron* on each downbeat:

![Fig. 1.38: Claude Debussy (bb. 43-44): Le sons et les parfums tournent dans l’air du soir from Preludes (Book 1)](1999161-906810-01)

Messiaen first heard a gamelan perform in 1931 (Hill & Simeone, 2005) and, like other composers such as Boulez and Britten and Lou Harrison, he was inspired by the sounds of gamelan to incorporate robust, dominant ensembles of keyed and mallet percussion inside larger ensembles—like a “gamelan section” of an orchestra. Consider Messiaen’s *Turangalila-Symphonie* (1946-8), *Réveil des Oiseaux* (1953), *Oiseaux Exotiques* (1949), *Couleurs de la Cité Céleste* (1963) – Messiaen even went so far as to name this section the *gamelang* section. Each make extensive use of their comprehensive percussion sections.

![The piano pieces in Debussy’s *Children’s Corner* (1906-8) announce others composite modes](1999161-906810-01)

Each make extensive use of their comprehensive percussion sections. In *Turangalila-Symphonie* (Sorrell, 1992), Messiaen even went so far as to name this section the *gamelang* section. Consider Messiaen’s *Turangalila-Symphonie* ensembles—like a “gamelan section” of an orchestra. Each make extensive use of their comprehensive percussion sections. The piano pieces in Debussy’s *Children’s Corner* (1906-8) announce others composite modes of materials are explored in the piece. *Sugères* a *gamelan* orchestra, though no traditional *indonesian* techniques of musical...
Britten's imitation of the sounds of gamelan in his ballet The Prince of Pagodas (1957) – with a percussion section of vibraphone, celesta, piano, harp, xylophone, bells, gongs and gongs – is well-known, and is based on traditional Balinese material (Britten & Cranko, 1957; Sorell, France (1966), p. 3).

Fig. 1.39: Olivier Messiaen (first half of third page: Couleurs de la Cité Clémente (1963), published by Alphonse Leduc & Co., France (1966), p. 3.)
Britten’s Curlew River (1964) is informed and influenced by his exposure to traditional Japanese art forms such as no theater and gagaku (Japanese court music) while visiting Japan in 1956 (Cooke, 1988). Fascinated by the music of the shō, a traditional Japanese mouth organ capable of performing chords of five or six notes, Britten studied the performance techniques of shō players. He incorporated this technique into the chamber organ part of Curlew River.

A succession of chords constantly evolving, in which the beginnings and endings of the chords are blurred by slipping away from the fingerholes employed and slipping them onto the next.

Fig. 1.41: Benjamin Britten (organ part) Curlew River (1964), published in Cooke (1988), p. 233

Fig. 1.40: Benjamin Britten (percussion section) The Prince of the Pagodas (1957), published by Boosey & Hawkes, UK (1989), p. 233

Fig. 1.40: Benjamin Britten (percussion section): The Prince of the Pagodas (1957), published by Boosey & Hawkes, UK (1989), p. 233
Britten was faithful to the instrument's conventional harmonic language and attempted a degree of authenticity in his synthesis of cross-cultural musical influence. In his article, Cooke (1988) maps the various traditional sho chords onto Britten's organ part and the transpositions of authentic Japanese music in Britten's music.

Fig. 1.44: Britten in Japan (1956) having a lesson in sho technique, from Cooke, 1988 p. 232
Messiaen's *Sept Haïkai* (1962) was also inspired by the Japanese music the composer heard when in Japan in the early 1960s. The eight-part violin writing, especially in its fourth movement, *Gagaku*, evokes the sound of the *shō* through sustained chords, and the musical material in the trumpet evokes the sound of the *hichiriki*, a Japanese double-reed instrument. Again, the composer's selection of percussion—bells, gongs, xylophone and marimba—evokes the timbres of gamelan:

Prior to the 1970s, American minimalist composer Steve Reich had read *Music in Bali* by Colin McPhee, and had listened enthusiastically to recordings of Balinese gamelan. After returning to America from West Africa (see Appendix II), Reich studied gamelan in the summer of 1973 at the University of Washington in Seattle.
and in the summer of 1974 at the Center for World Music in Berkeley (Schwarz, 2008). Schwarz identifies the influence of gamelan textures in Reich's *Music for Mallet Instruments, Voice and Organ* (1973), despite the fact it was composed before Reich began his gamelan studies, and that this influence continued to present itself in pieces such as Reich's *Music for 18 Musicians* (1974-6). In his own words, "I studied Balinese and African music because I love them, and also because I believe that non-Western music is presently the single most important source of new ideas for Western composers and musicians. (Reich, quoted in Schwarz, 2008, p. 88.)

Reich's time studying gamelan continued to influence and inform his compositions. Take, for instance, his piece *Tehillim* (1981), in which four Psalms are set in Hebrew. Reich himself identifies "two forces at work: the long cycles of [Balinese gamelan] and my study of cantillation.

Michael Tippett's *Triple Concerto* for Violin, Viola, Cello and Orchestra (1979) combines elements of both Balinese and Javanese gamelan (see Clarke, 2000). While the first and third sections of the work are reminiscent of Balinese *gong kebyar*, the "Very slow, calmer still" sections of the piece evoke the sounds of Javanese gamelan with its approximation of pelog scale, and his study of Balinese *kotekan* or Javanese *imbal-imbalan techniques:

![Fig. 1.46: Michael Tippett, Triple Concerto for Violin, Viola, Cello and Orchestra (1979), published by Schott & Co., UK (1981), p. 87](image)

*Fig. 1.46: Michael Tippett, Triple Concerto for Violin, Viola, Cello and Orchestra (1979), published by Schott & Co., UK (1981), p. 87*
These composers have been influenced by Asian music to varying degrees. For some, Asian musical influences inspired a specific choice of instruments (for instance, a large keyed and mallet percussion section inside a larger ensemble). For other composers, Asian musical materials made their way into larger musical structures. For other composers still, studying the traditional music itself and its theory generated musical material for new composition. These composers did not compose for traditional musicians and their instruments — though this is now a developing trend, since such works by prominent Western art music composers as Neil Sorrell’s *Gendhing Kencana* (1983) for gamelan and Michael Nyman’s *Times Up* (1983) for gamelan, and since the music of Lou Harrison (see Appendix I).

A taxonomy can be extrapolated from the various approaches of composers:

1. Appropriating non-Western material for a Western music piece through transformation techniques (e.g. Body’s *Polish Dances* — see Chapter 2 Section I, and my work *Elegy*). This allows for a greater harmonic vocabulary in a Western art piece (e.g. Debussy’s *Rălește*).

2. Infusing the sounds of non-Western music through adopting their modes, structures, rhythmic ideas, and so on, in a Western art piece (e.g. Debussy’s *Rălește*).

3. Infusing the rhythms of non-Western music through adapting their modes, techniques, melodic lines, and so on, in a Western art piece (e.g. Schubert’s *Sonata in C major*).

4. Producing folk tunes (or melodies based on folk tunes) in a Western art music piece (e.g. Stravinsky’s *Rite of Spring*, Schubert’s *Sonata in C major, Op. 120a*).

A taxonomy can be extrapolated from the various approaches of composers:

- Harrison, and since the music of Lou Harrison (see Appendix I).
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- Infusing the rhythms of non-Western music through adapting their modes, techniques, melodic lines, and so on, in a Western art piece (e.g. Schubert’s *Sonata in C major, Op. 120a*).
- Producing folk tunes (or melodies based on folk tunes) in a Western art music piece (e.g. Stravinsky’s *Rite of Spring*, Schubert’s *Sonata in C major, Op. 120a*).

methods is doors to traditional Javanese gamelan conventions. The cycle melody that the piece contains was influenced by Javanese music, and not by Western and other non-Western music. Sorrell’s piece, which contains conventional chords, the melody in this piece, is a slow, bright, piece for which composers have composed, and this is essentially the section of Javanese *dances* (see Chapter 2 Section I) in my work *Elegy*. This allows for a greater harmonic vocabulary in a Western art piece (e.g. Debussy’s *Rălește*).

These composers have been influenced by Asian music to varying degrees. For some, Asian musical influences inspired a specific choice of instruments (for instance, a large keyed and mallet percussion section inside a larger ensemble). For other composers, Asian musical materials made their way into larger musical structures. For other composers still, studying the traditional music itself and its theory generated musical material for new composition. These composers did not compose for traditional musicians and their instruments — though this is now a developing trend, since such works by prominent Western art music composers as Neil Sorrell’s *Gendhing Kencana* (1983) for gamelan and Michael Nyman’s *Times Up* (1983) for gamelan, and since the music of Lou Harrison (see Appendix I).
5. Including recordings of non-Western music in an instrumental Western art music piece (e.g. Body's *Arum Manis* – see Chapter 2 Section III) or in an electroacoustic composition (my own pieces *Mermecolion* and *Podróz*)

6. Composing for the non-Western instrument(s), often in combination with Western instruments, though in a Western art music context, that is, as a work of chamber music (e.g. Jack Body's *Campur Sari* – see Section I (this Chapter); my own pieces *Melody for Violin and Yangqin*, *Tabula Rasa* and *Cycles, Shadows*)

7. Composing for the non-Western instrument(s), perhaps in combination with Western instruments, in the context of the traditional music, or heavily inspired by authentic traditional performances and conceived as in that style, even though it may develop that style (e.g. Lou Harrison's *Bubaran Robert*, see Appendix I; my own pieces *Ketawang Anggun Slendro Manyura*, *Ladrang Santai Slendro Sanga* and *Gendhing Tarikan Pelog Nem*) – or, in unfortunate cases, expose the composer's naïveté.

Below I offer a chart that attempts to generalise my approaches to the composition of the works outlined above. Each position in the list above essentially outlines a different level of awareness of the 'other' music, or engagement with the 'other' music. Each position may result in a successful composition and through each one, composers explore different possibilities and have different musical goals.

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**Cross-cultural Taxonomy of Cross-cultural Composition**

<table>
<thead>
<tr>
<th>Cross-cultural Composition</th>
<th>Cultural Music</th>
<th>Approach</th>
<th>Instrumentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Including recordings of non-Western music in an instrumental Western art music piece</td>
<td>Chamber music context</td>
<td>Assimilate the non-Western instrument into a Western chamber music context</td>
<td>Clarinet, bassoon, viola, Javanese gender</td>
</tr>
<tr>
<td>6. Composing for the non-Western instrument(s), often in combination with Western instruments, though in a Western art music context, that is, as a work of chamber music</td>
<td>Chamber music context</td>
<td>Composing for non-Western instruments using Western compositional techniques</td>
<td>Clarinet, bassoon, Javanese gender</td>
</tr>
</tbody>
</table>

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Appendix I: my own pieces *Ketawang Anggun Slendro Manyura*, *Ladrang Santai Slendro Sanga*, *Gendhing Tarikan Pelog Nem* – or, in unfortunate cases, expose the composer’s naïveté.

Appendix L: my own pieces *Ketawang Anggun Slendro Manyura*, *Ladrang Santai Slendro Sanga*, *Gendhing Tarikan Pelog Nem* – or, in unfortunate cases, expose the composer’s naïveté.

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<table>
<thead>
<tr>
<th>Title</th>
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</tr>
</thead>
<tbody>
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</tr>
<tr>
<td>Elegy</td>
<td>Assimilate the non-Western instrument into a Western chamber music context by composing with recordings of non-Western instruments, essentially as sound sources, in electroacoustic music.</td>
</tr>
<tr>
<td>Metamotion</td>
<td>Assimilate the non-Western instrument into a Western chamber music context by composing with recordings of non-Western instruments, essentially as sound sources, in electroacoustic music.</td>
</tr>
<tr>
<td>Peace Non</td>
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<tr>
<td>Kendhang Lathana</td>
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</table>
Clarinet solo Partly inspired by (European) folk music

After Clive Bell

Piano solo

Inspired by cyclic, non-climactic music such as Javanese gamelan

Imitating the sounds of non-Western music through rhythmic ideas, cycles, lack of climax, stasis

Electroacoustic

Not drawing upon cross-cultural practice

Fig. 1.47: Approaches and taxonomy of my compositions
Ung’s Spiral III is one of a series of pieces for a variety of Western chamber ensembles, in which textures and timbres play central roles; the methods and rhythmic material, in and out of several distinct timbres. Ung studied the traditional music of his own culture as well as Western art music, and this knowledge of both manifests in his original compositions. In Spiral III the music phases in and out of ordinary (via sul pont and sul tasto) timbral positions within robust, internal musical structures, and the textures he employs evoke the sounds of traditional Southeast Asian music.
Other non-Western composers are combining traditional instruments and Western art instruments in their works. I embrace this development.

"Fig. 1.49: Chinary Ung (first page): Spiral III (1990), published by C. F. Peters Corporation, USA (1992)"

Music is a constantly changing artform, and as globalization and cross-cultural encounters continue, many more non-Western and folk influences will show in the compositions of future composers. Composers will continue to develop the contexts in which they are composing, extending their repertoire of compositional techniques to include non-Western techniques, and for some, including non-Western instruments in their works. I embrace this development.

Aris Daryono is a prominent Indonesian-born composer living in the United Kingdom – his works include Sidhem, Bremara Kasireb (2005) for amplified Javanese gamelan and full Western orchestra; No. 1 (1992) for Javanese gamelan and orchestra, Music for String Quartet, Rebab and Woodwind Trio (2007), which also requires the performers to take off their clothes and run around the concert hall screaming and laughing. His works include Symphony No. 1 for Javanese gamelan and full Western orchestra; Michael Asmara is a prominent Indonesian composer living in both Indonesia and Japan – his works include Symphony No. 1 (1992) for amplified Javanese gamelan and full Western orchestra; Mantra for the Opening (2003) for mixed chorus, gender, demung, vibraphones, xylophones and marimbas, and for more non-Western composers combining traditional instruments and Western art instruments in their works.
CHAPTER TWO

ISSUES FACED BY CROSS-CULTURAL COMPOSERS

I. Participant Observation

The important German philosopher Friedrich Nietzsche first invited his readers to reflect on whether or not music can truly be fathomed in an academic fashion in his 1872 treatise, *The Birth of Tragedy*. At that time Nietzsche was influenced by Arthur Schopenhauer’s metaphysical view (along with Schopenhauer’s “aesthetic experience, and comprehension of experience: it reduces and conquers reality, for which words of hope and help are inadequate.”

In *African Rhythm and African Sensibility* (1979), Chernoff (1979), p. 8. proposes that participatory involvement (a participant-observer often obtains a better sense of how the elements of a given context blend together into a larger configuration.) becomes possible. He writes, “My method of studying the music was to learn to play it. In the music of another culture is how one can become familiar with it as part of their own musical environment (see page 7).”

Mantle Hood, who “advocated ‘bimusicality’ (the musical equivalent of ‘bilingualism’) as an approach to cross-cultural understanding through music,” acquired a gamelan set for the Mantle Hood (2008), p. 103.


Chernoff (1979), p. 103.


University of California, Los Angeles in 1958. He believed that his students should learn to play the music that they are researching – an unconventional notion at that time. Hood defends his view in his seminal article *The Challenge of 'Bi-Musicality'* (1960).

I have experienced being a participant observer. I have learnt the music of Indonesian gamelan by rehearsing and performing with Javanese and Balinese gamelan ensembles, participating in workshops, and undertaking ethnomusicology performance study at university. I believe that Chernoff is right. Much of what I know about gamelan has come from playing the instruments, both in ensembles and one-on-one with a teacher from the tradition – and I would not have the understanding of the music that I now have if I were not a participant observer. And to me, the most important thing about being a participant observer is that I have learnt the music of Indonesian gamelan, not just by reading about it but by playing it.

Composer and world music enthusiast Steve Reich says, ‘Although I have studied the classical tradition of Western music, I have also studied the music of many non-Western cultures, and I would say that my participation in these traditions has helped me to understand and appreciate my own. I believe that there is a synergy of these different traditions, and that by listening to and learning from them, we can gain a deeper understanding of our own.’

Reich’s view is echoed in his seminal article *The Challenge of ‘Bi-Musicality’* (1960), where he describes how Western musicians can learn to play the music of non-Western cultures and gain a deeper understanding of their own. He believes that this approach is essential for the future of music, and that by studying and performing the music of other cultures, we can gain a new perspective on our own.

Despite the challenges of learning and understanding non-Western musics, Reich remains committed to this approach. ‘I believe that we can all learn from each other, and that by doing so, we can create a new, more integrated culture of music,’ he says.
with traditional practice by reading instead from the balungan line and creating their part as appropriate for their instrument. This approach allows freedom for the players of some gamelan instruments, but not for the players of Western instruments (i.e., the string quartet must play what is written on the score).

My own involvement and participant observation in non-Western music

In February 2005, when I began as an undergraduate music student at Victoria University of Wellington (the 'New Zealand School of Music' merge with Massey University had not yet occurred), I joined Gamelan Padhang Moncar, the Javanese gamelan affiliated with the university, and began rehearsing and performing concerts with the group. I played predominantly balungan instruments as I learnt the music, its structures and repertoire.

Six months later, Slendro Canon, my first composition for Javanese gamelan (employing only a small ensemble featuring demung, slenthem, and peking) was performed by Gamelan Padhang Moncar at a concert of new compositions for gamelan and traditional Javanese pieces at St Andrews on The Terrace. Shortly after this concert I joined Gamelan Taniwha Jaya, the Balinese gamelan owned by Gareth Farr and affiliated, at that time, with Massey University. In 2006 I began one-on-one lessons with Budi S. Putra for Ethnomusicology Performance at university. These lessons continued for the next three years, up to and including Honours level.

Predeominantly balungan instruments are learnt in the music, its structures and repertoire.

In February 2005, when I began as an undergraduate music student at Victoria University of Wellington (the New Zealand School of Music, merged with Massey University) and not yet in Wellington (the New Zealand School of Music, merged with Massey University), I played a few concerts with Gamelan Padhang Moncar, the Javanese gamelan affiliated with the university, and began researching and performing concerts with the group.

My own involvement and participant observation in non-Western music

With traditional practice by reading instead from the balungan line and creating their part as appropriate for their instrument, this approach allows freedom for the players of some gamelan instruments, but not for the players of Western instruments (i.e., the string quartet must play what is written on the score).
This piece exemplifies an approach also in some of the compositions of Gareth Farr for Javanese gamelan. For instance, this piece of Wayan Gde Yudane, The Churning of the Sea (2006), first half of first page, unpublished score from my private collection

This piece does not conform to Javanese gamelan conventions. For instance, the strong beats occur with the gongs (third line of each system in the cipher notation) on the first beat of each gatra, rather than on the last beat which is the strong beat in Javanese gamelan. Moreover, the ornamentation of this gong-played 'balungan' (the gong, kempul and slenthem) is more similar to the way gangsa ornament an ogang melody in Balinese gamelan. 10

Conventional Javanese colotomic structures are disregarded. This cross-cultural work is an example of combining an improvising saxophone solo – a musically and intellectually exciting example of combining music from different cultural backgrounds.


and Gamelan Tamiwha Java's 2008 album, Now I Know.

10 This piece exemplifies an approach also in some of the compositions of Gareth Farr for Javanese gamelan, for example Reongan (1992) – adopting idiom from Balinese gamelan as a compositional device when writing for Javanese gamelan; an adjunct to the composition.

Melody for Gamelan Bali was composed for performance by Gamelan Taniwha Jaya at the 2007 International Gamelan Festival in Yogyakarta, Java. It is a simple, traditional-style melody, though punctuated by a 3-time colotomic gong structure rather than the conventional 4-time colotomic structure. The piece was an indelible experience, see Strom (2009) for an account of the tour.

Another piece from the tour's repertoire is Jack Body's *Polish Dances* for two clarinets, saxophone, and Javanese gamelan. The first clarinet carries the melodies of Jack's transcriptions of Polish folk music, while the gamelan suggests a 'skewed' version of Western harmony, switching between the pelog and slendro scales. The second clarinet and saxophone support the first clarinet, appearing only in the second movement. Jack’s method of notation here (using the Western staff with cipher notation clearly marked underneath) appeared to me to be a successful solution to combining elements of cipher and staff notational systems. The performer follows the rhythms and pitches as indicated by the cipher notation, which is underneath a staff which assists by representing contours and approximate pitches more effectively than cipher notation on its own. This method has also been used by I Wayan Gde, amongst others. See Fig. 2.2: Jack Body: *Polish Dances II. Medley* (2007), first half of first page of the Javanese gamelan part, unpublished score from my private collection.

Another piece from the tour's repertoire is Jack Body's *Polish Dances For Two Clarinets and Javanese Gamelan*. The first clarinet carries the melodies of Jack’s transcriptions of Polish folk music, while the gamelan suggests a 'skewed' version of Western harmony, switching between the pelog and slendro scales. The second clarinet and saxophone support the first clarinet, appearing only in the second movement. Jack’s method of notation here (using the Western staff with cipher notation clearly marked underneath) appeared to me to be a successful solution to combining elements of cipher and staff notational systems. The performer follows the rhythms and pitches as indicated by the cipher notation, which is underneath a staff which assists by representing contours and approximate pitches more effectively than cipher notation on its own. This method has also been used by I Wayan Gde, amongst others. See Fig. 2.2: Jack Body: *Polish Dances II. Medley* (2007), first half of first page of the Javanese gamelan part, unpublished score from my private collection.

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Touring Indonesia was an indelible experience, see Strom (2009) for another account of the tour.
In 2008 I composed two new gamelan pieces, *Sonnet Suite* for Javanese gamelan and *£or/tue*, a duo for guitar and gamelan performer (*kenong* and *saron* instruments). *Sonnet Suite* comprises four miniatures, in which I explore different possibilities for gamelan composition in separate, short, self-contained movements. *£or/tue* was developed out of one of those miniatures, and in it, for the first time, I explored and manipulated the way tension can be built and released by exploiting microtonal intervals generated through combining *pelog*, *slendro*, and equal temperament Western tunings together. That the piece would sound quite different (due to pitch discrepancies and beatings) when performed on different sets of instruments is something I embrace.

However, I was unfamiliar with Chinese *yangqin* (dulcimer) before being invited to compose for it, for young musician Wang Hui. Hui offered the composers involved in her concert a preliminary workshop. She played some traditional pieces and a contemporary piece written by a friend and colleague of hers at Xiamen University, and then invited us to try playing the instrument ourselves, with her guidance. Hui encouraged us to work closely with her and have regular rehearsals. Our pieces were developed over time and workshops along the way. Performance excerpts from both concerts were recorded.

Moreover, in Hui’s concert, I accompanied her on drum in two of her *yangqin* pieces, *(The General’s Order)* and *(Festival of the Tianshan Mountains)*. Although I was improvising, I was given patterns and verbal instructions, and played under Hui’s direction. I also gave scores and recordings of traditional Chinese pieces for our compositional research. Our pieces were developed over time and workshops along the way. Hui collaborated with us to work closely with her and have regular rehearsals. Our pieces were developed over time and workshops along the way. Hui encouraged us to work closely with her and have regular rehearsals. Her residencies culminated in concerts at the New Zealand School of Music of Wellington City and of Xiamen City.

Had more time been made available, I would have taken the opportunity to learn further basic performance techniques and instruments. When the piece would sound quite different (due to pitch discrepancies and beatings) when performed on different sets of instruments is something I embrace.

In 2008 I composed two new gamelan pieces, *Sonnet Suite* for Javanese gamelan and piano, *Elegy* for Javanese gamelan and piano, which is part of my composition portfolio. A very similar approach was employed in my composition *Elegy* for Japanese *shakuhachi* and piano.
II. Towards a cross-cultural music aesthetic

In my discussion of approaches regarding aesthetic appreciation in Appendix III, I settle on a pluralist option. The purpose of this section is to consider how a pluralist approach to aesthetics might affect an aesthetic appreciation of art from another culture or in a cross-cultural context.

There is debate in the philosophical literature regarding whether or not there are aesthetic universals across art (Dutton, 2005). For instance, one might think that pitch is a universal property of music, but counterexamples are abundant. Consider the music produced by unpitched percussion instruments (found not only in contemporary Western music, but in Australian Aboriginal and African music, amongst other world musics), in some electroacoustic music, and works like Cage’s 4’33’’ (1952). I argue that the project of the aesthetic universalist is not a lost cause, however. This is relevant because it is through the debate on universals in music that common properties across music in different cultures are identified, facilitating any genuine prima facie aesthetic experiences in contexts unfamiliar with those experiencing the music. Anthony J. Palmer (1992), taking a psychological approach, also advocates the significance of musical tension. He argues in favor of the universalist’s project, “while the sounds of the large gong…

and characteristics of gongan (phrases in traditional Javanese pieces between ending with) the musician, Jumarnam, describes the ‘initial sonorant tension, and resolution of the tension and realization in traditional Javanese music’ indicating the Japanese

the issue of tension of tension. Music for Strings, Percussion, and Celeste (1960) and the steady rhythmic jolts in Stravinsky’s Rite of Spring (1913), the driving rhythms of Beethoven’s music, frequently when the music climaxes down,”11. He discusses the tension produced by the unpredictable embouchure. Others may find this to be an important single principle. In my view, these are just a few examples of musical tension in the wide range of musical expression that can be considered as musical tension also considers in all ga...
We are essentially alike in our mental and emotional dispositions. It seems reasonable to assume, therefore, that we will respond similarly, if not identically, to various fundamental principles embedded in the stimuli in musical and other artistic phenomena." 19 This controversial claim was vindicated seven years later by psychologists Balkwill & Thompson (1999), whose extensive experimentation proved that, very frequently, "naïve" listeners, even in a cross-cultural context, responded similarly to "expert" listeners of that music system (in terms of sensory perception, emotion, and so on).

Secondly, Palmer shows how, appealing to musical tension, one can make sense of music cross-culturally. Consider the epitome of musical tension in the Western tonal tradition, "a tonic is established, a move away from it raises expectations, it arouses tensions until a return to the tonic is effected as a final completion or closure … The announcement of this return event has come to be the dominant-seventh chord. 20 The dominant-seventh chord is so strongly implicated in the West, that it "shocks the system of tonal resolution. Consider the beginning of the fourth movement of Beethoven's Eroica (1804) – "With the tension build up from the reiteration of the Bb7 chord, the release can only be effected by offering an Eb rooted chord, which does occur immediately in the West, that is by the return to the home chord. 21 The dominant-seventh chord is so strongly come to be the dominant-seventh chord."

I cannot improve on philosopher Dennis Dutton's words, A balanced view of art will take into account the vast and diverse array of cultural elements that make up the life of artistic creation and appreciation. At the same time such a view will acknowledge the universal features the arts everywhere, in their own unique contexts, make when they make up the life of artistic creation and appreciation. 22

Despite the very different ways music has manifested in different cultures, and the different ways music can be understood in different cultures, I believe it is probable that there is a common historical link – music has an origin in our biological, ancestral past. 23 Moreover, it can also be shown that the specific styles of music we create are created and conditioned very differently, "is not the very same aesthetic at work in Japanese gagaku or Hindustani gharana, or John Cage's 4′33″, or atonal works. Although when the listener is presented with the construction of a version of tension with that of Beethoven's Eroica, the release can only be effected by offering a related chord, which does occur immediately in the West, that is by the return to the home chord. 21 The dominant-seventh chord is so strongly come to be the dominant-seventh chord."


24 Darwin (in Hamilton, 2007) explains the evolution of music in the hominin lineage by appealing to the mating-calls our ancestors once made; Dutton (2009) explains it in a similar vein, as a costly signal for sexual selection (like a peacock's tail); Pinker (2006) regards it as a by-product of evolution rather than sexual selection.
be easy to imagine how something else (e.g. a folk religion) could evolve/develop in small scale hominin groups to enable cooperation, amongst other things (see Wilson, 2002), and music – demanding social cooperation and coordination – could emerge as an aspect of that social organization. One could continue postulating more ideas about how music could have evolved (as, indeed, many scholars do), but that endeavour would go beyond the scope of this thesis. For now it is enough to consider the possibility of an aesthetic interest in the evolution of music's origin, meaning and function.

Ultimately, cross-cultural composition offers the possibility of an aesthetic interest in the evolution of music's origin, meaning and function. I have evolved a capacity for sensory pleasure and that music ‘hits the right buttons’ in the same way that strawberry cheesecake and pornography does for some people.
III. Cross-cultural appropriation

It is no longer apropos to know just the music that you were raised in, but you must know one other. Otherwise, you are not a citizen of the world, and to know the music that you were raised in, but you must know additional cultural heritages.

The total musical culture of the planet Earth is "coming together" so to speak. Western composers living in the United States or Europe, for example, would now have access to music of the various Asian cultures, to the music of Africa, and to the music of South America. Numerous beautiful recordings of non-western music are readily available, and one frequently has the opportunity to hear excellent live performances by the touring performers of other cultures. The influence would be felt on different levels, of course: only a few western composers would have a sophisticated technical knowledge of the Indian raga technique, for example; but in general, the sounds, textures, and gestures of this music would be well-known. This awareness of music in its largest sense – as a world-wide phenomenon – will, I feel, have enormous consequences for the music of the future.

There is a vast literature on cultural appropriation. For recent discussions see Ziff & Rao (1997) and Young (2010). My discussion is focused on the adoption of musical materials and concepts from other cultures, though I believe that my discussion below shows that my adoption of non-Western musical materials and concepts is with sensitivity and respect.

I have already shown that many composers are inspired by the sounds of the music of other cultures (Chapter 1 Section V and Appendix II). For those Western composers who work with musical materials or instruments of other cultures, or who record or transcribe music of other cultures for use in composition, or who combine musical conventions of different cultures musically, it is difficult to prevent the adoption of cultural ideas. It is, I believe, the case that many composers are inspired by the sounds of the music of other cultures, and I have already shown how composers who work with non-Western musical materials and concepts are inspired by the sounds of the music of other cultures.

A pertinent distinction between ethicists in the contemporary philosophical literature is between moral expressivists and moral naturalists (see Sterelny, 2007). Expressivists believe that moral properties are objective, whereas naturalists believe that moral properties are derived from objective properties of the world. Expressivists believe that moral properties are objective, whereas naturalists believe that moral properties are derived from objective properties of the world. Expressivists believe that moral properties are objective, whereas naturalists believe that moral properties are derived from objective properties of the world.
misappropriate and the extent of the debate gets excruciatingly complex, as is shown by Ziff & Rao (1997). There are three main areas of concern relevant to composers: stewardship (the treatment of the indigenous resources – i.e. the musical instruments), deprivation (the profiting – whether financial or reputational – of composers whose technique exploits the intellectual property of musicians of another culture), and matters of authenticity and degradation (the misrepresentation or misallocation of authenticity that is harmful to the perception of the tradition, and the debate between preservation and innovation within the conventions of a non-Western music). 29

The extent to which one should or should not conform to the traditional methods of treating cultural artefacts such as musical instruments is an open issue. However, misuse of instruments and misappropriation can lead a composer into a cultural minefield. My solution is simple. I try to be aware of culturally appropriate uses of instruments and music and culture of the artefacts they are appropriating will be unlike them in a different manner.

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My practice avoids that which would permanently damage the instruments—but this is not a consideration unique to cross-cultural composition: Western musicians are unlikely to happily endorse new works that damage their valuable instruments through harmful extended techniques, and so on, unless special circumstances prevail. Consider Anna Lockwood’s Piano Burning (1968), Piano Garden (1970) and Piano Drowning (1972)—however, using deformed piano is acceptable for performances of these pieces.30 Whether or not one has artistic license to use cross-cultural instruments in this way is a matter of personal preference. My practice avoids that which would permanently damage the instruments—but this is not a consideration unique to cross-cultural composition: Western musicians are unlikely to happily endorse new works that damage their valuable instruments through harmful extended techniques.
Seeger himself was taught a song which he ended up singing in a Suyá ceremony, and by virtue of their tradition, that song became "his" song, "if someone [else] sang it badly, [Seeger] could complain." Now imagine that Seeger's song was recorded, then transcribed by a composer, and then realized into a composition. If this was not with Seeger's blessing, he could complain; furthermore, he probably could claim copyright infringement or plagiarism; it is theft of his intellectual property as owner/controller of that song. Our imaginary composer's profit – if without Seeger's blessing – deprives Seeger of his royalty dues.

The above is just one example of how a traditional culture can allocate cultural intellectual property and ownership – and there are many other examples in the literature (see Ziff & Rao, 1997). My own ethical concern is that I, as a composer, am not engaging in this kind of cultural theft. I do not believe that I am.

In an interview with Jack Body (2010), composer and colleague Michael Norris challenged Body to defend his process of transcription, to which Body replied:

Historically, of course, borrowing from other composers was generally regarded as an act of homage… In general, I try to ensure my source material is acknowledged appropriately…

Norris: “I have found that some composers avoid transcriptions above expressed enthusiasm for my source material. However, I believe my transcriptions will stimulate a curiosity in the listener to search out the original music upon which my transcription is based.”

In fact, one of my hopes is that my transcriptions will stimulate a curiosity in the listener to search out the original music upon which my transcription is based. This was one of the reasons behind my double CD Pulse, which enabled people to hear the source material alongside my transcription of it. In pulse, I recast music for the string quartet from the balungan of an old, traditional, public domain Javanese gamelan piece, Ketawang Wigena Pelog Nem, extrapolating the individual parts of the piece through a process of prescriptive transcription – composing out from the balungan with my own technique. Moreover, the transcriptions are unique personal interpretations of folklife as a creative musical practice.

The above is just one example of how a traditional culture can allocate cultural intellectual property, and Norris challenged Body to defend his process of transcription, to which Body replied:

There is no cultural property in intellectual property. Our immediate composer's property – intellectual property – is that of his intangible property, and there are many other examples in the literature (see Ziff & Rao, 1997). My own ethical concern is that I, as a composer, am not engaging in this kind of cultural theft. I do not believe that I am.
knowledge of how the gamelan instruments would generate their parts (rather than descriptive transcription – writing down what I hear traditional performers play in a specific performance).

I feel that these two approaches are ultimately more satisfying than other transcription-based approaches as they involve an element of coming to terms with the music itself; compositions in the past that I have based on descriptive transcription (Body's approach) have not, for various reasons, I feel, been as successful as these two pieces, which are compositions and not merely arrangements.

Furthermore, matters of both authenticity and degradation are important for composers to consider, as it can be harmful to a culture's reputation to mistakenly misidentify conventions, or misallocate authenticity. This can be avoided, I believe, by working with a master musician from the relevant culture, and this is why I have collaborated with Budi Putra and Wang Hui over the course of my composing for gamelan and yangqin respectively. Furthermore, I do not allocate cultural authenticity to any of my cross-cultural compositions – none of them are Indonesian or Chinese. Moreover, there is an important consideration regarding the continuum between the preservation of a tradition's music culture, and innovation – traditionalists-about-music like to see that the music of their tradition is being preserved and when performed, it is as close as possible to the historic tradition; traditionalists-about-music, according to Seeger's account, The case is that symphonies should be played in 440Hz, and so on. I suppose that the aforementioned Suyá people are reasonably traditional-about-music, according to Seeger's account. The catch is whether or not there is room in the tradition for creative, experimental composers to present something that is different. Indonesia and China are both countries that pride themselves on their traditional music and they continue to preserve it by keeping archives and through the performance of a tangible piece, while at the same time promoting experimentation.

Worldwide, development and innovation is crucial in many music traditions, and this was the case with the gamelan compositions such as those by Ian Dunlop and the Gamelan Javanese ensemble Gending Prawirotaman. Dunlop's compositions, such as the model compositions of the 1970s, emphasize the old-fashioned gamelan notions of composition and were meant to be used as a basis for composition. Furthermore, Dunlop's compositions were based on traditional gamelan structures and were meant to be performed by master musicians. This was important for composers to consider, as it can be harmful to a culture's reputation to misallocate authenticity to compositions or performances, which of both authenticity and degradation are important for composers to consider.

Reasons, I feel, have been as successful as these two pieces, which are compositions and not arrangements. The past few years have been based on descriptive transcription (body's approach) have not been as successful as these two pieces, which involve an element of coming to terms with the historic tradition in a specific performance. I feel that these two approaches are ultimately more satisfying than other transcription-based techniques.
been pointed out that the notion that an artform must be preserved, never allowed to change, is foreign to many traditional musicians (see Fang, Pratt, Provine & Thrasher, 1981).

My own compositions can, I imagine, be placed in different points along a continuum between preservation of musical materials and innovation – *Ketawang Anggun Slendro Manyura*, *Ladrang Santai Slendro Sanga* and *Gendhing Tarikan Pelog Nem* contain conventional forms and are composed in a traditional style, albeit with Western solo instruments; *Elegy* completely abandons these forms and the gamelan instruments are used to microtonally and timbrally enhance the piano. The important matter is, as Stockhausen argues, ‘not striving for a “synthesis” where everything is swallowed up into a gigantic mishmash... The idea isn’t to obliterate traditional music but rather to diversify its effectiveness.’ I feel my approaches contribute to this creation and development of a new tradition – cross-cultural composition – and not compromising any existing traditional musical traditions.  

IV. Practical concerns

The purpose of this section is to share a personal account of several practical concerns relevant to cross-cultural composition – tuning discrepancies between instruments, notational issues, collaborative input from performers, and recording. I will first, however, discuss three activities that I engaged in during the early stages of my Master's enrolment, for the purpose of becoming more familiar with the process of combining gamelan with Western instruments (see Appendix IV for recordings of these).

First, in collaboration with Jack Body, I wrote a violin solo for the Japanese gamelan piece Lelagon Prau Layan Pelog Nem. Violinist Tristan Carter improvised upon this melody, using what Body and I gave him as a starting point. It was very easy to put the piece together in rehearsal due to the performer’s excellent musicianship, and because the violin’s tuning is not as fixed as a fretted or keyed instrument. Matching the violin’s pitches with the gamelan did not cause much fuss, and the melody beautifully spoke over the top of the gamelan’s texture.

The process of combining gamelan with Western instruments did not cause much loss, and the melody beautifully spoke over the top of the gamelan’s texture. The pitches of the gamelan did not need much tuning, while the violin’s pitches with the gamelan were quite manageable, and Body and I improvised upon this melodic line to create a seamless piece.
This was a rewarding practice exercise in composing a Western solo for gamelan in preparation for composing my own three original gamelan pieces in traditional Javanese style with Western solo instruments.

Second, inspired by the recording of Terry Riley's famous minimalistic work In C (1964) by the Shanghai Film Orchestra, 37 using traditional Chinese instruments, I led an SMP Ensemble performance of it with two clarinets, trumpet, saxophone, double bass and five gamelan players. 38 The Western instruments were tuned to match the gamelan's B-flat (pelog/slendro), but the performers did not make any other special allowances for their other pitches – so as the piece progressed, a new layer of musical interest (the intervallic/microtonal discrepancies between the equal tempered Western instruments and the gamelan) developed and evolved throughout the performance. As the musicians moved through the melodic cells of the piece at their own pace, the intonation and beating evolved and changed. This too was a rewarding exercise in working with these microtonal pitch discrepancies, and was an influence on my own compositional practice.

Third, I arranged – as a hommage – Helen Bowater's solo violin piece Zingaro (1988), for SMP Ensemble, and was a fruitful exercise in 'assimilating' gamelan instruments into a Western chamber ensemble. I liked the instrumentation, and used it in my composition Cycles, Shadows. This was also performed by the ensemble, conducted by the author, featuring two clarinets, number tenor saxophone, double bass and five gamelans.

Shanghai Film Orchestra (1992), In C (Celestial Harmonies Records).

38 Because of the limited pitches of the gamelan, the piece was performed in B-flat so that the gamelan phrases were closer to the Western phrases of the melodies that comprise Riley's score.
I undertook these three exercises to raise my awareness of the practical issues in cross-cultural composition. One concern that I have already mentioned is the pitch discrepancies and different tuning systems between Western instruments and Javanese gamelan. This was not an issue for the **yangqin**, because it is now tuned according to the Western chromatic scale. For my pieces that involved gamelan, I decided how to resolve the issue on a case-by-case basis.

1. Ignoring the differences and allowing the instruments to be "out of tune" with each other (piano in *Elegy*; accordion in *Gendhing Tarikan*).
2. Tuning the Western instruments/voice to closely match the gamelan's pitches (viola in *Ketawang Anggun*; string quartet in *Wigena*; voice in *Ladrang Santai* and *To*).
3. Tuning one specific Western pitch to match one specific gamelan pitch, and allowing the rest to be slightly "skewed" (clarinet in *Gendhing Tarikan*; guitar in *Ladrang Santai*; clarinet, viola, and bassoon in *Cycles, Shadows*).

My decisions depend upon the malleability of the tuning of the Western instrument. Importantly, the results of these approaches are very different, as they shape different structures of tension-release for the listener's aesthetic experience.
Each approach is interesting in and of itself, and I do not wish to privilege one over the others:

the choice of approach for a composer should be appropriate to the intentions of the composition and the instruments he/she is working with.

Another practical concern for cross-cultural composers is notation, especially because many musicians engaged in non-Western music making do not read Western notation. Thankfully, my yangqin player Wang Hui could read Western notation, so I was able to compose my Melody for Violin and Yangqin in standard Western notation. However, the Yangqin part in Ke-row-an could be performed 'authentically' in other ways, and so I ontology when the performance would be performed

My scores for Ketawang Anggun, Ladrang Santai and Gendhing Tarikan are a little different: the Western instruments each have their own staff and there is also a staff that represents the *balungan* (gambang, saron, demung, peking and bonang barung). Also, I transcribed To – into cipher notation for him to read.

Conversely, Budi S. Putra, director of Gamelan Padhang Moncar, does not read Western music confidently, so I transcribed To – into cipher notation for him to read.

Essentially, I feel that would confuse many performers who cannot read from a staff anyway. Essentially, I feel that the concept of *garap* (which in any case would not represent the performance any better) and separate scores for each individual gamelan instrument (many of these would be arbitrary due to the nature of the performance) would be unnecessary with the current notation system. By organizing the score of the gamelan in this way, I avoid unnecessary confusion on the part of the performers.

Essentially, the short scores are for the purposes of score reading and directing an ensemble, based on the cipher notation, and the *garap* will be realized differently by different performers, instruments, and so on, and are notated because they will perform *garap* in the viable solo is designed to interweave in and out of the *garap* part. The other gamelan instruments do not read Western notation, and so the *garap* part in Ke-row-an is also given in the three scores, which are extended programme notes. A gamelan short score is also given in the three scores, which represent the gamelan in *garap*.

Conversely, Budi S. Putra, director of Gamelan Padhang Moncar, does not read Western music confidently, so I transcribed To – into cipher notation for him to read.
individual parts and this approach is certainly more time efficient given the nature of the pieces. For

recording, however it is done, can be problematic. Pieces recorded layer by layer may lose the

unity and spontaneous musicality that defines a well-performed work. However, if possible

recording works well. The Western solo instruments too, were added over the

end of these ethnomusicological insights could be easily mixed into the gamelan ensemble with close-

recording similarity – the gamelan ensemble was recorded first, any additional gamelan

recorded subsequently. The gamelan ensemble was recorded over the top, each instrument

represented by a particular performer. Greg’s input in Wigena helped shape the rebab solo and inform

Wigena and To – both benefited from welcome input from Greg Street and Budi S. Putra,

Furthermore, another issue is the undertaking of recordings of the pieces. Recording the

Western studio, Ketawang Anggun, Ladrang Santai and Gendhing Tarikan were

collected gamelan instruments in a separate studio, and then finally recorded the rebab solo over

recorded live, workshops performed live by the New Zealand String Quartet. I then added the

solo instruments, Wigena was put together layer by layer – the string quartet part was

recorded separately I thought that would be easier and more efficient than recording and

separately as a whole piece with performers. Greg’s input in Wigena was put together layer by layer

Kusa and Cycles, Shadows were recorded live in concert, and To – was recorded live while

workshopping the piece with the performer. Primes was recorded in a recording studio, Tabula Rasa

portraits, the electroacoustic pieces aside, Primes was recorded in a recording studio, Tabula

Finally, another issue is the undertaking of recordings of the pieces. Recording the works in my

portfolio, however it is done, can be problematic. Pieces recorded layer by layer may lose the

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Wigena and To – both benefited from welcome input from Greg Street and Budi S. Putra.

Another issue for cross-cultural composers regards the collaborative input from the performers.

practice of the time. A performer trained in the Western style of performance when performing a

period piece in a recording studio, the Baroque practices of realizing a basso continuo

This approach is a cross-cultural analogy to the Baroque practices of realizing a basso continuo

part (at performer’s discretion), and the addition of characteristic decoration/ornamentation that

a performer trained in the idiom employs when performing a period piece, in keeping with the

practice of the time.
I employed it in, given time constraints, performer availability, and technologies available. Some of the recordings are more successful than others; all more or less capture the composition they represent.
CHAPTER THREE

COLLECTED EXTENDED PROGRAMME NOTES

I.
Cycles, Shadows
for clarinet in B-flat, viola doubling bassoon (or viola and bassoon), Javanese
gender

II.
Wigena
for string quartet, rebab solo, and Javanese instruments

III.
Melody for Violin and Yangqin
for violin and Chinese yangqin (dulcimer)

IV.
To –
for Javanese musician (voice and gender)

V.
Three Pieces for Gamelan in Traditional Central Javanese Style with Western
Instruments:

1.
Ketawang Anggun Slendro Manyura
for Javanese gamelan and viola solo

2.
Ladrang Santai Slendro Sanga
for Javanese gamelan, gerong (male unison choir) and guitar solo

3.
Gendhing Tarikan Pelog Nem
for Javanese gamelan and viola solo

VI.
Mermecolion
electroacoustic

VII.
Podró
electroacoustic

1 Despite their combined extended programme note, these three works should be considered separate
VIII. Elegy for Javanese gamelan and piano

IX. Tabula Rasa for Chinese yangqin (dulcimer) and live electronics

X. Primes for clarinet in B-flat solo

XI. Outside my front door piano solo

XII. After Clive Bell

for clarinet in B-flat solo

X. For Chinese yangqin (dulcimer) and live electronics

IX. Tabula Rasa

X. For Javanese gamelan and piano

VIII. Elges
**Cycles, Shadows**

Clarinet in B-flat, viola doubling bassoon (or viola and bassoon), Javanese gender

This work was written for performance by myself and two friends: clarinet virtuoso and winner of the 2009 New Zealand School of Music Concerto Competition, Andrzej Nowicki, and Kylie Nesbit, who is equally accomplished on both viola and bassoon. The 'cycles-within-cycles' structures and intense performance requirements of the piece pay tribute to Jack Body's *Epicycle* (1989, r.2004); while the rhythms are derived from traditional Chinese *erhu* music.

*Cycles, Shadows* was premiered at the 'Gong Crazy!' concert series in October 2009. *Cycles, Shadows* is constructed from a 19-note pitch cycle – Ab, D, Bb, B, A, Db, B, Ab, D, Bb, Ab, A, B, Bb, Ab, B, Eb, Ab, F – and looped shorter cycles from within that 19-note cycle. This 19-note cycle uses eight of the notes of the chromatic scale, and a ninth note, C, is used intermittently as a non-cycle, decorative note (for instance, see bb. 21-22). Thus, there are always those extra notes not available: G# and G, an approach borrowed by composer Henry Cowell, whose serial procedures do not comprise all twelve chromatic notes. These are always those extra notes, which are always those extra notes.
Fig. 3.1: Mark Langford: Mostly in B flat (1989), bb. 1-5, with the 22-note cycle the piece is based on annotated. Published by Waiteata Music Press, New Zealand (1990)

Fig. 3.2: Mark Langford: Mostly in B flat (1989), bb. 1-5, with the 22-note cycle and its inversion, played simultaneously.
Fig. 3.3: Jack Body: *Epicycle* (1990, r.2004), bb. 1-13, with the 36-note cycle the piece is based on, annotated. The only pitch variation so far is that the first 1 is a G3, and subsequent annotations (1)'s are G4. Published by Waiteata Music Press, New Zealand (2006).
Cycles, Shadows is structured thus (please note b1- is a truncation of b1):

<table>
<thead>
<tr>
<th>Section</th>
<th>Themes</th>
<th>Transitional sections</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>a  b  c</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>a1  b  c1  T1</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>a1 a2 b  c2  T2</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>a3  b1  c3  T3</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>a4  b1-  c4  T4</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>a5  b1-  c5</td>
<td></td>
</tr>
</tbody>
</table>

Fig. 3.4: Structure of Cycles, Shadows

Within these sections (not to be confused with the rehearsal marks noted on the score), the pitch cycle and cycles-within-the-cycle are indicated below (with non-cycle decorative grace-notes included, but cycle and cycles-within-the-cycle are indicated below)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>8-19, 1-19, 1-19</td>
<td>1-19, 1-19, 1-19</td>
<td>1-19, 1-19, 1-19</td>
</tr>
<tr>
<td>D</td>
<td>1-19, 1-19, 1-19</td>
<td>1-19, 1-19, 1-19</td>
<td>1-19, 1-19, 1-19</td>
</tr>
<tr>
<td>F</td>
<td>1-6, 1-6, 1-6, 1-6</td>
<td>1-6, 1-6, 1-6, 1-6</td>
<td>1-6, 1-6, 1-6, 1-6</td>
</tr>
</tbody>
</table>

(1 = Ab, the first pitch of the 19 note cycle, 2 = D, the second pitch, and so on)

Within these sections (not to be confused with the rehearsal marks noted on the score), the pitch cycle and cycles-within-the-cycle are indicated below (with non-cycle decorative grace-notes included, but cycle and cycles-within-the-cycle are indicated below)
This pitch structure is marked on the following annotated copy of the score:
Fig. 3.5: Annotated score of Cycles, Shadows

No practical issues arose in rehearsal regarding the inclusion of the gamelan instrument in the ensemble – the Western instruments were tuned so that B-flat matched the gender's 6, and then we simply rehearsed the piece. The gender has two functions in the music. The first is to provide a tremolo drone underneath the melodic material of the other instruments, and often precede solo gender two-note motifs (e.g. bb. 41-47). The second is to play, intermittently, the cyclic melodic material along with the other instruments (e.g. bb. 1-4). These motives are preceded by solo gender two-note motifs (e.g. bb. 1).

However, because of the tuning of the gender, its pitches, other than 6, did not quite match up with the Western instruments. Consequently interesting beatings were used structurally in some c and T sections. I feel that my approach to combining the gender with Western instruments was fruitful and successful. This was used specifically in some c and T sections. I felt that my approach to combining the gender with Western instruments generated interesting beatings. This was used specifically in some c and T sections. I felt that my approach to combining the gender with Western instruments generated interesting beatings. This was used specifically in some c and T sections.

School of Music (Kelburn campus), Wellington
Performance History (as of 12 July 2010)
3 Oct 2009 Andrzej Nowicki (clarinet), Kylie Nesbit (viola/bassoon), Anton Killin (Javanese gender), Kythe Nesbit (violaphone), Anthon Killin

3 Oct 2009
4 Oct 2009 Andrzej Nowicki (clarinet), Kylie Nesbit (viola/bassoon), Anton Killin (Javanese gender), at "Gong Crazy!" at Adam Concert Room, New Zealand School of Music (Kelburn campus), Wellington

5 Oct 2009 Andrzej Nowicki (clarinet), Kylie Nesbit (viola/bassoon), Anton Killin (Javanese gender), at a Composer Workshop at Adam Concert Room, New Zealand School of Music (Kelburn campus), Wellington

25 Nov 2009 Andrzej Nowicki (clarinet), Kylie Nesbit (viola/bassoon), Anton Killin (Javanese gender), at the inaugural Music and Artists' Social Club Cinema SoundEX screening at Happy, Wellington
Several years ago, I wrote a suite for string quartet and thought that it was entirely

String quartet, Javanese instruments, Javanese rebab solo

The rebab (2-stringed solo upright fiddle) and the gong

The rebab (2-stringed solo upright fiddle) and the gong
Above, $V$ represents a kempul note, $( )$ represents a gong note, and $\downarrow$ represents a kenong note.

This is in order for the string quartet players and the rebab to be able to tune to each other and decide to employ a less approximation, much closer to Gamelan Padhang Moncar’s tuning.

Usually I approximate the pelog scale as in the first following example, but for Wigena I before approaching the final gong note of the piece’s structure, is the paduang’s highest pitch), which then descends: 6-5-4-2, 4-2-1, again, resolving tension performed in the final line of the piece’s structure. Nowhere is the dissonance of $4$’s, so the note clash against the pitches of these elaborating instruments. The consonant notes that follow (2 in every instance in Wigena), and the descending melodic phrasing towards the last note of the gatra (4-2-1 for the first instance; 4-2, 4-2-1-6-5 for the second instance) result in a more effective release of internal tension in the musical fabric: Likewise, the $7$’s are dissonant note in every instance in Wigena, and the descending melodic phrasing towards the last note of the gatra results in a more effective release of internal tension in the musical fabric: 

Wigena is a remarkable gamelan piece because, unusually, it comprises all seven notes of the pelog scale. 4 is always a dissonant note because gender and gambang do not have any 4’s, so in every instance in Wigena, and the descending melodic phrasing towards the last note of the gatra (4-2-1 for the first instance; 4-2, 4-2-1-6-5 for the second instance) result in an effective release of internal tension in the musical fabric: Likewise, the 7’s are dissonant note in every instance in Wigena, and the descending melodic phrasing towards the last note of the gatra results in an effective release of internal tension in the musical fabric: 

Usually I approximate the pelog scale as in the first following example, but for Wigena I decided to employ a finer approximation, much closer to Gamelan Padhang Moncar’s tuning. This is in order for the string quartet players and the rebab to be able to tune to each other and decide to employ a less approximation, much closer to Gamelan Padhang Moncar’s tuning.
piece can be realised with a much more accurate approximation of the scale than would be possible with the first given scale:

The pelog scale approximation

A finer pelog scale approximation used for Wigena

The string quartet parts are representations of the material that four of the instruments of the gamelan could be playing in an authentic realisation of the traditional piece in gamelan. The balungan line, played at the register of the demung, is given to the viola. The bonang barung part, which alternates and doubles the balungan notes, in anticipatory double time, is given to the cello. For example (here I underline the beats that match up together):

The bonang panerus part, which doubles the bonang barung in anticipatory double time an octave higher, is given to the first violin. For example:

The peking part, which doubles the balungan line, two octaves higher than the demung’s register, in double time:

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The bonang panerus part, which doubles the bonang barung in anticipatory double time an octave higher, is given to the first violin. For example:

The peking part, which doubles the balungan line, two octaves higher than the demung’s register, in double time:
Thus, **Wigena** was constructed around realising these patterns/parts via the string quartet, adding in the colotomic structure markings from the **gong**, **kempul**, and **kenong**, and working together with Greg Street – Gamelan Padhang Moncar's **rebab** player for many years – on the **rebab** melody, which is a combination of **Wigena**'s tradition melody in Solo (Surakarta) regional style (as compiled by Djumadi, 1986) and Greg's own personal decorative style. The ornamentative relationship between the **rebab** and the **balungan** can be followed by inspecting the following annotated copy of the score with the cipher numbers noted. (Note that for **rebab** notation, \_ represents a down-bow, and / represents an up-bow.)
The practice of transcription employed here, prescriptive transcription, is quite a different compositional device to other transcription techniques. For example, the double-transcription of Jack Body (see Body, 1991). Body’s technique is an external technique, transcribing and then...
instrumentating the essential musical parts (for instance, in his 1983 work *Melodies for Orchestra*), turning heard sound into a symbol (representation) and then back into sound again.

Mine is an internal technique – performing gamelan enabled me to create the symbol (representation) from my own knowledge of how the music works (not from listening to a piece of music) and then turning that back into sound via instrumentation. It is thus a composition, extrapolated from the balungan of an old traditional Javanese work.

Furthermore, there are new, popular music styles of Indonesia, such as *kroncong*, gamelan textures and parts performed by ensembles comprising violin, electronic keyboards, guitars, and so on; and *tarling*, “gamelan-like parts played on the guitars, supported by gongs and drums, textures and parts performed by ensembles combining violin, electronic keyboards, guitars, and so on.”

This kind of gamelan-inspired music with Western instruments has been established in Indonesia since the 1980s (Spiller, 2008) – proof that Western art music is certainly far from having a monopoly on cultural appropriation.

My version, gamelan-textures played by plucked strings, with *rebab* melody, is an internal technique – performing gamelan enabled me to create the symbol (representation) from my own knowledge of how the music works (not from listening to a piece of music) and then turning that back into sound via instrumentation.

This work has not been performed in concert. It was recorded in stages – string quartet first, when *gambang* instruments, and then *rebab* – see Chapter 2, Section 1V.

Nevertheless, I feel that the combination of textures and elements in my piece is fresh and exciting, and contributes a successful piece to the genre of cross-cultural music.
III. *Melody for Violin and Yangqin*

This piece was composed for Wang Hui, a Chinese *yangqin* player from Xiamen, China, visiting Wellington via the WARE (Wellington Asia Residency Exchange) programme, and Vector Orchestra violinist and member of the Wellington Xiamen Association, Elena.

Initially, I had ambitious ideas for this piece and spent a long time working on a highly abstract, minimalistic score, which contained explosive, fluctuating detail. Ultimately, I decided to give this approach a try for violin and *yangqin* – and the *Melody for Violin and Yangqin* is what came out of it, reflecting all of the previous material I had composed.

The piece is composed of four sections, each of which comprises a five-bar phrase, a three-bar phrase, and then a four-bar phrase (except the very last section whose last phrase is two bars). The musical material is all closely related – I have aimed for an economy of material.

In *Melody for Violin and Yangqin*, the music moves through different tonal/modal areas, often using chromatic voice-leading. Each of the piece's four sections comprises a five-bar phrase and a three-bar phrase. The work explores some interesting modulations and harmonic relationships, and the harmonic implications of the two instruments can be traced by seeing in the following annotated score.

The work was well received in performance by the audience and the performers. Indeed, the two performers took the opportunity to perform the work in China.
Section 1

Section 2
Xiamen, China

12 June 2010 Performed by Elena (violin) and Wang Hui (yangqin) at Little Eftel Music Hall, Wellington Concert Hall, New Zealand School of Music, Wellington

26 March 2010 Performed by Elena (violin) and Wang Hui (yangqin) at Little Egret Music Hall, Xiamen, China

PERFORMANCE HISTORY (as of 12 July 2010)

Fig. 3.10: Annotated score for Melody for Violin and Yangqin

Section 4
It is a short piece for a solo (male) Javanese musician, for voice and gender, in pelog scale. It is inspired by a short verse of Edgar Allan Poe's "To —" (1829):

I heed not that my earthly lot
Hath little of earth in it
That years of love have been forgot
In the hatred of a minute:
I mourn not that the desolate
Are happier, sweet, than I,
But that you sorrow for my fate
Who am a passer by.

Saya orang lewat, 'I'm a passer by', is my original lyric representing the mournful, yearning mood of this verse. It was translated into Indonesian with assistance from Yono Sukarno.

Originally I conceived this piece as a solo vocal miniature, possibly to be accompanied by fixed media. I had a rehearsal with performer Budi S. Putra, director of Gamelan Padhang Moncar, to workshop a vocal part that I had composed, and I recorded this entire session. Although Budi began singing solo, after a short while he started doubling parts of his vocal line on gender, to help him get his pitches. What he produced quite unintentionally resonated with me, and I decided to abandon the idea of fixed media, and instead use live gender. I then listened to the recording of this session. Each run-through of the piece had a different gender accompaniment, and using these I composed this composition. Although the ultimate compositional decisions and using these I composed this composition, all through this session. Each run-through of the piece had a different gender accompaniment, decided to abandon the idea of fixed media, and instead use live gender. I then listened to the recording of this session. Each run-through of the piece had a different gender accompaniment, and using these I composed this composition. Although the ultimate compositional decisions and using these I composed this composition.

All three gender barung are required to play this piece, because they each contain different sets of pitches. The slendro instrument is required for the pelog 4s (i.e. slendro 5s), and both pelog instruments are required so that pelog 1s and 7s are available.

The instrument that is repeated throughout the piece, Saya orang lewat, is inspired by a short verse

I V.

To –

Javanese musician (male voice and Javanese gender)
Three Pieces for Gamelan in Traditional Central Javanese Style with Western Instruments

Ladrang Santai [laras] Slendro [pathet] Sanga
Gendhing Tarikan [laras] Pelog [pathet] Nem

In keeping with Javanese conventions, the full titles of these three pieces for gamelan describe the pieces' form (bentuk), scale (laras) and mode (pathet). The individual titles, Anggun, Santai, and Tarikan, reflect the piece's mood and expression – respectively 'Graceful'; 'Relaxed'; and 'Pulling' or 'Attracting'.

Anggun is of ketawang form, in the slendro scale, and of pathet manyura. Santai is of ladrang form, in the slendro scale, and of pathet sanga. Tarikan is in pelog scale, of pathet nem, and the form gendhing can be a little ambiguous; here, Tarikan has an original form at the beginning – komposisi baru – then a transition into a traditional ketawang form. All three include Western instrument solos: Anggun includes viola, Santai includes guitar, and Tarikan includes accordion and clarinet. Moreover, Santai also includes a gerong (male choir) part, singing in English.

The scores are notated in Western staff notation in my composition portfolio, with the cipher number underneath the pitch which is only an approximation. No two gamelan makers tune their gamelan ensembles alike, so I do not feel that it is useful to complicate the score with ultimately unnecessary microtones:

Pelog: 1 (D), 2 (Eb), 3 (F), 4 (G#), 5 (A), 6 (Bb), 7 C
Slendro: 1 (Db), 2 (Eb), 3 (F), 5 (Ab), 6 (Bb)

See Chapter 1 Section III for further discussion of the pitches and tunings of the Javanese gamelan.

Also includes a gerong (male choir) part, singing in English.
Suwuk: the ending of a gamelan piece. After a small speed up and drastic slow down initiated by the kendhang player, the gamelan players withhold their last note until after the final stroke from the gong ageng. The term suwuk can also refer to a line or gatra (bar) of music to substitute in, signalling the end of the piece with a different set of notes. In Tarikan, there is a suwuk line to substitute in for the final line of the final cycle through the piece.

Ketawang: a form, which indicates to the performers of the punctuating instruments (as notated by the symbols above this balungan example) to play this specific punctuating cycle:

\[
\begin{align*}
&\text{ketawang:} \\
&\text{(5)} \\
&\begin{array}{cccccc}
\text{\(\bigcup\)} & \text{o} & + & \text{o} & \text{\(\bigcup\)} & \text{o} \\
1 & 2 & 1 & 6 & 2 & 1 & 6 \\
& \text{\(\bigcup\)} & \text{o} & + & \text{o} & \text{\(\bigcup\)} & \text{o} \\
1 & 2 & 1 & 6 & 2 & 1 & 6 \\
& \text{\(\bigcup\)} & \text{o} & + & \text{o} & \text{\(\bigcup\)} & \text{o} \\
1 & 2 & 1 & 6 & 2 & 1 & 6 \\
& \text{\(\bigcup\)} & \text{o} & + & \text{o} & \text{\(\bigcup\)} & \text{o} \\
1 & 2 & 1 & 6 & 2 & 1 & 6 \\
& \text{\(\bigcup\)} & \text{o} & + & \text{o} & \text{\(\bigcup\)} & \text{o} \\
1 & 2 & 1 & 6 & 2 & 1 & 6 \\
\end{array}
\end{align*}
\]

\[\text{o} = \text{kempyang,} \quad + = \text{ketuk,} \quad - = \text{kenong,} \quad \text{V} = \text{kempul} \quad \text{and} \quad (\text{gong ageng})\]

For ketawang, four gatra comprise one gongan (line before a strike of the gong ageng), and a ketawang structure conventionally comprises two gongan.

Ladrang: a form, which indicates to the performers of the punctuating instruments (as noted by the symbols above this balungan example) to play this specific punctuating cycle:

\[
\begin{align*}
&\text{ladrang:} \\
&\text{(5)} \\
&\begin{array}{cccccc}
\text{\(\bigcup\)} & \text{o} & + & \text{o} & \text{\(\bigcup\)} & \text{o} \\
1 & 2 & 1 & 6 & 2 & 1 & 6 \\
& \text{\(\bigcup\)} & \text{o} & + & \text{o} & \text{\(\bigcup\)} & \text{o} \\
1 & 2 & 1 & 6 & 2 & 1 & 6 \\
& \text{\(\bigcup\)} & \text{o} & + & \text{o} & \text{\(\bigcup\)} & \text{o} \\
1 & 2 & 1 & 6 & 2 & 1 & 6 \\
& \text{\(\bigcup\)} & \text{o} & + & \text{o} & \text{\(\bigcup\)} & \text{o} \\
1 & 2 & 1 & 6 & 2 & 1 & 6 \\
& \text{\(\bigcup\)} & \text{o} & + & \text{o} & \text{\(\bigcup\)} & \text{o} \\
1 & 2 & 1 & 6 & 2 & 1 & 6 \\
\end{array}
\end{align*}
\]

\[\text{o} = \text{kempyang,} \quad + = \text{ketuk,} \quad - = \text{kenong,} \quad \text{V} = \text{kempul} \quad \text{and} \quad (\text{gong ageng})\]

For ladrang, eight gatra comprise one gongan (line before a strike of the gong ageng), and a ladrang structure usually comprises two gongan. The first gongan is a merong section, which may be cycled several times before moving on to the second section, a neluk section, which is played only once before returning to the merong and repeating the process.

Ketawang: the first part of a ketawang or ladrang, etc., which is followed by a Neluk section.

Neluk: the second part of a ketawang or ladrang, etc., which follows a Neluk section.

Merong: the first part of a ketawang or ladrang, etc., which follows a Neluk section.

Ngelik: the second part of a ketawang or ladrang, etc., which follows a Merong section.

Etymologically, ngelik means "go up" or "get higher"; the balungan gets higher, and the elaborating instruments rise in accordance, playing higher-pitched patterns, or melodic lines that

Substitution instruments use in accordance, playing higher-pitched patterns, or melodic lines that
lend themselves toward higher pitches. The end of the angelik section requires a return to a lower pitch base, for the return to the merong section. Umpak Also spelled ompak. A transitionary section between structures or sections, for instance, in Tarikan it denotes the transition between the introductory section, and the ketawang section. Also, sometimes a merong section can be called an umpak section, but because this is lower pitch based, for the return to the merong section.

Irama The relationship between the speed of the balungan (core melody, performed by slenthem, saron, demung) and the rhythmic density of the ornamentation/decoration of the peking, bonang, and the instruments performing garap (gambang, gender, rebab, suling). The slower the irama (i.e. the longer the space between adjacent notes of the balungan), the busier the other instruments. The three irama that I work with here in my compositions are lancar, tanggung, and dadi. It is perhaps easiest to see irama by considering how often the peking plays, relative to the balungan.

For example (here I underline the beats that match up together):

**Lancar**

Balungan: 1 2 1 6
Peking: 1

**Tanggung**

Balungan: 1 2 1 6
Peking: 1 1 2 1 6

**Dadi**

Balungan: 1 2 1 6
Peking: 1 1 1 2 1 6

Lancar The fastest of the three irama I work with in these compositions. The buka for both Anggun and Santai starts in irama lancar, and slows down, guided by the kendhang, to tanggung for the first gong ageng note, which is also entry point of all the other gamelan both Anggun and Santai start in irama lancar, and slows down, guided by the kendhang, to the buka for the Irama of the whole irama I work with in these compositions. The buka for

Iramas and Irama Lancar: The entire first section of Tarikan is lancar before the umpak transition to the irama. The faster irama, the faster the speed of the melodic core of the balungan (le: the louder the space between adjacent notes of the balungan), the busier the peking, bonang and the instrumental ornamentation (gambang, gender, rebab, suling). The rhythm section (core melody, performed by slenthem, saron, demung) and the rhythmic density of the ornamentation/decoration of the balungan also mean transition (I have avoided that use here).
Tarikan begins in tanggung and the first cycle through stays in this irama, until the end of the last line when a transition to dadi occurs, and the rest of the piece remains in irama dadi.

Dadi

The slowest irama that I use for these compositions for the balungan, and the busiest for the elaborating instruments. Dadi is considered the home irama for ketawang and ladrang structures; Santai and Anggun are predominantly in this irama. Often, elaborating instruments like rebab and sulung only play in irama dadi sections of a piece, dropping out if the irama shifts into tanggung. In the recording of Anggun, the rebab and sulung do exactly that.

Salisir

Salisir is one of the several poetic forms to which the lyrics of a gamelan piece traditionally conform (see Sumarsam, 2002). Salisir has a specific meter – four lines of text, eight syllables per line, and a specific rhyme scheme –

<table>
<thead>
<tr>
<th>Vowel sound</th>
<th>E.g.</th>
<th>E.g.</th>
</tr>
</thead>
<tbody>
<tr>
<td>/i/</td>
<td>“book”</td>
<td>“tong”</td>
</tr>
<tr>
<td>/u/</td>
<td>“book”</td>
<td>“tong”</td>
</tr>
<tr>
<td>/o/</td>
<td>“book”</td>
<td>“tong”</td>
</tr>
<tr>
<td>/a/</td>
<td>“book”</td>
<td>“tong”</td>
</tr>
<tr>
<td>/e/</td>
<td>“book”</td>
<td>“tong”</td>
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<tr>
<td>/o/</td>
<td>“book”</td>
<td>“tong”</td>
</tr>
<tr>
<td>/i/</td>
<td>“book”</td>
<td>“tong”</td>
</tr>
<tr>
<td>/u/</td>
<td>“book”</td>
<td>“tong”</td>
</tr>
</tbody>
</table>

The first line ends either in a /u/ vowel sound (e.g., “book”), or in a /i/ vowel sound (e.g., “tong”).

Also, a salisir is a kind of poetic riddle (Spiller, 2008). My original lyrics for Santai demonstrate this concept:

Out in the shade, no work to do
Nylon and glass, there we all are
Under a pohutukawa
Singing, drinking, playing guitar

In keeping with Javanese convention, the first two lines point to metaphors and the third and fourth lines elucidate these metaphors, often describing the environment or expressing a moral. Here, “out in the shade” connects with “under a pohutukawa”; “nylon and glass” connects with “drinking, playing guitar.” The verse paints a picture of friends relaxing together on a warm day – making music and having a few drinks together – relaxing (Sanjna).

Because traditionally this is up to the kendhang player, as conversion the balungan is still the individual title of the piece.

I shall now consider each of the three works individually. In performance, in is the preference of Gamelan Padhang Moncar to read from cipher notation, and this I give below.11 As is convention, the kendhang player follows the kendhang player who directs the changes in tempo and dynamics (so, for the solos’ performers Gamelan Padhang Moncar reads from cipher notation, and this I give below).11 The performers

11 Not all gamelan ensembles in the West have this preference – Ensemble Gendhing in Holland only plays new compositions in Western notation, while other notation for traditional gamelan pieces (body, pera, kom, pab, etc.)
There is the balungan performer's play the pelogian as given in the other notation, the embelishment.

That is, the balungan performers play the pelogian as given in the other notation, the embelishment.

However, the gendang players should not be mezzoforte. This is essentially an instruction to play very loud on the score that this introduction section should be fortissimo, and that when the keytawang section begins, and when the keytawang starts, to drop to a lower volume in response to the kendhang.

Moreover, dynamic markings are absent from gamelan cipher notation. Dynamics are tied up in performance practice, controlled by the kendhang player. For this reason, I have not indicated dynamic marks for the gamelan players on the score for Tarikan. For this reason, I have not indicated dynamic markings for the gamelan players on the score for Agung. For Tarikan, due to its unusual form, I have indicated on the score that the introduction section should be fortissimo, and that when the keytawang section begins, and when the keytawang starts, to drop to a lower volume in response to the kendhang.

Similarly, the keytawang performers should take note of how much the instrument's sound above and below the cipher number, especially the balungan instruments. The balungan players must not have a high, nor low, nor notes outside of the one octave range of the balungan and read with.

High notes, and low notes outside of the one octave range of the balungan are notated with dots above and below the cipher number, respectively. Balungan performers will not have a low 5, so they play their normal, low 5 instead (the low 5 is specific to the embellishing instruments only). Similarly, the keytawang performers should take note of how much the instrument's sound above and below the cipher number, especially the balungan instruments. The balungan players must not have a high, nor low, nor notes outside of the one octave range of the balungan and read with.

The performance of musicians based in traditional practice, and specific sample's show, the music to be extrapolated by musicians trained in, or under the supervision of musicians trained in, traditional performance techniques allows the music to be extrapolated by musicians trained in, or under the supervision of musicians trained in, traditional performance techniques.
The parts for the bonang panerus, bonang barung, peking, saron, demung, and slenthem. The

Ketawang Anggun
Slendro Manyura

Fig. 3.11: Cipher notation for Ketawang Anggun Slendro Manyura

Bonang plays the buka and the other gamelan instruments join in on the first gong ageng note (last note of the buka). Like a traditional ketawang, anngsaan plays through the goongan that (last note of the buka). Like a traditional ketawang, anngsaan plays through the goongan that (last note of the buka). Like a traditional ketawang, anngsaan plays through the goongan that (last note of the buka). Like a traditional ketawang, anngsaan plays through the goongan that (last note of the buka). Like a traditional ketawang, anngsaan plays through the goongan that (last note of the buka). Like a traditional ketawang, anngsaan plays through the goongan that (last note of the buka). Like a traditional ketawang, anngsaan plays through the goongan that (last note of the buka). Like a traditional ketawang, anngsaan plays through the goongan that (last note of the buka). Like a traditional ketawang, anngsaan plays through the goongan that (last note of the buka). 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Given bonang and peleng parts are essentially just one representation of a possible extrapolation of the balungan melody on those instruments. I have not notated gender, rebab, sulung, and so on, because these performers can work out acceptable garap from the balungan, and different performers with different musical backgrounds and styles from different regions will choose different though appropriate, melodic patterns with different melodic backgrounds and styles. I have not notated gerong, kembang, and so on, because these performers can work out acceptable garap from the balungan, and different performers with different melodic backgrounds and styles from different regions will choose different though appropriate, melodic patterns with different melodic backgrounds and styles.
Gendhing Tarikan Pelog Nem

Overscored numbers are “quavers” or twice as fast as standard balungan notes. Numbers that are underscored with a “x” should be held, muted with the player’s other hand whilst they are being struck, for a dampened, muted percussive effect.

Intro (irama lancar) – play through three times. No colotomy other than kempul (V), gong suwuk (S) and gong ageng. On third time through, after the gatra marked with an *, move on to the umpak. Because the form is not traditional until the kempul section, I have included some swark (S) and gung anga. On third time through, after the gatra marked with an *, more gatra may be played.

Umpak (irama lancar) – play through these lines. No colotomy other than kempul (V).

The score comprises the gerong and guitar parts, and the balungan line, which is accompanied by its cipher notation. Like for Anggun, the kempul and gong ageng colotomy is given with the cipher notation, but not the other colotomic indications.

For the bombang pandanis, bombang pandanis, deep gong, demung and slenthem, again, the given cipher notation is for the given part, not the other colotomic indications. I have laid out on short score the parts by the given notation. Like for Anggun, the kempul and gong ageng colotomy is given with the cipher notation, but not the other colotomic indications.

The score comprises the gerong and guitar parts, and the balungan line, which is accompanied by its cipher notation.

Some reasons as Anggun, I have not notated gender, rebab, suling and so on. The score comprises the gerong and guitar parts, and the balungan line, which is accompanied by its cipher notation. Like for Anggun, the kempul and gong ageng colotomy is given with the cipher notation, but not the other colotomic indications.
Ketawang
– first time through
irama tanggung.

Each line of the entire structure is played through one-by-one. During the last line, slow down for dadi, and transition to dadi by the beginning of the repeat of the structure. Play through the ketawang twice more in irama dadi, and on final time through the cycle, after the gatra marked with an *, move on to the

suwuk
section. (no longer mark colotomy here because it is now a traditional ketawang.)

Suwuk
– slowing down for traditional style ending

This piece is unusual in its pathet as well as in its structure. Tarikan does not neatly fit into any of the pathet categories of laras pelog. I have given it nem essentially for the embellishing instruments that perform gendhing (so they can use patterns from that pathet), not because

it expresses the modal sound qualities of nem. However, this was not an arbitrary choice: it could be seen as traditional style ending.

Fig. 3.13: Cipher notation for Gendhing Tarikan Pelog Nem
The opening section near the end of the transition from nem to dadi, for performance in the dadi section, so on.

The rebab, slenthem, gambang, gender (and so on) players will likely first appear in the ketawang section near the end of the transition from nem to dadi, for performance in the dadi section.

Moreover, the accordion plays a gambang-style melody in the dadi part of the ketawang section, and so on.

The score comprises the clarinet and accordion parts, and the balungan line, which is accompanied by its cipher notation. Like for Anggun, the kendhang and gong ageng colotomy is given with the cipher notation for the score-reader to follow and I have not given the other colotomic indications because they do not play in the opening section ('intro' and umpak), and in the ketawang part, players of those instruments already know when and what to play. I have laid out on short score the parts for the bonang panerus, bonang barung, peking, saron, demung and slenthem – and also gong ageng, gong suwuk, kempul – for just the opening section because those parts do not conform to that of a traditional form. As in the score, the given bonang and peking parts are essentially just one representation of a possible realization of the balungan melody. I have left the two score sections, rebab and slenthem, to the performer to decide which to follow.

The score comprises the clarinet and accordion parts, and the balungan line, which is

in tension in their own tuning system as the strong beat in Javanese gamelan music, allowing the gamelan instruments to resolve that tension.

Moreover, the accordion plays a gambang-style melody in the dadi part of the ketawang section, and so on.
VI.

Mermecolion

Electroacoustic

Fig. 3.14: Mermecolion

A mermecolion is a somewhat obscure mythical creature. It is a hybrid, combining the body of a giant ant with the head and foreparts of a lion. The combination of such physically contrasting species is the motivation and inspiration behind this piece, in which several soundworlds are combined to create a hybrid soundworld: piano, viola and flutes, Balinese gamelan, and electronics. As the legend goes, the creature inevitably can never survive – the lion's head wishes to eat only meat but the body of the ant can digest only grain – so it starves. This short piece briefly paints an abstract sonic picture of this constant weak state, inner conflict, and demise.

Interestingly, the origin of the creature is traced to an error in translating the Bible from Hebrew to Greek (Allan, 2008), specifically Job 4:11, "the lion perishes for want of prey." A translator attempted to reproduce the effect of the original Hebrew word, an uncommon word for lion, by coining 'myrmecoleon' (mirmecolion), prefixing lion with 'myrmex', the term that the geographer Strabo used to describe Arabian lions. However, 'myrmex' happens to mean 'ant' in Greek – and thus the ant-lion was created.

As pious believers puzzled over the creature, a moral finally emerged: just like the inevitable demise of a mermecolion, so too can the music of this composition evoke pain, inner conflict, and demise.
meremecolion, a "man chronically in two minds must come to naught, being inherently unstable in all his ways," gender-exclusive language aside.

This piece was composed specifically for submission to the Vox Novus "60x60" electroacoustic music composition series, for which it was accepted for the "2009 International Mix" – an hour-long concert experience comprising sixty-second acousmatic pieces from sixty composers from all over the globe.

This piece's electronic sounds were composed using Metasynth, and interwoven with short samples from recordings of pre-existing compositions of mine, Melody for Gamelan Bali (2007), Much Suspicion (2007) for two flutes, and Melody for Gamelan Bali (2007), Tuong, composed using Melastep and Melastep2.

PERFORMANCE HISTORY (as of 12 July 2010)

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Oct 2009</td>
<td>Presented by Vox Novus at 60x60 Project (henceforth, 'Vox Novus') at the Wallstreet Club, Columbus, Ohio, USA</td>
</tr>
<tr>
<td>6 Oct 2009</td>
<td>Presented by Vox Novus at the University of Limerick, Ireland</td>
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<tr>
<td>8 Oct 2009</td>
<td>Presented by Vox Novus at the University of Wisconsin, Madison, Wisconsin</td>
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<tr>
<td>13 Nov 2009</td>
<td>Presented by Vox Novus at Winter Garden Atumn, New York City, New York, USA</td>
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<tr>
<td>13 Nov 2009</td>
<td>Presented by Vox Novus at the Midwinter Festival, Kansas City, Kansas, USA</td>
</tr>
<tr>
<td>14 Dec 2009</td>
<td>Presented by Vox Novus at the University of Limerick, Ireland</td>
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<tr>
<td>13 Nov 2009</td>
<td>Presented by Vox Novus at the Winter Garden Atumn, New York City, New York, USA</td>
</tr>
<tr>
<td>13 Nov 2009</td>
<td>Presented by Vox Novus at the New Music Juke Joint, Mississippi, USA</td>
</tr>
</tbody>
</table>

The work needed a strong final gesture.

The final gong near the end was then added, as I felt it was a natural progression from the main body of the piece.

This piece's electronic sounds were composed using Melastep and Melastep2, and interwoven with short samples from recordings of pre-existing compositions of mine, Melody for Gamelan Bali (2007), Tuong.
21 July 2010 Presented by Vox Novus at California, USA

Scheduled Future Performances

Wisconsin-Green Bay, Wisconsin, USA
29 March 2010 Presented by Vox Novus at Calumet Garden Artium, University of Wisconsin, Green Bay, Wisconsin, USA

University of Oklahoma, USA
25 March 2010 Presented by Vox Novus at Central National Theatre, Oklahoma Panhandle State University, Oklahoma, USA

California, USA
19 March 2010 Presented by Vox Novus at Mission University, Pennsylvania, USA

Cambden, USA
16 March 2010 Presented by Vox Novus at Oxford Brookes University, England

26 Feb 2010 Presented by Vox Novus at Oxford Brookes University, England

University of Illinois, Illinois, USA
12 Jan 2010 Presented by Vox Novus at Westbrook Auditorium, Illinois Wesleyan University, Bloomington, Illinois, USA

California, USA
10 Dec 2009 Presented by Vox Novus at California State University, Long Beach, in California, USA

California, USA
6 Dec 2009 Presented by Vox Novus at Los Angeles Harbor College, Whittier, in California, USA

3 Dec 2009 Presented by Vox Novus at Laguna Art Gallery, San Francisco, in California, USA

20 Nov 2009 Presented by Vox Novus at the University of Cincinnati in Ohio, USA

15 Nov 2009 Presented by Vox Novus at Stimultania Art Gallery in Strasbourg, France

13 Nov 2009 Presented by Vox Novus at Central Michigan University, in Michigan, USA

6 Nov 2009 Presented by Vox Novus at Central Michigan University, in Michigan, USA

29 March 2010 Presented by Vox Novus at California State University, Long Beach, in California, USA

13 Nov 2009 Presented by Vox Novus at Central Michigan University, in Michigan, USA
Podróże is the incredible story of an anonymous man’s journey from Poland to New Zealand as a child in World War II. From being forced into Russia to become an ally and making their way with the Polish Army to Iran and eventually to New Zealand as a ‘Pahiatua child’. 

Firstly, I must acknowledge the fantastic people who generously contributed to my project: Andrzej Nowicki who asked me if I’d be interested in writing a piece for inclusion in a concert series commemorating two important anniversaries for New Zealand’s Polish community – the 65th anniversary of the Pahiatua children’s arrival in Wellington and the 20th anniversary of the end of the Cold War and Polish Independence. 

I was also highly influenced by my friend, Andrzej Nowicki who asked me if I’d be interested in writing a piece for inclusion in a concert series commemorating two important anniversaries for New Zealand’s Polish community – the 65th anniversary of the Pahiatua children’s arrival in Wellington and the 20th anniversary of the end of the Cold War and Polish Independence.

Even before embarking on my Master’s studies I knew that I wished to write a radiophonic-style electroacoustic piece that contained a single person’s narration. This is kind of electroacoustic piece is well established in the New Zealand repertoire – consider John Cousins’ Sleep Exposure (1979) and Tense Test (1986), amongst others, and Jack Body’s Intimate History no.1: Yono (2005) and no.2: sssteve (2008), and, for piano and recorded voice, The Street Where I Live (2007). David Sanders’ Choice Cuts (2002), and Chris Brown’s Philtrum to Laughter’s Flight and from Heaven’s Arm (1986). Amongst others, and Jack Body’s Intimate History no.1: Euphony (1979) and Tense Test (1986). Amongst others.

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Podróże is the incredible story of an anonymous man’s journey from Poland to New Zealand as a child in World War II.
Fraser responded to the plea of the Polish government-in-exile and accepted over 800 refugees, 733 of whom were children. Touched by the story and the strength and persistence of the young refugees, I asked Andrzej if he knew any of the survivors (who are now senior citizens) on a personal level, and he put me in touch with the man whose story I recorded. This man cooperatively recollected, very openly, about his childhood experiences and his journey to New Zealand, for a little over two hours. Thus I had a lot of spoken material to work with, and from this I chose sections for the retelling of his story through my piece. Some time before the piece's premiere, I played the piece to him and he willingly gave me his approval of my selections of his spoken material, and how the electronic sounds caught the mood of the tale.

My friend and composition colleague Carol Shortis, very interested in my project, made a transcript of his entire tale, which in turn inspired her piece *Podróże (2009)* (travels) and her arrangement of *Polskie Kwiaty* (2009). *Podróże* begins with my narrator introducing and singing a few lines from an old Polish folk song, *Polskie Kwiaty* (Polish Flowers), that for many Polish people has come to represent their post-war diaspora, as well as describing the yearning of people “far removed from their roots” (0'12''), reminiscing about their homeland, lamenting their displacement from it. The recording of his singing is reiterated later in the piece from 9'06'', over an electronic soundscape. This occurs in-between his recollection of school life in Russia and his recollection of his family’s struggle for survival – catching sparrows for something to eat – thus placed at a moment where the folk meaning of the song, longing for one’s home, would have been significant to my narrator and his family. A lot of the generated electronic material for this piece was inspired by the melody of the folk song (in an abstract way), but also in a non-abstract way, as my own two arrangements of it appear near the piece’s end (see below).

The intermittent drones persisting throughout the piece signal an allusion to the narrator’s state of limbo and homelessness throughout this period of his life, while other recorded environmental and technological sounds (birds, rain sounds, other sounds, children laughing, the sound of things) reference the experience of being an immigrant in New Zealand.

For instance, bird sounds are heard from 9'27'' as my narrator recalls his parents catching a sparrow for something to eat, though the accompanying bird sounds are of New Zealand birds, foreshadowing my narrator’s arrival in New Zealand and his fascination with New Zealand greenery and wildlife, in an abstract sense.
Sound morphology plays a role in foreshadowing aspects of the narration. For instance, at 6'20'', the narrator mentions the lack of water and not being able to shower, and instead having to bathe "in snow." A dripping water sound accompanies his mention of showers and water, a manipulated, softer water sound accompanies his mention of snow, and then harsher, ice-like sounds follow.

Moderate levels of abstraction between sound sources and the narrative were achieved by the employment of percussion instruments. The snare drum rolls (punctuated by gongs) from 8'10''- 9'25'' and 10'05''- 11'10'' evoke a strong military allusion. These snare drum rolls are anticipatory sonic signals for the forthcoming kendhang drumming 'battle' (11'14''- 12'25''), a metaphorical standoff, representing the release of the Polish prisoners from the camps, to fight on the side of the Russian army against the German army, once the German army invaded Russia.

Similarly, while my narrator talks about his temporary refuge in Iran at 16'30'', we hear the sounds of an Iranian tar (a lute), played by Farhad Bahrami, evoking the musical language of the area.

The multicultural interlude at 18.56'' - 19.10'', which follows from the narrative's joke about Poland, is composed of drum sounds from a Balinese Gamelan (Gong Kebyar), bassoon and accordion together – all instruments with different cultural associations – representing the diverse multicultural makeup of New Zealand’s population.

The melodic interpolation at 17.20'' and 17.53'', signals the welcome to and arrival at Pahiatua of the refugees, evoking the musical language of Aotearoa New Zealand. The French language spoken over my narrator’s recollection of French class at high school in New Zealand (at 18'10''), by adding an extra layer of spoken voice, disorients and confuses, as the listener’s ear is torn between attending to several voices simultaneously, and purposefully having to focus on the narrator’s voice to keep up with the tale. This effect is intended to capture the disorientation, confusion and frustration my narrator must have experienced in trying to sit through classes, in which a new language is being taught through another language that he could not yet comprehend.

The area sounds on trout (in (a)) were played by Frank Barlow, evoking the musical language of New Zealand.

Similarly, while my narrator talks about his temporary refuge in Iran at 16'30'', we hear the sounds of an Iranian tar (a lute), played by Farhad Bahrami, evoking the musical language of the area.

While the sounds of the snare drum rolls are anticipatory sonic signals for the forthcoming kendhang drumming 'battle,' these same drum rolls also evoke a strong military allusion, and additionally, they contribute to the deployment of percussion instruments.

In conclusion, sound morphology plays a role in foreshadowing aspects of the narration. For instance, at 6'20'', the narrator mentions the lack of water and not being able to shower, and instead having to bathe "in snow." A dripping water sound accompanies his mention of showers and water, a manipulated, softer water sound accompanies his mention of snow, and then harsher, ice-like sounds follow.
PERFORMANCE HISTORY (as of 12 July 2010)

06 Nov 2009 Realised (by the composer) at "Podróże – Journeys" at Adam Concert Room, New Zealand School of Music (Kelburn campus), Wellington

07 Nov 2009 Realised (by the composer) at "Podróże – Journeys" at St. Andrew's On The Terrace, Wellington

CD RELEASE

The SMP Ensemble (2010), Podróże – Journeys (New Zealand: Amstore)
Elegy

Piano and Javanese gamelan

In August 2009 I was compelled to create a piece for the memory of a close friend. To avoid sentimentality, I structured the piece's pitch material serially, from a 14-note row based on her name that I created by transferring letters of the alphabet to a pitch at a certain octave: D2, E3, Eb2, E1, E2, E1, A2, Eb3, D3, E1, Eb2, D2, Ab1, A1. My row presents only five different pitches: Ab, A, D, Eb, and E – pitches that create lots of ‘open’ intervals (fourths and fifths) with which I could construct an open, bare soundworld which would ‘shimmer’ in varying ways according to the microtonal tuning of the gamelan. As each piano note is doubled by a gamelan note, the piano part was composed first, and then every piano note doubled by at least one gamelan instrument.

Because of the tuning discrepancies between the Western tuning of a piano, and the tunings of Javanese gamelan, different unison/octet harmonies beat at different rates, at different registers. Exploring this concept, I thus composed the piece to work through different tensions and releases, Javanese gamelan, different microtonal harmonic progressions at different rates, at different register. Because of the tuning discrepancies between the Western tuning of a piano, and the tunings of Javanese gamelan.

In August 2009 I was compelled to create a piece for the memory of a close friend. To avoid sentimentality, I structured the piece's pitch material serially, from a 14-note row based on her name that I created by transferring letters of the alphabet to a pitch at a certain octave: D2, E3, Eb2, E1, E2, E1, A2, Eb3, D3, E1, Eb2, D2, Ab1, A1. My row presents only five different pitches: Ab, A, D, Eb, and E – pitches that create lots of ‘open’ intervals (fourths and fifths) with which I could construct an open, bare soundworld which would ‘shimmer’ in varying ways according to the microtonal tuning of the gamelan. As each piano note is doubled by a gamelan note, the piano part was composed first, and then every piano note doubled by at least one gamelan instrument.

Because of the tuning discrepancies between the Western tuning of a piano, and the tunings of Javanese gamelan, different unison/octet harmonies beat at different rates, at different registers. Exploring this concept, I thus composed the piece to work through different tensions and releases, Javanese gamelan, different microtonal harmonic progressions at different rates, at different register. Because of the tuning discrepancies between the Western tuning of a piano, and the tunings of Javanese gamelan.
The fourth and fifth/sixth times through the row happen simultaneously: the 'fourth' time is realised by the left hand of the piano writing (and is essentially a literal repeat of the first instance of the row, except that 2 and 7 are an octave lower this time), and the 'fifth/sixth/seventh' times through the row are realised by the right hand of the piano writing (which are very sketchy realisations of the row – see below). The fourth time through is doubled an octave higher by gamelan instruments, except for 12 and 14, which are doubled at unison. A unison drone from the gamelan’s slenthem maintains itself, though dying away, from straight after 13, until the piece ends.

From the left hand’s fourth realisation – see bb. 21-22 (3 4 7 8 9 11 14 8 9 10 13 13 8 9 10 13 13), the fifth/sixth/seventh realisations of the row are incomplete, and are as follows (following 1 2 3 4 7 8 9 10 10 13 13 8 9 10 13 13):

<table>
<thead>
<tr>
<th>Number</th>
<th>Note</th>
<th>Register</th>
<th>Octaves</th>
<th>Unison/Doubled</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(D2)</td>
<td>same register</td>
<td>+2</td>
<td>doubled at unison</td>
</tr>
<tr>
<td>2</td>
<td>(E3)</td>
<td>same register</td>
<td>+2</td>
<td>doubled at unison</td>
</tr>
<tr>
<td>3</td>
<td>(Eb2)</td>
<td>same register</td>
<td>+2</td>
<td>doubled at unison</td>
</tr>
<tr>
<td>4</td>
<td>(E1)</td>
<td>same register</td>
<td>omitted</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>(E2)</td>
<td>same register</td>
<td>+2</td>
<td>doubled at unison</td>
</tr>
<tr>
<td>6</td>
<td>(D3)</td>
<td>same register</td>
<td>+2</td>
<td>doubled at unison</td>
</tr>
<tr>
<td>7</td>
<td>(A2)</td>
<td>same register</td>
<td>+4</td>
<td>doubled 1 octave lower</td>
</tr>
<tr>
<td>8</td>
<td>(Eb3)</td>
<td>same register</td>
<td>+2</td>
<td>doubled at unison</td>
</tr>
<tr>
<td>9</td>
<td>(D3)</td>
<td>+4</td>
<td>doubled 1 octave lower</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>(Eb2)</td>
<td>same register</td>
<td>+2</td>
<td>doubled at unison</td>
</tr>
<tr>
<td>11</td>
<td>(D2)</td>
<td>+3</td>
<td>doubled at unison</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>(Eb3)</td>
<td>+3</td>
<td>doubled at unison</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>(D2)</td>
<td>+3</td>
<td>doubled at unison</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>(Ab1)</td>
<td>+3</td>
<td>doubled at unison</td>
<td></td>
</tr>
</tbody>
</table>

The fourth and fifth/sixth times through the row happen simultaneously: the fourth time is doubled an octave higher by gamelan instruments, except for 12 and 14, which are doubled at unison. A unison drone from the gamelan’s slenthem maintains itself, though dying away, from straight after 13, until the piece ends.
All of the above can be followed by inspecting this annotated copy of the score, with the
realisations of the row (1 = first note of row, 2 = second note of row, and so on) annotated in the
piano part, along with omissions, octave transpositions, and so on:
Tabula Rasa is another piece composed for Chinese yangqin player Wang Hui, the other being Melody for Violin and Yangqin. She was very excited when I suggested a yangqin-with-live-electronics piece – she could think of no other such existing composition, and was very enthusiastic about working on it with me.

I am interested in aleatoric music and controlled improvisation. Working with a graphic score material combines our loudspeakers (see score for directions for the live electronics), and audience hears the direct acoustic sounds of the yangqin plus the manipulated electronic underpinnings of the sounds also takes place in real-time. However, the yangqin is not amplified – the finger-picking, the strings, striking the woodblocks with the mallets, knocking the wooden explanation of the yangqin: striking the strings with the instrument’s traditional bamboo mallets, and in a non-conventional manner. Tabula Rasa’s instructions encourage a sonic complex graphic score that instructs performers to play the instrument with all kinds of different materials and in a non-conventional manner. Tabula Rasa's instructions encourage a sonic Aleatoric, physically composed – a resonanting box with strings and other features. Stockhausen invented this approach in *Mikrophonie I* (1964) for tam-tam, in which he composed a structure, physically composed – a resonanting box with strings and other features. Stockhausen conceived of one can compose for it in the former sense, making the piano to be what it is an instrument, but also as it is be played by a performer. Hence, on the instrument, we can either compose for it in the larger, conventional instrumental sense (and with the music to be played by a performer) and in the other, non-conventional sense. (i.e., think of the piano, for instance.) In Tabula Rasa I approached the yangqin, a new instrument for me, as an entirely different instrument.

I am enthusiastic about working on it with me.

Tabula Rasa is another piece composed for Chinese yangqin player Wang Hui, the other being Melody for Violin and Yangqin. She was very excited when I suggested a yangqin-with-live-electronics piece – she could think of no other such existing composition, and was very enthusiastic about working on it with me.
Primes comprises three (a prime number) formal sections – Grave (from \( b. 1 \)), Fast (from \( b. 32 \)), and Mini cadenza (from \( b. 48 \)). The work was composed especially for Andrzej Nowicki, who was very excited about my idea of a mathematically influenced piece.

The Grave section comprises 59 (a prime number) notes in total. The pitches were chosen from the clarinet’s lowest register, other than a single “higher” E-flat in bar 15 (as a marker half-way through the section \( b. 31 \), a prime number), which contains a short phrase with articulations I chose (a slurred figure followed by two legato phrases, followed by a short on Legato notes, until the last bar of the section \( b. 31 \), a prime number), which contains a short articulation is specified other than occasional Legato directions and Vibriando widening Vibriando.

The length of each note and its dynamic were generated by chance operations (though much of what the chance operations generated was rejected – the section was ultimately through-composed using what came up that I liked and felt had interesting shapes, voice-leading and juxtaposition). With the exception of grace notes, pitches are not slurred and very little articulation is specified other than occasional Legato directions and Vibriando widening Vibriando.

Fig. 3.16: Excerpts from \( X \).

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The Grave section comprises 59 (a prime number) notes in total. The pitches were chosen from the clarinet’s lowest register, other than a single “higher” E-flat in bar 15 (as a marker half-way through the section – to the ninth note of the section \( b. 31 \), a prime number), which contains a short phrase with articulations I chose (a slurred figure followed by two legato phrases, followed by a short on Legato notes, until the last bar of the section \( b. 31 \), a prime number), which contains a short articulation is specified other than occasional Legato directions and Vibriando widening Vibriando.

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---

The work was composed especially for Andrzej Nowicki, who was very excited about my idea of a mathematically influenced piece.
b. 31

Fig. 3.17: Excerpt from *Primes*.

Fast comprises just two (a prime number) phrases, each containing seven (a prime number) pitches. Only the pitches are specified – rhythms, durations, dynamics, articulations, and expression, and so on, are left to the performer’s discretion and may be realised differently in every performance of the piece. The section, like an “after-thought”, wraps up the piece in expression, and so on, are left to the performer’s discretion and may be realised differently in every performance of the piece. The section, like an “after-thought”, wraps up the piece in expression, and so on, are left to the performer’s discretion and may be realised differently in every performance of the piece.

After 97 notes, from b. 46 into b. 47 (a prime number), the final phrase from Grave is repeated, a little slower than the 120 M.M. of Fast (though much faster than the 60 M.M. of Grave). A little slower than the 120 M.M. of Fast (though much faster than the 60 M.M. of Grave), it re-emphasises that short phrase, and inserts another degree of symmetry into the work.

The final section, Mini cadenza, from the preceding body of the piece: a direct juxtaposition to the long, smooth, melancholic, overall rather material of Grave. A direct juxtaposition to the long, smooth, melancholic, overall rather material of Grave. A direct juxtaposition to the long, smooth, melancholic, overall rather material of Grave.

Mini cadenza comprises just two (a prime number) phrases, each containing seven (a prime number) pitches. Only the pitches are specified – rhythms, durations, dynamics, articulations, and expression, and so on, are left to the performer’s discretion and may be realised differently in every performance of the piece.
The piece was composed by Lindberg especially for Kriiku. of Kriiku, who could perform them differently at different performances. Lindberg's Clarinet Concerto (2002), performed at the clarinet cadenzas up to the discretion of achievement. Virtuoso Kari Kriiku's performance with the New Zealand Symphony Orchestra of Magnus
After Clive Bell was composed in response to the ‘Momentary Pleasures’ call-for-works, for the 2010 ISCM (International Society for Contemporary Music) in Sydney, Australia. To conform with the requirements for submission, this piece was composed entirely in a single day. My work was inspired by Clive Bell’s novel An (1914), whose philosophy I reject in favour of a pluralist approach (see Appendix III).

After Clive Bell mixes serial and aleatoric techniques. The length of each gesture is determined by the performer. Although certain pitches do recur and dominate, much of the musical language involves chromatic saturation and contrasting close-position dissonant chords with open-position dissonant chords – consider the very opening:

Fig. 3.19: Excerpt from After Clive Bell

Rather than moving towards a climax, the work moves towards a musically frozen, repetitive, cyclic ending, which de-emphasises conventional ideas of Western tonality and form. The cyclic structure encourages the performer to stay within their own individual and unique interpretation of the piece.

Fig. 3.20: Excerpt from After Clive Bell

Pluralist approach (see Appendix III).

Jenkinsian dissonant chords – consider the very opening:

After Clive Bell mixes serial and aleatoric techniques. The length of each gesture is determined by the performer. Although certain pitches do recur and dominate, much of the musical language involves chromatic saturation and contrasting close-position dissonant chords with open-position dissonant chords – consider the very opening:

Fig. 3.19: Excerpt from After Clive Bell

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Fig. 3.20: Excerpt from After Clive Bell

Pluralist approach (see Appendix III).
PERFORMANCE HISTORY (as of 12 July 2010)

27 June 2010

Sam Jury (piano) at Adam Concert Room, New Zealand School of Music

(Kelburn campus), Wellington
Outside my front door is a 'soundscape' piece and a work for fixed media through the lens of acoustic ecology (or ecoacoustics), a mixed discipline concerned with the "interrelationship between sound, nature, and society." My other compositions involve cross-culturalism and transcription, improvisation, and an 'aesthetics of imperfection' (see Hamilton, 2007). For me, acoustic ecology was the next obvious approach for broadening my compositional palate and for producing a work comprising recorded sounds (i.e., a work of musique concrète) in which I construct a listening experience based on a recorded natural reality that I have subtly embellished.

Musique concrète composers, following the tradition established by Pierre Schaeffer and others in Paris in 1948, are concerned with assembling pieces of music exclusively from recorded sounds. This contrasts with the Elektronische Musik tradition established shortly after in Cologne by Herbert Eimert, Werner Meyer-Eppler and others. Famously, Karlheinz Stockhausen was amongst the first to marry the two schools with his Gesang der Jünglinge (1956) (see Simms, 1986), combining pre-recorded voice with electronic pulses and tones.

The embellished natural reality of Outside my front door requires a carefully considered playback volume for any performance or listening. It is not a loud acousmatic piece; it is one in which natural and man-made sounds could be mistaken as occurring just outside the window. To this end, the piece is mixed at a lower volume level than usual, with which it can be appreciated as occurring right outside the door.

Acoustic ecology's origins can be traced to Canadian composer R. Murray Schafer, who was interested in how we "hear the acoustic environment as a musical composition." Philosopher Allen Carlson (1979 & 2005) argues for a theory of aesthetics of natural environments, and natural soundscapes fall under this category. Thanks to Carlson's work, it is now widely accepted in the philosophical literature that it is possible to appreciate natural environments as artworks.


1 Consider Luc Ferrari's important acousmatic work Presque Rien no. 1 "Le lever du Jour au Bord de la Mer." (1970), which is a 21-minute audio recording of a seaside wharf at sunrise.


Moreover, the composer's contribution to a soundscape piece is not trivial; Hamilton identifies some of these compositional decisions, "when to start recording, the kind of microphone, its location and direction, and so on." In order to make these compositional decisions significant, I limited the duration of the work to one minute - making it possible for me to submit it to the Vox Novus "60x60," a “60x60” electroacoustic music composition series, for which it was accepted for the “2010 Scarlet Mix” – an hour-long concert comprising sixty-second pieces from sixty composers from all over the globe. Ultimately, the composer is a significant force in shaping the soundscape, and the choices they make during the creative process of the soundscape are crucial. The decision-making process influences the composer's expression of the sounds, and the way in which the piece is realized. If this is not the case, and the composer is assembling a soundscape piece with sampled recordings, the composer's non-experience of the acoustic ecology will undoubtedly lead to different value choices being made during the creative process of composition. This decision-making would be more analogous to standard musique concrète composition, rather than the present "through the lens of acoustic ecology" approach. It seems to me that there is no problem in creating a soundscape piece with manipulated sounds in soundscape ecology, regardless of whether or not non-natural sounds are included, as long as the sounds are manipulated in a way that reflects the ecological processes, whether or not they are derived from natural acoustic ecologies. However, the assumption that the composer is also the recordist, when it comes to creating a soundscape piece with real sounds, is another matter. In that case, the composer's expression of the sounds will be influenced by their own real-time experience of the soundscape, their own aesthetic preferences, and their own musical vision. This is the case in standard musique concrète composition, where the composer is the sole creator of the soundscape, and the choice of sounds, their placement, and the order in which they are played are all determined by the composer. In contrast, in soundscape ecology, the sounds are sourced from the natural acoustic ecology, and the composer's role is to manipulate and transform these sounds in order to create a soundscape that reflects the ecological processes. Moreover, the composer's contribution to a soundscape piece is not trivial; Hamilton identifies some of these compositional decisions, "when to start recording, the kind of microphone, its location and direction, and so on." In order to make these compositional decisions significant, I limited the duration of the work to one minute, making it possible for me to submit it to the Vox Novus "60x60," a “60x60” electroacoustic music composition series, for which it was accepted for the “2010 Scarlet Mix” – an hour-long concert comprising sixty-second pieces from sixty composers from all over the globe.
natural and technological sounds together, as music; just as I present cross-cultural music, an approach in which the sounds of one other are presented as music. In this piece, I present electronic manipulation of recorded sound in the piece, which seems to me to undermine the project of the acoustic ecologist, being not solely concerned with purely natural acoustic ecosystems, but also with how human social and technological life interrupts natural acoustic ecosystems. A similar line is defended by soundscape composer Francisco López (1998). Furthermore, it is important to remember that the original impetus for soundscape awareness came from composers and musicians. We are the ones that make listening and working with sound and music our profession. It is therefore a logical extension that we would also be concerned about the ecological health of our acoustic environment and all living beings within … The question is, how can soundscape composition enhance such environmental listening awareness? What is its role in inspiring ideas about balanced soundscapes and acoustic ecology? How can the soundscape composer raise listening awareness in an already overloaded sound world with yet another sound piece? … And how can we convince other ecologists that the pollution of our soundscape is as much of an environmental issue as the pollution of water and air – that indeed, it is the "voice" which makes the world's environmental problems audible to all those who care to listen? 6

My own approach for Outside my front door involves contrasting the natural sounds of where I live with any man-made sounds invading that natural acoustic ecology. As a composer and sound-lover, I regret the loss of diversity in the natural acoustic ecology, as an animal-lover or plant-lover regrets the loss of biodiversity in the natural habitats. Many of us experience these ecological blessings, and this opportunity to experience "natural" sounds decreases with each generation due to the destruction of natural habitats. Even as "we live with any man-made sounds invading the natural acoustic ecology", even as "those who care to listen" …

... How can the soundscape composer raise listening awareness? What is its role in inspiring ideas about balanced soundscapes and acoustic ecology? How can we convince other ecologists that the pollution of our soundscape is as much an environmental issue as the pollution of water and air? Is there a soundscape composer who uses recorded fragments of natural and man-made ecosystems in their compositions? We are the ones that make listening and working with soundscape compositions audible to all living beings within … The question is, how can we convince other ecologists that the pollution of our soundscape is as much of an environmental issue as the pollution of water and air – that indeed, it is the "voice" which makes the world's environmental problems audible to all those who care to listen? 6

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Although this piece does not draw upon any cross-cultural musical material, it is indicative of López's approach. 7

My own approach for Outside my front door involves contrasting the natural sounds of where I live with any man-made sounds invading that natural acoustic ecology. As a composer and sound-lover, I regret the loss of diversity in the natural acoustic ecology, as an animal-lover or plant-lover regrets the loss of biodiversity in the natural habitats. Many of us experience these ecological blessings, and this opportunity to experience "natural" sounds decreases with each generation due to the destruction of natural habitats. Even as "we live with any man-made sounds invading the natural acoustic ecology", even as "those who care to listen" …

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instruments, and musical materials together, in other works, in an attempt to 'open the audiences' ears' to exciting new musical possibilities. 8

PERFORMANCE HISTORY (as of 12 July 2010)

1 June 2010  Presented by Vox Novus at ICMC at the Electronic Music Foundation, New York, USA
2 June 2010  Presented by Vox Novus at ICMC at the Electronic Music Foundation, New York, USA
3 June 2010  Presented by Vox Novus at ICMC at Wang Center Chapel, Stony Brook University, New York, USA
4 June 2010  Presented by Vox Novus at ICMC at Wang Center Chapel, Stony Brook University, New York, USA
5 June 2010  Presented by Vox Novus at ICMC at Wang Center Chapel, Stony Brook University, New York, USA
6 June 2010  Presented by Vox Novus at ICMC at Wang Center Chapel, Stony Brook University, New York, USA
7 June 2010  Presented by Vox Novus at ICMC at Wang Center Chapel, Stony Brook University, New York, USA
8 June 2010  Presented by Vox Novus at ICMC at Wang Center Chapel, Stony Brook University, New York, USA
9 June 2010  Presented by Vox Novus at ICMC at Wang Center Chapel, Stony Brook University, New York, USA
10 June 2010  Presented by Vox Novus at ICMC at Wang Center Chapel, Stony Brook University, New York, USA
11 June 2010  Presented by Vox Novus at ICMC at Wang Center Chapel, Stony Brook University, New York, USA
12 June 2010  Presented by Vox Novus at ICMC at Wang Center Chapel, Stony Brook University, New York, USA
13 June 2010  Presented by Vox Novus at ICMC at Wang Center Chapel, Stony Brook University, New York, USA
14 June 2010  Presented by Vox Novus at ICMC at Wang Center Chapel, Stony Brook University, New York, USA

SCHEDULED FUTURE PERFORMANCES

Aug 2010
14 July 2010  Presented by Vox Novus at the Adam Concert Room, New Zealand School of Music (Kelburn campus), Wellington, New Zealand
31 July 2010  Presented by SMP Ensemble at the Adam Concert Room, New Zealand School of Music (Kelburn campus), Wellington, New Zealand
4 Aug 2010  Presented by Vox Novus at Ton-Art-Expo, Margit Haupt, Karlsruhe, Germany

8 I am reminded of two of John Cage's famous quips, "Wherever we are, what we hear is mostly noise. Whenever we listen to it, it's fascinating. And whenever we ignore it, it disturbs us." When we listen to it, we find it fascinating, and "Which is more musical, a truck passing by a factory or a truck passing by a music school?" (Cage quoted in Morris, 1967, p. 472). Part of a composer's mission should be to further develop the role of music both as an artform and in the artworld. Part of this innovation is challenging what it is for something to count as music.
in Berlin, Germany

Presented by Vox Novus at the International Sound Art Festival Berlin

28 Aug 2010
Music composition is a creative process shaped by the traditions, values, intuitions and beliefs of the composer. Cross-cultural composition is a particular practice that is now widely acknowledged and engaged in by many contemporary composers. A cross-cultural composition practice offers new possibilities that composing strictly within the Western art tradition does not allow. These possibilities include access to new timbres, tuning systems, non-Western conceptual and structural frameworks, and the utilisation of non-Western musical instruments. The utilisation of non-Western music aesthetics and consideration of the musical aesthetics of musical traditions outside the Western tradition is a challenging and enriching path to the future for composers of today.

This thesis has examined topics relevant to cross-cultural musical creation such as participant observation, tuning systems, notational systems, composer/performer collaboration, aesthetics, and issues of cultural appropriation. I have attempted to show due respect and sensitivity to other musical traditions throughout my creative endeavours.

In the words of Philip Glass, “Traditions are imploding and exploding everywhere — everything is coming together, for better or for worse, and we can no longer pretend we’re all living in different worlds. Because we’re on different continents, and in different bodies for better or worse, and we can no longer pretend we’re all living in different worlds.”

Cross-cultural composition is a creative process shaped by the traditions, values, intuitions and beliefs of the composer. A cross-cultural composition practice acknowledges the increasing global intersection of musical traditions and offers new possibilities that composing strictly within the Western art tradition does not allow. These possibilities include access to new timbres, tuning systems, non-Western conceptual and structural frameworks, and the utilisation of non-Western musical instruments. The utilisation of non-Western music aesthetics and consideration of the musical aesthetics of musical traditions outside the Western tradition is a challenging and enriching path to the future for composers of today.
Compositional works such as Suite for Percussion (1942) and Double Music (1941) - John and Louise - with Harrison's early mature works were percussion pieces utilizing found objects and instruments such as Scrap metal, such as Suite for Percussion (1942) and Double Music (1941 - John and Louise). The music of Lou Harrison, almost impossible to consider the topic of cross-cultural composition without acknowledging instruments such as Scrap metal, such as Suite for Percussion (1942) and Double Music (1941 - John and Louise). The music of Lou Harrison, almost impossible to consider the topic of cross-cultural composition without acknowledging instruments such as Scrap metal, such as Suite for Percussion (1942) and Double Music (1941 - John and Louise). The music of Lou Harrison, almost impossible to consider the topic of cross-cultural composition without acknowledging instruments such as Scrap metal, such as Suite for Percussion (1942) and Double Music (1941 - John and Louise).

APPENDIX I

APPENDICES
Harrison composed rather than performing traditional Japanese ones (Perlman, 1994). Harrison's compositions were inspired by Indonesian gamelan, but they were used as a vehicle for new instruments, often made of recycled materials. His interest in percussion and Asian music culminated in the construction of an 'American Gamelan' with partner Bill Chafe, which was used for new compositions rather than traditional Javanese ones. Harrison's interest in percussion and Asian music also led him to learn Chinese and Korean instruments, and he performed with ensembles that included Chinese and Korean instruments such as the sheng (Chinese mouth organ), guzheng (Chinese zither), kayageum (Korean zither), and Western instruments like psalteries and tuned bowls.

Fig. 1.2: Lou Harrison: from “La Familia de la Regia Korto” from Pacifica Rondo (1963), published in von Canzian (1995)
Composers often composed music to celebrate the traditions of another culture, as in the case of Lou Harrison who composed for American gamelan.

Harrison studied Javanese gamelan under Pak Cokro 1 in California, and, initially at Cokro's invitation, composed many traditional-style gamelan pieces (using conventional forms and modes) for Javanese gamelan, such as Gending Samuel (1976), Gending Pak Cokro (1976), Bubaran Robert (1976 – revised, with added piccolo trumpet solo, in 1981), Lancaran Daniel (1976), Lagu Sociseknum (1976), Gending Paul (1977), Gending Jody (1977), Gending Alexander (1981), and many others (see Miller & Lieberman, 2004).

Superficially, this looks like the notation of a standard Javanese gamelan piece. The colotomic structure is indicated above the notation (T = ketuk, N = kenong, P = kempul, and the gong ageng note is circled). However, there are clues that the piece is a work by a Western composer: the octave leap (from low 6 to 6) in the final gatra is alien in traditional Javanese gamelan music, and Harrison asks the bonang player to ignore the low 6 in extrapolating the bonang part.

Nevertheless, this looks like the notation of a standard Javanese gamelan piece. The colotomic structure is indicated above the notation (T = ketuk, N = kenong, P = kempul, and the gong ageng note is circled).
Likewise, the first rest of the second gatra is filled in with a 5, the previous note, so that the pattern 5151 is generated. The rest after the 5 in the second gatra, however, Harrison specifies to fill in with a 1, rather than a 5, creating a palindrome pattern for that gatra: 5151 1515. This shows that Harrison was interested in adopting authentic traditional performance practice, but also developing it so that it would work with the vision that he had for the composition.

Harrison’s Bubaran Robert also looks like a conventional Javanese gamelan piece. The balungan contains muted struck tones, though this technique does occur in Javanese music. The colotomic structure is indicated. Again, however, there are clues that the work is composed by a Western composer:

The composition, performance practice, and also developing it so that it would work with the vision that he had for the composition is indicated. Again, however, there are clues that the work is composed by a Western composer.
The above excerpt contains the extrapolation of the first six gatra for bonang and bonang panerus, above the balungan line. The fifth gatra is the only one out of the first six gatra of the piece that comprises traditional style mipil.

In the first gatra, instead of filling in the rest (the muted struck tones) with a 6, the previous note, and switching to gembyangan, Harrison instructs the bonang to play an ascending four note scale, 2356 – uncharacteristic for bonang, but ultimately the melody that Harrison desired (Diamond, 1987). The third gatra is a transposition of the first, one tone lower, so its rest is filled in similarly, with 1235. The second and fourth gatra utilise a version of mipil that Harrison has constructed: instead of 3535 over balungan 3 5, as in the fourth gatra, the bonang plays 3565, replacing the first note of the pattern with the adjacent higher note of the pattern, creating a generally up-then-down stepwise melodic contour:

Figure I.8: Melodic contour of bonang part in Harrison's Bubaran Robert

This style of decoration is again used in the second half of the fourth gatra – 2353 over 2 3 – and the second gatra is a transposition of the fourth, up one tone, so is used again there also. The sixth gatra employs gembyangan style playing as, unlike the other occasions, the rest is filled in with the previous note, rather than remaining a quarter note of the previous playing. The sixth gatra employs gembyangan style playing as, unlike the other occasions, the rest is filled in with the previous note, rather than remaining a quarter note of the previous playing. The sixth gatra employs gembyangan style playing as, unlike the other occasions, the rest is filled in with the previous note, rather than remaining a quarter note of the previous playing. The second gatra is a transposition of the fourth, up one tone, so is used again there also. The sixth gatra employs gembyangan style playing as, unlike the other occasions, the rest is filled in with the previous note, rather than remaining a quarter note of the previous playing. The second gatra is a transposition of the fourth, up one tone, so is used again there also.

The above excerpt contains the extrapolation of the first six gatra for bonang and bonang panerus, above the balungan line. The fifth gatra is the only one out of the first six gatra of the piece that comprises traditional style mipil. The sixth gatra employs gembyangan style playing as, unlike the other occasions, the rest is filled in with the previous note, rather than remaining a quarter note of the previous playing. The second gatra is a transposition of the fourth, up one tone, so is used again there also.
and preparing a performance. Thus his alterations to the embellishing parts are justified, as


7 Harrison displays an understanding of Javanese Gamelan pathet (mode) conventions – the first section of Philemon and Baukis (1987) for violin and Javanese Gamelan, for example, ends with the typical Slendro manyura cadence 3 2 1 6 (Alves, 2001).

8 Melodicles defined as “motivic neume-like arrangements which could be diatonic, chromatic, transposed, inverted, used in retrograde, or joined to form a mode” by von Gunden (1995), p.7.

9 Michael Norris, pers. comm., 2010.
Harrison also composed works that combine Indonesian gamelan with other instruments – in pieces such as *Main Bersama-sama* (1978) for Sundanese gamelan and horn, *Threnody for Carlos Chávez* (1978) for Sundanese gamelan and viola, *Double Concerto for Violin, Cello, and Gamelan* (1982) for Javanese gamelan, violin and cello, *Gending in Honor of Aphrodite* (1986) for Javanese gamelan, choir, and harp, *A Cornish Lancaran* (1986) for Javanese gamelan and soprano saxophone, *Philemon and Baukus* (1987) for violin and Javanese gamelan, and *Concerto for Piano with Javanese Gamelan* (1987), amongst others. In these works, it is expected that the Western instruments be tuned to match the pitches of the gamelan as closely as possible.

In traditional Javanese gamelan music, the fourth note of a *gatra* is considered the strong beat, and the *bonang* and other elaborating instruments anticipate the strong pitch by playing patterns that lead up to an emphasis of it throughout the *gatra*. Here, Harrison switches this Indonesian notion for a Western one, as the strong beat (first beat of the bar) is continued throughout the piece, which plays a pedal melody with *slendro* in a question-answer style. In this piece, the *bonang* part does not anticipate the main pitches, but continues the main pitches in an answered cadence style.

In traditional Javanese gamelan music, the fourth note of a *gatra* is considered the strong beat. Here, Harrison switches this Indonesian notion for a Western one, as the strong beat (first beat of the bar) is continued throughout the piece, which plays a pedal melody with *slendro* in a question-answer style. In this piece, the *bonang* part does not anticipate the main pitches, but continues the main pitches in an answered cadence style.

*Fig. I.10: Lou Harrison (b. 1927): Main Bersama-sama (1978), published by Hermes Press, USA (1989)

Harrison has carefully constructed the piano solo so that the gamelan musicians can play along with the piano. The solo melody is not atonal or dissonant, but rather follows traditional gamelan structures. The harmony is Western, with clear Western harmonic structures. Spiller (2009) observes that Harrison’s "buka" (introduction) is given to be played by the bonang, and the "balungan" and gong notes' cipher notation is then given above the piano part. The piano is playing a melody two octaves apart (reminiscent of the gambang) which essentially decorates the pitches of the balungan as the pitches of the gamelan are given as a counterpoint.

In the above extract, the piano (introduction) is given to be played by the bonang, and the other instruments are to accompany the piano solo with clear Western harmonic structures.

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**Figure I.11: Lou Harrison (first half of first page, third movement): Concerto for Piano with Javanese Gamelan (1987)**

Published by Hermes Beard Press, USA (1990). P. 1 (1)
Harrison has thus employed at least two different approaches to composing for gamelan and Western instruments: from a Western-style perspective (balungan as melody, front-weighted harmonic schema), and from a Javansese-style (balungan as skeletal melodic framework, end-weighted melodic schema). 11

Harrison also composed much music for Western instruments inspired by gamelan – for instance, *Suite for Violin, Piano and Small Orchestra* (1951), *Concerto in Slendro* (1961), and *Elegy, To the Memory of Calvin Simmons* (1982) evoke the sounds, scales and textures of Javanese gamelan. For instance, *Concerto in Slendro* brings together gongs, found percussion, tackpianos (pianos with thumb-tacks pressed into the hammers for a more metallic sound) and celesta, with a violin solo over the top – an interesting precursor to Harrison’s American gamelan compositions.

In my own pieces for gamelan and Western instruments in traditional Javanese style, *Ketawang Anggun*, *Ladrang Santai*, and *Gendhing Tarikan* I employ the latter approach (the kind of style of Harrison’s *Concerto for Piano with Javanese Gamelan*), and in *Gendhing Tarikan* I employ the former – as the balungan strongly defines the melody of the piece, the rhythmic implications of the piece, the *pathet*, and so on. However, the Western solos still work within an anticipatory schema, emphasizing important *balungan* pitches:

![Diagram](image)

In the above excerpt, the accordion plays the G# (pelog 4) just before the *balungan* (second voice of short score) plays the D (pelog 1) on the first beat of the bar before, sounding simultaneously with the *balungan*. The *balungan* strongly defines the melody of the piece, the rhythmic implications of the piece, the *pathet*, and so on. However, the Western solos still work within an anticipatory schema, emphasizing important *balungan* pitches:

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In the above excerpt, the accordion plays the G# (pelog 4) just before the *balungan* (second voice of short score) plays the D (pelog 1) on the first beat of the bar before, sounding simultaneously with the *balungan*. The *balungan* strongly defines the melody of the piece, the rhythmic implications of the piece, the *pathet*, and so on. However, the Western solos still work within an anticipatory schema, emphasizing important *balungan* pitches:

![Diagram](image)
Fig. 1.13: Lou Harrison (bb. 32-37): Concerto in Slendro (1961), published by C. F. Peters Corporation, USA (1978) p. 7

Here, the violin solo plays a melody that elaborates and ornaments the celesta part, in the same manner as the interaction of the rebab part with the gendér in traditional Javanese gamelan:

USA (1978) p. 7

Fig. 1.13: Lou Harrison (first half of first page): Concerto in Slendro (1961), published by C. F. Peters Corporation.
Harrison's Elegy, To the Memory of Calvin Simmons for large mixed chamber ensemble, incorporates gamelan techniques in the instrument part-writing:

Fig. 1.15: Alves' abstraction of Lou Harrison's Elegy, To the Memory of Calvin Simmons (1982), bb. 17-19, published in Alves (2001) p. 49

The reduction above shows a *mipil* style technique – the violin (and cello two octaves lower) perform what one could consider a *balungan*, and the harp and viola together perform in a conventional *bonang* style.12

Harrison's music has left an unprecedented mark in the domain of cross-cultural composition. His music remains influential to many composers who synthesise music-cultures in their own works. The significance of Harrison's music and musical thinking has become even more pertinent since his death, both with the popularity of world and fusion popular music, and contemporary *gamelan* (a world music instrument). The *gamelan* style is an example of a world musician, one who synthesises qualities from various cultures. Harrison's music has left an unprecedented mark in the domain of cross-cultural composition.

12 This is very similar to my appropriation of gamelan techniques (via prescriptive transcription) on Western instruments in my piece *Wigena*:

Fig. 1.16: Excerpt from *Wigena*, string quartet part only

Here, the viola performs the *balungan* of traditional Javanese piece *ketawang pelog nem*, while the cello plays what the *bonang* might play in a traditional performance of the piece and violin plays what the *peking* and *bonang panerus* would play.

This appendix provides an exposition of the developments in Western art music that lead up to the explosion of cross-cultural composition, "the most remarkable development in 20th-century music,"[14] outlining the development of the context in which my own cross-cultural compositions – which use non-Western instruments, prescriptive transcription of non-Western material, and material heavily influenced by and/or based on non-Western music – are set.

In Western music there is a tradition of exoticism and influence of folk traditions. Many prominent Western art music composers incorporated folk sounds into larger scale pieces – often employing the Arab Hijaz mode (augmented second between second and third degrees of the scale) over an assymetrical rhythm grouped 3+3+2 (Locke, 1991):


For example, Beethoven's Variations on 'Hymnus op. 127' (1825), Brahms' 2 Hungarian Dances (1869), and in Saint-Saëns' Samson et Dalila (1876) the composer evokes the exotic sounds of the Middle East by employing the Arab Hijaz mode (augmented second between second and third degrees of the scale) over an assymetrical rhythm grouped 3+3+2 (Locke, 1991):
These early composers made use of known folk and non-Western music to develop their own musical language in their compositional output, generally without directly studying or researching that traditional music. The serious study of traditional musics by composers occurred much later. While some of these composers no doubt were genuinely inspired by folk music, the extensive study of traditional musics by composers resulted in their compositional output generally without directly studying or incorporating folk material.

Unlike almost all other composers before them, Bartók and Kodály engaged in a rigorous study of the folk music that also appeared in their music. The engagement of these two composers in this early form of ethnomusicology was crucial to the development of cross-cultural composition.

Unlike almost all other composers before them, Bartók and Kodály engaged in a rigorous study of folk music. While some of these composers no doubt were genuinely inspired by folk music, the extensive study of traditional musics by composers resulted in their compositional output generally without directly studying or incorporating folk material.

Bartók's interest in European folk music was famously sparked in 1904 when he overheard Lidi Dósa, a Hungarian woman who was a servant at the house he was staying at in Slovakia at the time, singing a simple folk tune (Chalmers, 2008). Captivated, Bartók asked her to sing it again; he memorized the tune and in 1905 published an arrangement of it, "Piros alma" (Red apple) in Hungarian magazine *Magyar Lant* (Schneider, 2006). After this, Bartók and friend Kodály began collecting, transcribing, and arranging folk music from Transylvania, Hungary, Romania, Bulgaria, and many other places (Sevcen, 1993). Kodály completed a PhD in 1906 analysing the strophic forms of the collected folk vocal music from Hungary, and later chose one of these tunes for his *Peacock Variations* (1939). Further, Bartók and Kodály

These rhythmic devices “dominate the style of his early piano works, including his collection of Hungarian Peasant Songs (1920) and his numerous folk arrangements such as in his Improvisations on Hungarian Peasant Songs (1928).”

For Children, and the later Fifth String Quartet (1934), the Music for strings, percussion, and celesta (1936), and the six Bulgarian Dances from Mikrokosmos.

Furthermore, through his fieldwork, Bartók was exposed to microtonal and microtonality of the piece:

C-sharp minor played by the right hand, C Phrygian played by the left hand.

Microtonal music was espoused by Czech composer Alois Hába, influenced by Czech composer Alois Hába, influenced by Ferruccio Busoni's essay "Sketch of a New Ethic of Music" (1907) (1962) in which alternative divisions of the octave are advocated. From 1920, Hába composed in quartertones, third-, sixth-, and another one for the left hand. Melodies are presented alternately, with the melody of one hand and another one for the left hand. One key signature for the right hand, and another one for the left hand. Piano works such as the first of his Fourteen Bagatelles (1908) employ microtonality. One key signature for the right hand. Piano works such as the first of his Fourteen Bagatelles (1908) employ microtonality. From 1920, Hába composed in quartertones, third-, sixth-, and another one for the left hand. Piano works such as the first of his Fourteen Bagatelles (1908) employ microtonality. One key signature for the right hand, and another one for the left hand. 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and even twelfth tones – creating an octave comprising seventy-two micro-steps. Hába's research into Moravian folk music informed his employment of microtones in his compositions – “He found, as Bartók and Kodály had done in the Balkans, that there are divergences from the intervals of the seven-note scale in folk-song which are not to be dismissed as bad intonation.” 18 Hába felt that his identification of microtones in Moravian folk music justified his use of them in his own compositions (McCredie, 2002). In fact, the division of notes ‘equally’ is just one approach – indeed, all the advantages of equal temperament notwithstanding, why discount another approach if both are still capable of successful musical expression?

Stravinsky, during his early period, was influenced by folk music and had possession of Anton Juszkiewicz’s published collection of 1,785 folk tunes (van den Toorn, 1987), when he used microtones in his own compositions (McCredie, 2002). In fact, the division of notes equally is just one approach – indeed, all the advantages of equal temperament notwithstanding, why discount another approach if both are still capable of successful musical expression? Hába felt that his identification of microtones in Moravian folk music justified his use of them in his own compositions (McCredie, 2002). In fact, the division of notes equally is just one approach – indeed, all the advantages of equal temperament notwithstanding, why discount another approach if both are still capable of successful musical expression? Hába felt that his identification of microtones in Moravian folk music justified his use of them in his own compositions (McCredie, 2002). In fact, the division of notes equally is just one approach – indeed, all the advantages of equal temperament notwithstanding, why discount another approach if both are still capable of successful musical expression?
Example 3

Furthermore, his raw, driving, unpredictable, punchy rhythms in the Les Augures Primaire movement evoke the sounds of folk music – inspired by, but not derived from, folk material.

Fig. II.5: Igor Stravinsky: The Rite of Spring (1913), published in van den Toorn (1987), pp. 11-12
American minimalist composers La Monte Young, Terry Riley, Steve Reich, and Philip Glass developed major musical interests in non-Western musics (Schwarz, 2008). Glass worked with iconic sitar virtuoso Ravi Shankar on a film score for cult classic Chappaqua (1966-7) and Glass’s String Quartet (1966), amongst other pieces, focused on the Indian treatment of rhythms, "in terms of recasting cycles of tones, of rhythmic pulses added and subtracted.

Reich has always had a special interest in percussion and as well as expressing an interest in

in his epic composition Drumming (1971), lasting over eighty minutes: 

Alhoy, in Ghana, West Africa (Ross, 2009). His particular observation here culminated

published by Boosey & Hawkes, UK (1967) p. 10

Fig. II.6: Igor Stravinsky (first half of first page): Les Augures Printaniers movement from The Rite of Spring (1913)
Famously, twelve-tone theory pioneer Arnold Schoenberg has opposed the influence of folk music. Although not all traditional musical material may suit an overly contrapuntal treatment (Michael Norris, pers. comm., 2010), it seems Schoenberg and his followers were all too eager to assume that 'primitive' music is incapable of fine-grained musical thinking, which is not true and has been available to Western music scholars since Bartók and Kodály began collecting folk music — and indeed, before that by world music enthusiasts such as the anthropologist Alexander John Ellis (see Ellis, 1885). Furthermore, the classed musical systems of Indonesia, China, India, and the Middle East (to name but a few) can rival Western music, and have been available to Western music scholars since the Renaissance, or even earlier. Schönberg and his followers were all too eager to assume that 'primitive' music is incapable of fine-grained musical thinking, which is not true and has been available to Western music scholars since Bartók and Kodály began collecting folk music — and indeed, before that by world music enthusiasts such as the mathematician Alexander John Ellis (see Ellis, 1885). Furthermore, the classed musical systems of Indonesia, China, India, and the Middle East (to name but a few) can rival Western music, and have been available to Western music scholars since the Renaissance, or even earlier.
art music’s repertoire for complexity and intricacy. Schoenberg, to quote political scientist Charles Taylor, is unnecessarily “being inhospitable to difference.”\(^{22}\) Music delights; why privilege one single tradition (Western) over all the others?

Moreover, Schoenberg quips “[traditional music and art music] may not be as different as oil and olive oil or holy water and washing water, but they mix as badly as oil and water.”\(^{23}\) I disagree with this statement, in fact much of my composition portfolio is an attempt to successfully mix the two using various compositional approaches (see Composition Portfolio). Schoenberg’s objection does not have any weight behind it and nor does he offer any supporting evidence. I hold that cross-cultural composition offers the possibility of a new aesthetic – a medium through which a composer can succeed in developing and employing

\(^{22}\) Taylor (1994), p. 60.
Aesthetics

It will become apparent why any matter pertaining to philosophy begins with a definition of the appropriate terms. By 'aesthetic appreciation', I refer to the sensory and emotional experience one has when one engages with an acute drama, inspects a Monet, listens to a Bach sonata, surveys a beautiful landscape, and so on. When one experiences X aesthetically, they are aesthetically appreciating X. As Carolyn Korsmeyer notes, "Just as one cannot decide that soup is well seasoned without sipping it, so one cannot conclude that music is lyrical and moving without hearing it. No second-hand account will suffice to make the aesthetic judgement." When one has an aesthetic reaction, one is responding emotionally, deciding how positive or negative (where on the continuum between the two) the experience in question is, and an 'aesthetic judgement' is the application of that reaction – for example, when one says they prefer Beethoven's Symphony VII to his Symphony IV. So, when one compares aesthetically, one must go through two steps after appreciating (experiencing) – one must have an emotional response, and then must make a judgement regarding that response (and the extent that these judgements are 'rational' is, at best, an open empirical question, not for discussion here).

Formalism in aesthetics is the view that what one aesthetically appreciates in experiencing an artwork is strictly the internal components, "lines and colours combined in a particular way, certain forms and relations of forms." Bell (1914) calls this 'significant form'. For music then, this is specifically "tonally moving forms" – 'tonal' in reference to 'tones', not in opposition to 'atonal'. According to this view, the content of music is sounds and these sounds are arranged in forms. For the formalist, there is no other content in the music – for instance, among other things, feeling. Although a performer may perform passionately, and the audience are moved by the music they perceive, the sounding itself was not transmitted as musical content in the performance. Rather, formalists such as Hanslick (1969) and many of Kendall Walton's papers (especially 1993) appeal to physiology and psychology to explain the feelings associated with certain music, not on the basis of the music itself. My definitions are influenced by Korsmeyer (2005), Barwell (2009), and many of Kendall Walton's papers (especially 1970 & 1993).
Moreover, formalists reject that any external component of the artwork is aesthetically valuable. Bell rejects that the social and political aims of the artist are of aesthetic value and he rejects that any knowledge about the artwork is of aesthetic value – for instance the era in which it was created, who by, for what reasons, and so on (Bell, 1914).

Kendall Walton (1970, 1993) and Allen Carlson (1979, 2005) oppose this view. They argue that external components are indeed of aesthetic value. They point to examples with which they show that one cannot fully aesthetically appreciate an artwork without understanding something about it. For instance, Robert Rauschenberg once carefully obliterated a drawing by de Kooning, titled the bare canvas “Erased De Kooning Drawing”, framed it, and exhibited it,6 and his doing so is aesthetically significant. Consider John Cage’s 4’33” (1952).

This piece of music is like no other composed before it, and makes it impossible to properly perceive all of the components that make up Cage’s intentions behind the piece. Knowing the intentions of a piece seems to help one’s aesthetic experience of it, and makes it possible to properly perceive all of the components that make up a piece. Knowing the composer’s intentions, or his reasons behind the piece, can alter one’s perception of the piece. For instance, knowledge about a piece makes a difference. “One might simply not think to listen for a recurring series of intervals in a piece of music, until he learns that the composer meant the work to be structured around it.”8 Knowing the intentions of a piece seems to help one’s aesthetic experience of it, and makes it possible to properly perceive all of the components that make up a piece. Knowing the composer’s intentions, or his reasons behind the piece, can alter one’s perception of the piece.
despite the fact that significant form is not their primary function – facilitating advertising and marketing is their primary function (see Walton, 1999), and it follows that when one aesthetically experiences a jingle, one should do so knowing what it exists for, not just in terms of its internal components (harmonies, voice-leadings, lines, shapes, tone colours, and so on), otherwise one’s aesthetic appreciation may be misinformed. Moreover, Zangwill (1995) argues that music is aesthetically valuable in the way it serves its extra-musical functions.

Morris Weitz believes that the debate between the formalists and their opponents “radically misconstrues the logic of the concept of art.” Indeed, especially considering art’s diversity, one should not privilege one way of appreciating art over another. It is that sensitivity and respect to social and cultural contexts – actual sequences and robust processes – which can bridge the gap between the aesthetic experience of a work and one’s contextualised understanding of the piece of art.

An important analogy can be made between the aesthetic experience of a work and one’s approach to aesthetic experience. I propose that an actual sequence approach to analytically understanding or experiencing a piece of art is one in which the listener perceives “this sound”, then “this sound”, then “this sound”, then...

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I propose an actual sequence approach to analytically understanding or experiencing a piece of music is one in which the listener perceives “this sound”, then “this sound”, then “this sound”, until the end of the piece. In other words, the actual sequence approach describes the piece of music as one in which the listener perceives “this sound”, then “this sound”, then...

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Zangwill (1995) argues that music is aesthetically valuable in the way it serves its extra-musical functions.
is applicable to do so for music within some other social or cultural context. However, in these specific cases it is the same movement through melodic cells in In C and the shifting...

14 Goehr (2005), p. 221.
APPENDIX IV

Compact disc supplement 15

Disc can be located inside back cover.

Traditional Javanese gamelan repertoire

1. Ladrang Gleyong Pelog Nem

2. Ketawang Asmarandana (Wiled) Slendro Manyura

3. Lancaran Udan Mas Pelog Barang

performed by Gamelan Padhang Moncar, including myself, and students of the New Zealand School of Music (directed by Budi S. Putra)

Extract from traditional Balinese gamelan repertoire

4. Pengipuk from Puspanjali performed by Gamelan Taniwha Jaya, including myself (directed by Gareth Farr)

5. Yangqin standard repertoire

6. (The General’s Order) performed by Wang Hui (yangqin) and myself (drum)

7. (Climbing Mountain to Kill the Tiger) performed by Wang Hui (chunti) and myself (gamelan instruments)

8. Lecanir Pan Long Ploeg Nem performed by Gamelan Padhang Moncar, including myself (directed by Budi S. Putra) with Tristan Carter (violin) and the New Zealand School of Music Jazz Choir (directed by Julian Raphael)

9. Terry Riley’s In C performed by Andrzej Nowicki and Karlo Margeta (clarinet), Pieta Hextall (trumpet), Lauryn Williamson (saxophone), Simon Eastwood (doublebass), and my self (gamelan instruments)

performed by Andrew Norgard and King Magetan (clandi), Peri Hertadi (renggan), Lavin Wiharnsoyo

10. Terry Riley’s In C performed by the SMP Ensemble

performed by Andrew Norgard (clarinet), Kylie Nesbit (bassoon & viola) and myself (Javanese gamelan instruments)

All tracks on this compact disc are my own recordings (except track 8, which was recorded by Roy)

as The SMP Ensemble

as The SMP Ensemble

(pre-compositional research activities)

as The SMP Ensemble

as The SMP Ensemble

as The SMP Ensemble

as The SMP Ensemble

as The SMP Ensemble

as The SMP Ensemble

as The SMP Ensemble

as The SMP Ensemble

as The SMP Ensemble

as The SMP Ensemble
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**SOUNZ The Centre for New Zealand Music**

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The SMP Ensemble (2010), \textit{Podróże – Journeys} (New Zealand: Amstore)
Anton Killin

1. Cycles, Shadows
2. Wigena
3. Melody for Violin and Yangqin
4. To –
5. Ketawang Anggun Slendro Manyura
6. Ladrang Santai Slendro Sanga
7. Gendhing Tarikan Pelog Nem
8. Mermecolion
9. Podró
10. Elegy
11. Tabula Rasa
12. Primes
13. After Clive Bell
14. Outside my Front door

Extended programme notes for all of the following works can be found in the thesis that precedes this composition portfolio.

Ketawang Anggun Slendro Manyura, Ladrang Santai Slendro Sanga and Gendhing Tarikan share a combined extended programme note, Three Pieces for Gamelan in Traditional Central Javanese Style with Western Instruments. However, they should be considered separate pieces, not three movements of a single piece.
Cycles, Shadows

for clarinet, viola doubling bassoon (or viola and bassoon), and Javanese gender (slendro)
Cycles, Shadows is dedicated to Jack Body and was composed for performance by Andrzej Nowicki (clarinet), Kylie Nesbit (bassoon and viola), and myself (gender). It was premiered in New Zealand on 3 October 2009 at the Adam Concert Room in Wellington.

The cycles-within-cycles and extreme performance requirements are directly inspired by Jack Body's Epicycle string quartet, while the rhythms are inspired by traditional Chinese erhu.

Photo of Andrzej Nowicki, Kylie Nesbit, and myself courtesy of Megan Ward.
Performance Instructions

Gender player

Strike gender with the traditional Javanese tabuh (beaters)

A '+' sign attached to a note requires the performer to strike the key with the wooden end of the tabuh.

Dampen according to the score (rests = no sound! – unless 'l. is indicated)

This should be sounded sharp and clear

Attempt to avoid all instrument squeaks and buzzes – this may involve checking the resonating luhes

of the instrument before performance

Strike gender with the traditional Javanese tabuh (beaters)
Virtuosic! $q = 120$

Cheeky and quirky

Cycles, Shadows

Javanese gender

Clarinet in B

Viola
doubling Bassoon

TRANSPOSED SCORE

ANTON KILLIN

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Cheeky and quirky

Tempo primo $= 120$

加速，
Confident, strong, symbiotic

Proud

Tempo primo
q = 120

Accelerando

Resonance

Confessional, strong, symbolic
for string quartet, Javanese instruments, and Javanese rebab solo

Wigena

ANTON KILLIN
Wigena is a prescriptive transcription of a traditional Javanese gamelan piece, recast for pizzicato string quartet with gamelan instruments. Kenong, kompi, and gong ageng mark the traditional colotomic structure of the work, and the melodic leader of the gamelan, the rebab (a two-string vertical fiddle) appears here as a soloist.
The gong, kempul and kenong player

Instruments required
- Gong ageng, kenong (pelog 1 & 5)
- Kempul (pelog 5 & 6)

The rebab transcription is intended as a melodic and rhythmic guide only.

The rebab player

Procede and follow this description, so long as it falls between the viola's two notes that immediately precede and follow it. The kenong and kempul notes are already notated to be played slightly a semiquaver after the beat, though the exact timing may be varied at the performer's discretion, so long as it falls between the viola's two notes that immediately precede and follow it. The gong ageng, kenong and kempul notes are to be left to ring on (l.v.).

Gong notes
- denote kenong
- denote kempul
- denote gong ageng

Kempul notes are to be dampened.

Gong, kenong and kempul notes are to be left to ring on (l.v.).

Performance Instructions

The gong, kempul & kenong player

Note may be decorated/ornamented in the performer's own style, etc. though...
Folk-like expression

$q = 72$

Wigena

Anton Killin

String Quartet

(accel.)

pizz

Rebab

Folk-like expression $= 72$

1

Wigena

Anton Killin
3rd time through: rit. poco a poco (until Section C)
\( C = 80 \) (3rd time through)
Melody for Violin and Yangqin

ANTON KILLIN
Melody for Violin and Yangqin was composed for performance by Elena (violin) and Wang Hui (yangqin). It was premiered in New Zealand on 26 March 2010 at the Massey Concert Hall in Wellington, and was first performed in China on 12 June 2010 at the Little Egret Music Hall in Xiamen.
To

ANTON KILLIN
To - was composed especially for my Javanese gamelan teacher, Budi S. Putra. It is a short work inspired by my transcribing of Indonesian vocal music. The lyric, Saya orang lewat (I'm a passerby) is my own poetic response to the Edgar Allan Poe verse To -.
Voice

Javanese Speaker

Lucas Pobos

Macho Tubalao

- 70 Mournful

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To -

ANTON KILLIN

translation assistance from YONO SUKARNO
Ketawang Anggun Slendro Manyura

ANTON KILLIN
Ketawang Anggun Slendro Manyura was composed for violist Kylie Nesbit and Gamelan Padhang Moncar. It is based on traditional Javanese gamelan conventions such as form, scale, mode, and tempo structure.
Ladrang Santai Slendro Sangga

ANTON KILLIN
Ladrang Santai Slendro Sanga was composed for myself (guitar), Gamelan Padhang Moncar, and friends studying vocal performance at the New Zealand School of Music. It is based on traditional Javanese gamelan conventions such as form, scale, mode, and tempo structure.
Ladang Santai Slendro Sangga
NGELIK (tutti; with singers & soloist)

mf

unisono, though with individual expression & movement

Out in the shade

expression & movement

music with individual f

 Qui in the

NGELIK (tutti; with singers & soloist)
\[ \frac{3}{5} \text{ molto rit.} \]
Gendhing Tarikan Pelog Nem

ANTON KILLIN
Gendhing Tarikan Pelog Nem was composed for accordionist Jonathan Berkahn, clarinettist Andrzej Nowicki, and Gamelan Padhang Moncar. It is loosely based on traditional Javanese gamelan conventions such as form, scale, mode, and tempo structure, which I have developed especially for this piece.
Lively Lively

ANTON KILLIN

Gendhing Tarikan Pelog Nen

Clarinet in B

Accordion

Balungan/Cipher

Gamelan short score

LANCAR speed

Lively

Balanget(piber)

I. ANCAR speed

Accordian

I. ANCAR speed

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upon repeat (of bb. 32-64): clarinet tacet for 2nd time through this passage (bb. 32-39)
D.S. performing through both repeats for 1st and 2nd time bars at bb.39/40 (6) Suzuki (ending) 
for 1st and 2nd time bars at bb.39/40
D.S. performing through both repeats
Mermecolion

Anton Killin
A mermecolion is a somewhat obscure mythical creature. It is a hybrid, combining the body of a giant ant with the head and foreparts of a lion. The combination of such physically contrasting species is the motivation and inspiration for this short electroacoustic piece, in which several soundworlds are combined to create a hybrid soundworld: strings and flutes, Balinese gamelan, and electronic sounds.

Mermecolion was premiered in the United States on 3 October 2009 at the Wallstreet Club in Columbus, Ohio, and has received subsequent performances throughout the USA and also in Ireland, France, England, Spain and Canada.
Podróże ("Journeys") depicts the incredible story of an anonymous man's journey as a child in World War II: from Poland to the labour camps in Siberia, to Iran, and eventually to New Zealand as a Pahiatua child. His narration is punctuated and ornamented with electroacoustic sounds.

Podróże was premiered in New Zealand on 6 November 2009 at the Adam Concert Room in Wellington.
Elegy

For piano and Javanese gamelan

ANTON KILLIN
I was moved to compose an elegy after the death of a friend. A gamelan note doubles every frequency that produces a shimmering effect. The slight differences in tuning between the gamelan and a piano create beating piano notes. I was moved to compose an elegy after the death of a friend.
Gamelan Instrumentation

A minimum of five gamelan players is required - though more is fine too.

Before performance, players must familiarize themselves with their instruments, particularly a gendér (a single downwards strike) unless a tenuto mark is given.

Try to avoid all gamelan instrument squeaks and buzzes - this may involve checking the instruments before performance.

Dampen according to the score (rests = no sound! -- unless l.v. is indicated).

Strike instruments with their traditional tabuh (beater).

Gamelan Performance Note

Strike balungan instruments vertically (a straight downwards strike), unless a tenuto mark is given.

Try to avoid all gamelan instrument squeaks and buzzes - this may involve checking the instruments before performance.

Dampen according to the score (rests = no sound! -- unless l.v. is indicated).

Strike instruments with their traditional tabuh (beater).

Gamelan Instrumentation
Piano

Pelog saron

Slendro demung

Pelog gender

Slendro gender

Pelog demung

Pelog slenthem

Piano
Piano

Pelog + Slendro bonang panerus

Pelog peking

Slendro saron

Pelog saron

Pelog demung

Slendro demung

Pelog gender
Piano

Pelog + Slendro bonang panerus

Slendro saron

Pelog saron

Slendro demung

Pelog demung

Slendro slenthem
Slendro saron
5

Pelog gender
1

Piano
p1 + s2
pp

Slendro gender
f

5
rather aim for a resonant, subtle drone
-- aim not to allow any of the strikes of the beater to be heard --

(1) may be appropriate to use gender beaters for this effect

\( \text{Piano} \)
Tabula Rasa

for Chinese yangqin (dulcimer) and live electronics

ANTON KILLIN
Tabula Rasa was composed for performance by Wang Hui (yangqin) and myself (live electronics). It was premiered in New Zealand on 26 March 2010 at the Massey Concert Hall in Wellington. Tabula Rasa means "blank slate". I approached the yangqin as a box with strings possible of producing many different sounds when interacted with in different ways, extended by the use of live electronics.
Performance Instructions

Realising the graphic score:

- The x-axis represents time - each graph length is ten seconds.
- The y-axis represents speed - the top of the y-axis represents very fast playing, the bottom represents very slow playing, and all other speeds fall in between.
- The thicker the graphic gesture (line/shape), the louder the dynamic.
- The thinner the graphic gesture, the softer the dynamic.
- Indications of timbre/technique are notated in prose above the graphic gestures. Indications of any specific pitches are notated in circles underneath graphic gestures.
- Indications of technique are notated in prose above the graphic gestures.
- SHORTHAND:
  - L.H. and R.H. denote left hand side and right hand side, respectively, of the yangqin, from the performer's perspective.
  - The thicker the graphic gesture, the louder the dynamic.
  - The thinner the graphic gesture, the softer the dynamic.
  - L.H. and R.H. denote left hand side and right hand side, respectively, of the yangqin, from the performer's perspective.

- The thicker the graphic gesture, the louder the dynamic.
- The thinner the graphic gesture, the softer the dynamic.
- L.H. and R.H. denote left hand side and right hand side, respectively, of the yangqin, from the performer's perspective.

- The thicker the graphic gesture, the louder the dynamic.
- The thinner the graphic gesture, the softer the dynamic.
- L.H. and R.H. denote left hand side and right hand side, respectively, of the yangqin, from the performer's perspective.

- The thicker the graphic gesture, the louder the dynamic.
- The thinner the graphic gesture, the softer the dynamic.
- L.H. and R.H. denote left hand side and right hand side, respectively, of the yangqin, from the performer's perspective.

- The thicker the graphic gesture, the louder the dynamic.
- The thinner the graphic gesture, the softer the dynamic.
- L.H. and R.H. denote left hand side and right hand side, respectively, of the yangqin, from the performer's perspective.
The piece begins with default setting Chime activated.

Throughout, the sound artist can, at their discretion, improvise with parameters of the default settings, retaining the acoustic instrument's electronic extension of the acoustic instrument, heightening its sonic capabilities, not at all overpowering the acoustic instrument.

The volume of the electronics should not be too loud — enough to appear as an embellishment of the performance of this piece.
As the yangqin performer begins page 5, this should be changed to default setting for the sound artist to follow during performance:

Above and Below for the second half of page 12.

Chime for the first half of page 12. Ballerina for the first half of page 12.

This should be changed back to Chime for the first half of page 9; Ballerina for the second half of page 9;


It is recommended that these changes are annotated onto the score for the sound artist to follow during performance.

As the yangqin performer begins page 6, this should be changed back to Chime, and then back to Ballerina for page 7. The second half of page 7, however, should be changed to default setting Above and Below:

As the yangqin performer begins page 6, this should be changed back to Chime, and then back to Ballerina.

As the yangqin performer begins page 6, this should be changed back to Chime, and then back to Ballerina.
TABULA RASA

for Chinese yangqin and electronics*

(open L.H. woodboard, revealing pins)

(Striking R.H. woodboard)

Strike R.H. woodboard

*see separate info sheet

© ANTON KILLIN MMX
Striking any (single) pitch

Striking R.H. wood board

0' 40"

6' 50"
Knock (with knuckles)  Knock open
Wooden underbelly  L.H. Woodboard

Striking nominated
pitch at any
(single)
register
per pitch

100"
fingerpicking strings, after
the bridge on open L.H. side

striking L.H. (open)
woodboard

striking any (many)
strings, after the bridge
on open L.H. side
Striking woodboards on both sides

striking nominated pitch at any (single) register, per pitch
Striking R.H. Woodboard

open the R.H. Woodboard
Striking tuning pegs

Striking wood by tuning pegs

Striking R.H. (open) wood board

Striking tuning pegs

Striking wood by tuning pegs

2'40"

2'50"
Striking nominated pitch at any (single) register, per pitch.
Striking both L.H. & R.H. open wood-boards

Striking any (many) strings, after the bridge on L.H. side

Striking tuning pegs
Striking the instrument in various places (anywhere)

Close the R.H. woodboard

Striking R.H. woodboard
Primes

ANTON KILLIN

for clarinet in B-Flat
Primes was composed for performance by clarinetist Andrzej Nowicki. It was premiered in New Zealand on 28 October 2009 at the Adam Concert Room in Wellington.

Primes is composed out of prime number structures and relationships and evokes a mathematically influenced soundworld.

Photo of Andrzej Nowicki courtesy of Rachel Brandon
Extended techniques

The overall volume ratio (of both fundamental tone and multiphonic tone) should be as even as possible.

The effect should be performed as quietly as the performer can successfully create it. (This may mean that it is louder than the given $ppp$.)

Notes labelled with a $V$ sign (e.g. $b.31$) may be slap-tongued (optional), or otherwise they should be percussive sounding, at the performer's discretion.
Grave

q = 60

Agitated, Isolated, Melancholic

ANTON KILLIN

Primes

à Andrzej Nowicki

TRANSPOSED SCORE

pp

vibrato; widening vibrato on longer notes

ppp

pp

multiphonic

#1

5

pp

pp

mp

ppp

p

9

pp

ppp

mp

p

ppp

14

p

pp

mp

p

p

ppp

n

17

mp

p

mp

pp

ppp

pp

11

pp

1

21

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ppp

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1
Mini cadenza (like an "after-thought")

V = optional slap-tongue
(or, at least percussive sounding)

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piano solo

After Clive Bell

ANTON KILLIN
After Clive Bell was composed in a single day to comply with the rules for submission to the 2010 ICSM Momentary Pleasures concert. Pianist Sam Jury premiered this piece in New Zealand on 27 June 2010 at the Adam Concert Room in Wellington.

Each of the spacious and slow moving sound events that comprise this work invites a reflection on the colors and movements of lines internal to the piece. The performer determines the exact motion of these events, an ever-changing flow from moment to moment.
Very slow and spacious molto rubato

After Clive Bell

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piano solo

ANTON KILLIN
Outside my front door

ANTON KILLIN
Outside my front door is a short electroacoustic piece capturing the soundscape of my own place of residence. Outside my front door I hear the chirping of new born chicks, the distinctive call of Tuis (Aotearoa's famous songbird), planes whizzing overhead, cars driving past, and the creaky gate next door slamming shut.

Outside my front door was premiered in the United States on 8 June 2010 at the Electronic Music Foundation in New York and received its first performance in New Zealand on 1 June 2010 at the Nelson School of Music in Nelson.