

An investigation of the electric bass guitar in
Twentieth Century popular music and jazz.

A thesis presented by David Stratton in partial fulfillment of the
requirement for the degree, Master of Arts (Honours).

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Abstract

The acoustic bass played mostly an accompanying role in popular music during the first half of the Twentieth Century, whereas the arrival of the electric bass guitar in the early 1950s presented new opportunities for acoustic bassists and musicians, composers, producers, engineers, the recording industry and the listening public. The distinctive sound of the electric bass guitar encouraged musicians to explore new timbres. The musicians who embraced the electric bass guitar developed its language, discovering and employing different techniques. The instrument became a catalyst for change and took on a more prominent role, forever changing the sonic landscape of popular music and jazz in the Twentieth Century.

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Declaration

I, David Stratton, declare that this thesis, submitted in fulfillment of the requirements for the award of Master of Arts (Honours) at the University of Western Sydney, is wholly my own work unless otherwise referenced or acknowledged. The document has not been submitted for qualification at any other academic institution.

Signed:

Date:

Titles of CD & DVD recordings

CD

Tracks

1. *The Last Song Of The Blackbird* (David Stratton, 1999)
2. *Madeleine* (David Stratton, 1987)
3. *Blues For Oscar* (David Stratton, 1999)
4. *The Descent Of Nebuchadnezzar* (David Stratton, 2000)
5. *The Fisher Of Men* (David Stratton, 2000)
6. *Beachwalk* (David Stratton, 2000)
7. *Dumped by a Wave* (David Stratton, 2000)
8. *Tribeca* (David Stratton, 2004)
9. *Conversations with Myself* (medley: David Stratton, Horace Silver, Alfred Ellis & Charles Calhoun, arranged by David Stratton, 2004)
10. *Misty* (Errol Garner & Johnny Burke, 1954)
11. *Two Part Intervention* (David Stratton, 2004)
12. *Darkness & Light* (Matthew Doyle & David Stratton, 2004)
13. *Frederick St.* (David Stratton, 2004)
14. *6/4 Blues* (Matthew Doyle & David Stratton, 2004)
15. 'Prelude' *Cello Suite No. 1* (J.S. Bach)

Recital 2 (DVD 1)

9 October 2001

1. *Nebuchadnezzar - Caught in the Forest* (Graham Jesse, 2000)
2. *The Descent of Nebuchadnezzar* (David Stratton, 2000)
3. *The Fisher Of Men* (David Stratton, 2000)
4. *Seeing Stars* (Michael Bartolomei, 2000)
5. *Beachwalk* (David Stratton, 2000)
6. *Dumped by a Wave* (David Stratton, 2000)

Filmed by Mitchell Hart in the Performance Space, Building O, Kingswood Campus
UWS Nepean

Recital 3 (DVD 2)

16 August 2004

1. *Tribeca* (David Stratton, 2004)
2. *Conversations with Myself* (medley: David Stratton, Horace Silver, Alfred Ellis & Charles Calhoun, arranged by David Stratton, 2004)
3. *Misty* (Errol Garner & Johnny Burke, 1954)
4. *Two Part Intervention* (David Stratton, 2004)
5. *Darkness & Light* (Matthew Doyle & David Stratton, 2004)
6. *Frederick St.* (David Stratton, 2004)
7. *6/4 Blues* (Matthew Doyle & David Stratton, 2004)
8. 'Prelude' *Cello Suite No. 1* (J.S. Bach)

Filmed by Mitchell Hart in the Performance Space, Building O, Kingswood Campus
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DVD and CD items are pocketed in the back cover

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Dedication

I dedicate this work to my mentors, Ron Arthur, Eric Bryce AM, George Golla, and Don Burrows AO, MBE, who each have taken the time to share their love of music with me, given me the guidance and encouragement to pursue that love, and taught me the importance of a good bass line.

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Chapter 1

Introduction

1. Introduction

The bass, in both electric and acoustic forms, has a critical dual role to play in popular music and jazz. It is responsible for providing integral rhythmic support alongside the drum kit and is the foundation for harmony and melody, yet rarely draws the listener's focus. Given these responsibilities, the paradox remains that the bass is considered a "quintessentially inside instrument that remains a mystery to most listeners and, perhaps, to many critics" (McDonough, 2003:47).

This exegesis focuses on de-mystifying the role and function, and exploring the potential of, the electric bass guitar. I examine the part the instrument has played as an "agent of change" (Waksman, 1999:13) in the culture of popular music and jazz. As Waksman was concerned with the electric guitar, similarly I am concerned with how the electric bass guitar has been integrated into a broad range of existing musics and how as a result of this integration, the music has been affected. For Waksman,

instruments are crucial to this search for knowledge through sound because they are the nexus at which the abstract codes of music-making meet the material acts through which music is produced (Waksman, 1999:10-11).

My intention is not to write a comprehensive report on the history of the instrument, but rather to draw on significant events in that history relating to my investigation. These events include aspects of playing technique, the role played by technology and innovation in instrument construction, bass culture, and the bassists who are innovators on the instrument.

This thesis has three parts, two of which are creative components: (1) compositions for bass; (2) performance and recording of these works, including musical direction; and (3) an exegesis in which I describe the context for my composition, performance, recording and musical direction. I have situated each of these elements both historically and in contemporary practice.

To achieve my aims I have employed mixed methods in order to collect relevant information and engage with the topic. This includes evaluation of bass instrument performances; listening to and analysis of recordings significant to the development

of the instrument; compositions with, and for, the electric bass guitar; recording and analysis of my own compositions and performances; conversations and correspondence with leading professionals; and a review of relevant literature and websites.

There is disproportionate representation of the electric bass guitar in the literature, relative to the amount of information available for other essential instruments of popular music and jazz (in particular, guitar, drums and keyboards). I contend this mirrors the disproportionate number of musicians who are engaged in playing an instrument that is an essential part of popular music and jazz. There are less bass players than there are guitarists, drummers and keyboard players. Guitars, drum kits and keyboards continue to be the popular instruments of choice, ahead of bass. This was the motivation to undertake my research, for in my role as a professional bassist and educator for over 24 years, I occupy a fortunate position in that the knowledge and experiences I have accumulated can also inform the discussion.

1.1 The research process

Performance and self-evaluation

The process of listening to, and understanding bass function began long before my period of candidature with early musical training and performances on euphonium and tuba in the brass band movement. The process of self-evaluation continues to be part of my daily performance practice as a professional bassist (acoustic bass, electric bass guitar and tuba). In this survey I have mostly used the ‘jazz’ model (theme/improvisation/ theme) in my composition and performance. Improvisation allows for flexibility of melodic, harmonic and rhythmic development. During the period of candidature I have explored the use of a variety of instruments including fretted 6-string and 4-string and fretless 5-string electric bass guitars, as well as acoustic bass and tuba. The stringed instruments used range from elementary in design¹ through to new technology, neck-through body instruments² with active electronics³. The three

¹ Fender Precision bass 1972 - a design predominantly unchanged from 1958.

² Warwick Streamer Stage 1 - a fretted 6-string neck-through body bass and a Warwick Thumb Bass fretless 5-string neck-through body bass, both with active electronics.

recitals I performed focusing on bass have been presented in various ensemble groupings, from solo to duo, trio, quartet and quintet. Over the course of the recitals I incorporated various combinations of instruments including saxophone, flute, trumpet, piano, didjeridu, drums and percussion. Performance has allowed me to present an overview of bass role and function by beginning with fundamental playing styles, evolving through to more developmentally challenging examples of new music. Evaluation has helped to develop aspects of my performance and composition and create a deeper understanding of, and appreciation for, the potential of the electric bass guitar in contemporary music.

Listening and analysis

This process took two forms, one relating to my own performance practice, and the other, surveying and reporting on recordings by significant bass players who have had an impact on the development and advancement of the instrument. As a professional musician, one must always analyze and evaluate personal performance in order to maintain professional standards. The collection of data relating to notable bass performances began before candidature. Listening to radio, records and television as a child I began to identify musical ideas relating to bass function, and supported by rehearsal and performance opportunities as a young musician, I began to accumulate sequences and patterns typically associated with the bass role. This process continued as music styles emerged and is ongoing. I have investigated traditional bass lines and techniques through to transitional approaches and I believe that the electric bass guitar will continue its evolution as further techniques, sounds and applications are developed for it. Scholarly investigation has allowed me to explore, examine and reflect on how and why bass function has evolved along with popular music and jazz from the early 1900s through to contemporary styles.

Composition

The opportunity to experiment as I composed for the electric bass guitar presented challenges and rewards as I sought to explore and extend its function beyond a

³ Electric circuitry built into a bass guitar designed to boost pickup output and offer greater variation in equalization of the signal.

fundamental support role. My compositions situated the bass within a range of functions, from that of supporting harmonic structures, to principal melodic instrument and through to unaccompanied instrument, covering bass line, harmony and melody simultaneously. Timbre was an important compositional consideration in presenting the electric bass guitar in performance. Utilizing different bass instruments and playing techniques further demonstrated the instruments viability and potential in roles other than conventional. Ensemble timbre was also a consideration when directing my ensemble to focus on the bass element. Highlighting the similarities and differences between instruments further supported the discussion. I took the position that the instrument should not be subservient, particularly in the third recital (16 August 2004).

Recording and analysis of my own composition and performance

The process of recording was critical to informing, evaluating and assessing and for determining that which was successful and less successful compositionally and in performance. On reflection I was able to focus more on releasing the bass from its obligations by reviewing recordings of my own compositions and performances over the period of candidature.

Conversations and correspondence

I have conducted an ongoing dialogue with bassists and other musicians nationally and internationally where discussions have included open-ended questions including “What is bass?” and “What is its function?” This led to wide ranging conversations incorporating instrument design and technology, playing techniques, performance and composition. The opinions of professional bassists and musicians who shared their personal experiences played a critical role in the discourse. This input has helped form my own assessment of the contemporary view of the electric bass guitar.

Literature

My research has been informed by a survey of relevant literature. This included books, journal articles, academic databases and websites to expand my knowledge

and understanding of the role, function and perception of the electric bass guitar in a musicological, social and cultural context. Published literature related to the electric bass guitar generally falls into three categories: (1) method - instructional books where the emphasis is on either 'how to' play the instrument or 'how to' play a particular style; (2) transcription - where a particular bassist's style, or a specific music style is explored. Transcriptions include bass parts and/or bass solos. These books are a valuable aid but the content rarely includes a detailed analysis of the music; (3) historical overview - from the perspective of instrument design and development. Technical specifications relating to design are researched, usually in a chronological sequence. Profiles of famous bassists are often discussed. These books in particular are usually well illustrated and document changes and modifications to equipment over time. For example, the book *How The Fender Bass Changed The World* (Roberts, 2000) is the first significant work to explore the electric bass guitar and its impact with reference to social and cultural context. While not academic in style, it is engaging, informative, well researched and suggests areas for further academic exploration.

Journals and periodicals contain articles incorporating elements of bass method, transcriptions and historical background usually in each issue. Titles include *Bass Player* (USA), *Bassist* (UK) and *Bassics* (USA). These publications contain valuable information and resource material for musicians, teachers and students but often do not go into great detail. As commercial publications, these contain a significant amount of advertising material. Many articles describe technical problems, but because of their brevity, are not able to resolve issues. Acoustic bassists are well served by the quarterly journal *International Society of Bassists*. Recently the Society launched an Online Journal of Bass Research (www.ojbr.com) to publish original research bi-annually on aspects related to the acoustic bass and its history. There is no comparative electric bass society in existence, nor does a dedicated forum exist to have original research published.

My search of academic databases included *Repertoire International de Litterature Musicale (R.I.L.M)*, *Expanded Academic*, *Project Muse* and *Music Index Online*. The results of the search reveal that very few extensive investigations have been made into the instrument. Most significant were 'When women play the bass: instrument

specialisation and gender interpretation in alternative rock music' by Mary Ann Clawson (*Gender & Society* April 1999) and 'The appearance of the electric bass guitar: a rockabilly perspective' by Roy C. Brewer (*Popular Music And Society* October 2003). Journal articles generally were interview based player profiles. Academic publications relating to musicological, cultural and sociological aspects of popular music and jazz make only passing reference to the electric bass guitar.

Websites are significant in number, but are sometimes poorly researched and often highly opinionated. There are fan sites (some official and others not) dedicated to a particular bassist that can be helpful in researching biographical information. Of note are the official websites of Carol Kaye and Will Lee where Kaye and Lee will respond to unsolicited questions from musicians and fans. Chat rooms on bass websites generally involve discussion of the 'best' strings, pickups, amplifiers, speakers and instruments or give advice on 'how to play'. They reveal little information on new music practices.

In this research project the multidimensional process of creation, performance, analysis and reflection of bass music is both a cyclical and ongoing field of enquiry.

1.2 Background and historical context

The acoustic bass predominantly fulfilled an accompanying role during the first half of the Twentieth Century. It was subservient to other instruments and was rarely given an opportunity to step outside of these parameters, due largely to the problem of insufficient volume and projection. The implementation of electrical technology in both the recording process and design and manufacture of musical instruments was to have a profound and ongoing impact on many aspects of music. Early experiments with this technology in bass building began with the incorporation of electrical components in instrument design, initially via rudimentary pickups in 1924 and also amplification. This met with limited success in addressing the problem of acoustic bass volume and projection.

Leo Fender designed what is considered to be the definitive electric bass guitar in 1951. A solid body instrument with virtually no acoustic properties, this instrument

relied entirely upon sound production via electronic means. Fender's pickup design coupled with an efficient bass amplifier provided an opportunity for bassist to project a louder, more defined sound. Significantly, Fender's design was based on the model of a guitar, an instrument that is held and played horizontally. The electric bass guitar has more in common with the lute family, whose bass variants date back to the middle of the Sixteenth Century with the *theorbo* and *chitarrone* (Roberts, 2000:18-19). It had no physical resemblance whatsoever to an acoustic bass. A recent historical study suggested that

the history of the bass guitar, if stretched to include other horizontal basses, goes back a lot further than we might have thought. We could even conclude that the horizontal and vertical approaches to building stringed instruments have developed in parallel over the past 500 years - so perhaps we should think of the double bass and the bass guitar as cousins, rather than father and son (Roberts, 2001:20).

The influence of 'guitarist-as-bassist' has been understated in the literature. The electric bass guitar's smaller body size and fretted fingerboard made it physically more accessible than the acoustic bass, 'opening the door' for other musicians, guitarists in particular, who readily adapted to it. Guitarists who converted to the electric bass guitar particularly as session musicians in the 50s and 60s, brought innovative musical ideas to the bass *oeuvre* and gave the instrument a different sound by the use of a pick to pluck the strings, rather than the conventional pizzicato style favoured by acoustic bassists.

There is no evidence to suggest Leo Fender considered an electric upright (vertical) bass as an alternative design. Had Fender pursued the idea of developing an effective pickup and amplifier for an electric upright bass, he may have resolved the problems faced by acoustic bassists, and there may have subsequently been little or no demand for a horizontal bass guitar. This may have effectively 'closed the door' for those guitarists and other musicians who wanted to 'double' on a bass instrument. They would have been too daunted by the physical challenge of mastering the acoustic bass fingerboard. The result would have been a significant loss of creative input given to bass line construction. By design, the electric bass guitar alienated acoustic bassists, while being 'user friendly' to guitarists.

The musicians who embraced the electric bass guitar developed and employed different techniques from those used by acoustic bassists, creating bass lines incorporating more melodic and rhythmic variation and producing previously unheard timbres. This had a notable effect on the development of the bass line in popular music. It challenged convention and opened up new possibilities for the instrument. The electric bass guitar became a catalyst for change. Its distinctive voice emerged in popular music as it took on a prominent role, changing the sound of popular music. But in several quarters there was resistance to change. Some musicians and composers preferred that the bass function follow the previously accepted conventions established by the acoustic bass. In jazz there still remains at best, a grudging acceptance and at worst, an outright rejection of the electric bass guitar as a valid instrument.

In discussing bass culture I have taken a broad view by incorporating cultural elements relating to both electric and acoustic bass, as historically they share similar musical responsibilities. Cultural stereotyping of the instrument, and its players still exists. The misnomer that bass playing is easy or simple and requires only limited musical talent or intelligence has been perpetuated. This problem has existed at least since the Eighteenth Century within acoustic bass culture (see comments by Carse and Edwards in Chapter 2.1, page 16). The perceived lack of importance of its function in addition, contributed to inhibit development and opportunities. In my research I have explored this resistance to change and the cultural stereotyping surrounding the instrument in an effort to de-mystify and clarify its role and increase awareness and acceptance of the potential of “this noble but misunderstood instrument” (Turetzky, 2003:65).

1.3 Personal ecology

I have been a student of music for 35 years and a professional bassist for the last 24 of those years. Perhaps I was born to be a bass player. One might say I’m ‘addicted to bass.’ It is a daily ritual to play the bass and I am unable to imagine a time where I won’t enjoy playing it. A defining moment came at age 3 in 1964 when singing “yeah, yeah, yeah” along with The Beatles *She Loves You* (John Lennon & Paul McCartney) on black and white television. With tennis racquet in hand substituting

for guitar my mother said, “You’re holding the racquet left-handed like Paul McCartney”. At the age of 9 years I began playing tuba and euphonium in a brass band, at 15 years the electric bass guitar and saxophone, and acoustic bass at 32 years. From the age of 20 I began working professionally as a bass guitarist in a variety of bands playing in pubs, clubs and backing local and international artists. Soon television, session work and music theatre followed. I estimate I have performed over 8,000 engagements in addition to several thousand of hours practicing and rehearsing. I have been absorbed in and surrounded by the culture of bass for 35 years.

1.4 Project aim

The role of the bass carries an equal responsibility for providing a bridge between rhythm and harmony, its core function, which follows the conventional rules of western harmony. The bass note defines the chord – without it the harmony has nothing on which to stand. It is the “only instrument with a double mandate” (McDonough, 2003:47), but there is an opportunity to release the instrument from the musical and cultural stereotyping that restricts its freedom.

It is bassists themselves that have an obligation to educate listeners and musicians by creating opportunities via composition, research and performance of work where the bass is given a voice equal to, or leading other instruments in the ensemble. In my project I aim to explore the bass in a traditional support role, as an equal voice and as a leading voice in the ensemble. Through the process of composing new music, performance and written investigation of these issues, my intention is to provide an opportunity to expand the role of the bass and create greater awareness of the instruments function and potential.

Brian Bromberg (Bromberg, 2001:70), a virtuoso acoustic bassist and electric bass guitarist said:

In the new millennium the bass can have any role or function in music you choose. It doesn’t matter what you do or what style of music you play - just do it well. Follow your heart and practice, practice, practice!

In chapter one I have outlined my aims and discussed the background to, and ‘mystery’ surrounding the instrument and its function. The second chapter investigates the performance practice of the electric bass guitarist in historical context and gives special consideration to my performance practice as an electric bass guitarist undertaken at a professional level. I define the meaning of the word ‘bass’, examine cultural stereotyping and investigate the inspiration and motivation for the creation of the electric bass guitar. I clarify the terminology relating to bass instruments, discuss the influence of the ‘guitarist-as-bassist’ and investigate the expectations and limitations of the conventional roles of playing. I then continue by investigating playing techniques and conclude with a review of key innovators of bass function, beginning with the traditional through to transitional roles of the instrument.

Chapter three investigates the instrument’s development, technology and the future. I begin with a discussion of the impact of electricity, touching on resistance to the instrument because of its ‘electronic’ nature. I explore Waksman’s (1999) interpretation of Jacques Attali’s discussion of *order* (the norm) and *noise* (subverting the norm), and conduct an experiment by sampling bass instruments and analyzing their waveforms. The chapter continues with an examination of the influence of technology on design and construction, from conception and development of the instrument, through to resolving problems and helping bassists to realize their sound through amplification. The future of the instrument is examined and the chapter concludes with a discussion of the critical role played by the ‘bassist-as-composer’.

Chapter four discusses my compositions, arrangements and performance work over three recitals. I explore the electric bass guitar in roles from traditional to transitional, where the bass is liberated to play any musical part in a solo and/or ensemble context. I will discuss my work in detail, emphasizing the research and creative process undertaken and describe the influence of other significant bassists and composers on this process. Chapter five will summarize my investigations and suggest future directions for research.

Chapter 2
Historical Performance
Practice

Chapter 2: Historical Performance Practice

In this chapter I investigate the performance practice of the electric bass guitarist in an historical context. I examine the definition of the word ‘bass’, discovering that it acquired two cognates as early as the Sixteenth Century. I look at the culture surrounding the bass and its players, identifying important elements of feminist culture within. I clarify the current terminology relating to bass instruments and investigate the inspiration and motivation for the creation of the electric bass guitar. The largely unrecognized influence of the ‘guitarist-as-bassist’ is then examined. I discuss the conventional roles of playing, the development of playing techniques and conclude by examining the contribution of stylistic innovators to the bass oeuvre, from the traditional role (the norm) defined early in the Twentieth Century through to transitional styles (subverting the norm) that evolved through the century to contemporary bass innovators.

2.1 What is Bass?

The musical function of the bass has a dual role and similarly, the word ‘bass’ has been ascribed a dual meaning. Common ground is found with both ‘base’ and ‘bass’. *The Oxford English Dictionary* describes ‘base’ as “that on which anything stands or depends, supports, bottom, foundation, principle, groundwork, starting point” (Simpson & Weiner, ed., 1989:977). The word ‘bass’ is described as “deep-sounding, the lowest part in harmonized music” (Simpson & Weiner, ed., 1989:988-989). In harmonic terms ‘bass’ provides a musical function incorporating elements of the word ‘base’. *The New Grove Dictionary of Music and Musicians* defines ‘bass’ as

the lower part of the musical system, as distinguished from the treble, specifically: that part or voice in a composition executed by the lowest-range performers (‘bass part’); the lowest pitch in a sonority; hence the succession of lowest notes in a passage or composition (‘bass line’); the lowest segment of an instrument’s range, or the lowest octave or octaves articulated in a composition (‘bass register’); and those notes which ‘support’ the other parts, which determine the harmonic identity of sonorities and which are in the main responsible for harmonic progressions, cadences, modulations and large-scale tonal relationships (‘harmonic’, ‘functional’ or ‘musical’ bass). These distinct

but overlapping meanings are all usually simply called ‘bass’ (Sadie, ed., 2001:849).

In the written and spoken language of music the term bass has not been in use for as long as one might expect. The term first appeared in the middle of the Fifteenth Century when composers began to expand from three to four part textures. Two contra-tenor parts were written, the lower of the two given the name contra tenor bassus. Bassus itself is a Late Latin term meaning low, thick or fat, and ‘base’ and ‘bass’ are derivatives of the word (Sadie, ed., 2001:849).

By 1500 ‘Bassus’ alone was used as a noun, meaning the lowest part in a composition. In this new sense it rapidly acquired two cognates, one material, the other figurative: the nouns ‘base’ (‘lowest or supporting part’) and ‘basis’ (‘main constituent’ or ‘fundamental principle’) (Sadie, ed., 2001:849).

As a new definition evolved,

soon afterwards the term acquired philosophical legitimacy through the humanistic conceit of comparing the four human voice ranges with the four elements, as in Zarlino’s *Le institutioni harmoniche* of 1558 (trans. Marco and Palisca, 179): “As the earth is the foundation of the other elements, the bass (*Basso*)... is the foundation of the harmony... as if to say the base (*Basa*) and sustenance of the other parts. If ... the element of earth were lacking, what ruin and waste would result! Similarly a composition without a bass would be full of confusion and dissonance” (Sadie ed., 2001:849).

Given that the previous definitions are derived from the middle of the Fifteenth Century in Europe, it is relevant to compare how these definitions relate in Twentieth Century Australia. Discussions with colleagues and friends Cameron Undy⁴, Bruce Cale⁵ and Sandy Evans⁶ resulted in the following responses to the question “What is bass?” For Cameron Undy - “(the bass is) the fundamental sound, grounding... the

⁴ Cameron Undy is a leading acoustic and electric bassist who performs with many of Australia’s leading jazz and contemporary improvising groups.

⁵ Bruce Cale, bassist and composer was a member of the Bryce Rohde Quartet, one of the seminal groups in the history of Australian jazz in the early 1960s. He moved to the U.K. and then U.S. where he performed and recorded with artists including Phil Woods, John Handy, Zoot Simms, Ernie Watts, Toshiko Akiyoshi and Mike Nock.

⁶ Saxophonist Sandy Evans is acknowledged as one of the leading performers and composers in contemporary jazz in Australia. She received the inaugural Bell Award for Australian Jazz Musician of the Year in 2003.

earth element in the music for me.... the bass, the basis!” (conversation, Undy: 1999); for Bruce Cale - “The foundation.... the bottom contrapuntal sound.... a strong voice.... the bass line can affect the music totally” (conversation, Cale: 1999); and for Sandy Evans - “The earth.... the roots of a chord.... bottom frequencies.... the root of a band.... the carpet on which everything is laid” (conversation, Evans: 1999).

Rock musician Sting describes the bass as

the ground of all harmony, the root, the foundation of all musical structure. Because the bass is the secret heart of the music: aggressively male, achingly female, dynamic yet tender, it attracts men and women of quiet strength, those who understand the true spiritual power of music (Black & Molinaro, 2001:2).

The adjectives used to describe the function of ‘bass’ have changed little in nearly five hundred years. If one examines the additional meaning(s) used to describe the word bass in the *New Grove Dictionary of Music and Musicians* and *The Oxford English Dictionary* one discovers adjectives that reveal a subtext of negative connotations. This I suggest may explain on a subliminal level, why we may perceive the role of bass in ways other than a noble, positive or influential force.

Consider the following; the word ‘bass’ “is cognate with the adjective ‘base’ (‘low’, ‘unrefined’), both deriving from Late Latin ‘bassus’ (‘low’, ‘thick’, ‘fat’)” (Sadie, ed., 2001:849). *The Oxford English Dictionary* defines ‘low’ as “of humble rank, not placed high, lacking in vigour, degraded or vulgar, think little of,” ‘thick’ as “deficient in clearness” and ‘fat’ as “thick or solid”. ‘Base’ is described as “morally low, mean, ignoble, despicable, not pure, of inferior value” (Simpson & Weiner, ed., 1989:977). These are false cognates relative to the musical usage of bass, but nevertheless I suggest elements of these meanings may have attached themselves to our subconscious to some degree.

This subtext is reinforced by historically based evidence that perpetuates the notion of inferiority in the practical application of bass function.

In general, judging by the comments of eighteenth-century writers, the standard of the average double bass player committed him to the ranks of the ‘gentlemen’ rather than the ‘players’ and even then he had to learn certain

dodges which enabled him not to get left behind by the rest of the orchestra (Edwards, 1974:97).

Edwards regarded the circumstances relating to bass as “the viola problem all over again” (Edwards, 1974:97) and recounted Adam Carse’s comments, “composers wrote poor parts for the viola because the instrument was not well played, and it was not well played because composers wrote such poor parts for it” (Edwards, 1974:87). Carse translated a treatise by Quantz (1752) who observed that

Players of the double bass were the musicians who did not have enough ability to play any other instrument properly. Not only did they play so badly out of tune that he suggested they should tie gut frets around the neck and finger-board as on the violone, but because they so habitually fell so badly out of time they were enjoined to simplify their parts in rapid passages by missing out alternate notes, or to take a selection of notes which they could play in tempo from the given part (Edwards, 1974:97).

These problematic performance issues hindered the developing culture of bass playing and helped to reinforce negative stereotyping of both the instrument and its players. Unfortunately this negative stereotyping continues to exist.

2.2 Cultural stereotyping

Roy C. Brewer recounts evidence of ongoing negative stereotyping of the acoustic bass in the Twentieth Century.

The relatively simple harmonic structures of early hillbilly compositions allowed the bassist (dressed in vaudevillian clown clothes, complete with front tooth blacked out) to supply comic relief during performances. Certainly in some way this stereotyped role was spurred on or at least enhanced by the mere presence of the antique-looking and physically awkward acoustic bass (Brewer, 2003:351).

Bill Haley & The Comets bassist Marshall Lytle would wrestle on stage with his acoustic bass, leaning it at a 45 ° angle while standing on it, or lay on his back supporting the bass on his legs while still plucking. While this added to the entertainment value of the performance, this probably reinforced the notion of the bass as a novelty instrument. However with the introduction of the electric bass guitar, at least visually, perceptions began to change.

It's no coincidence then that with the loss of the upright's visual reminder of musical heritage, the bass player's purpose in the ensemble and role on stage changed as the electric bass became more commonly used. The compact properties of the electric bass allowed the player new flexibility in the creative and performance process. Instead of being limited to extra duties as a comic rube, which were more visual than aural, the new volume and clarity of the electric bass allowed bassists musical and physical freedoms (Malone in Brewer, 2003:351).

Traditionally from the 1950s through to today, it was and is not uncommon for the weakest guitarist of a group of musicians wanting to form a band, to be 'relegated' to the role of bassist. This is because the bass is presumed to be an easier instrument to play. The transition from electric guitar to electric bass guitar is easy physically because both instruments have a fretted fingerboard and are similarly tuned and it is perceived that the weaker musician will be able to create a simple bass part given that only one note at a time is required to be played.

Some double-bass players figured that anything with frets was somehow 'cheating' and not worthy of their consideration. Guitarists also began to gain the impression that as the bass guitar had fewer strings it must therefore be an instrument for second-rate musicians. This was the beginning of a stigma that was to last for sometime (Bacon & Moorhouse, 1995:16).

The stigma remains.

Within popular music there are well-documented situations where the role of the bass has been undervalued. Perhaps the most famous example is found with the Beatles; the outcome ultimately having a positive influence of the profile of a much-maligned instrument. An early incarnation of the Beatles, pre-Hamburg (John Lennon, Paul McCartney, George Harrison and Pete Best) didn't have a bassist and they recognised that to get professional work the group would require one. Lennon's close friend from art school, Stuart Sutcliffe had won £75 in a painting competition. He had no musical training or real aptitude, but was convinced by Lennon and the other Beatles to buy a bass with the prize money and join the band immediately. From all reports Sutcliffe was woeful and many photographs of the period show him standing at the rear on the stage, with his back to the audience to hide his embarrassment at not knowing the

correct notes. He was with the group for about two years as they went back and forth between Liverpool and Hamburg several times. Sutcliffe finally quit to stay in Hamburg with his German fiancée, Astrid Kirscher. Paul McCartney was assigned the role of Sutcliffe's replacement on bass somewhat reluctantly. He recalls:

None of us wanted to be the bass player, it wasn't the number one job: we wanted to be upfront. In our minds it was the fat guy in the group nearly always played the bass, and stood at the back. None of us wanted that, we wanted to be upfront singing, looking good, to pull the birds (Bacon & Moorhouse, 1995:31).

McCartney in fact had a very developed sense of the bass role and immediately made a difference to the group sound. Initially he was a player of functional root-fifth and triadic lines but soon developed a highly original and innovative melodic style of playing that was to become highly influential through the 1960s and beyond. McCartney's melodic style alerted many musicians to the fact that the bass had more to offer pop music than they could previously have imagined.

In contemporary popular culture the negative perception continues to be reinforced. In April 2004 during a GTV 9 broadcast of *The Footy Show*, Melbourne football club player Russell Robertson in the course of an interview discussed a rock band he had formed among the player group. Team captain David Neitz was rhythm guitarist, but Robertson claimed he was so bad they 'demoted' him to bass guitar. Again the Eighteenth Century stereotype prevails.

The view of bass as "that quintessentially inside instrument that remains a mystery to most listeners and, perhaps, to many critics" (McDonough, 2003:47) can partly be attributed to the fact that bassists as a collective, by nature are often not self-promoters. *DownBeat* magazine posthumously inducted acoustic bassist Ray Brown into their Hall of Fame in December 2003. Of the total number of 100 inductees since 1952, only 4 are bassists (Charles Mingus: 1971, Jaco Pastorius: 1988, Milt Hinton: 2001 and Ray Brown: 2003), three receiving acknowledgement posthumously and only one, Pastorius, an electric bassist. McDonough said in his tribute to Ray Brown, "This compares with eight drummers, 18 pianists and more horns than you could pluck an E string at" (McDonough, 2003:47). This is most revealing when one

considers that bass function has been omnipresent in Western music since the Fifteenth Century and in popular music since the early Twentieth Century – and only rated a representation of *four percent* in the *DownBeat* Hall of Fame. In addition it is interesting to note the inaugural publication dates for the largest selling periodicals dedicated to rhythm section instruments. *Guitar Player* magazine began publication in 1967, *Modern Drummer* followed in 1977, but *Bass Player* magazine did not begin until 1988, even then as a single issue (again in 1989), three issues in 1990, eight from 1991-1995 and finally a monthly periodical in 1996.

In his article, ‘In Praise of Pluck’ Mike Zwerin said:

Any bass player has to be a bit of a masochist. Who else would take the immense trouble to master this difficult instrument intended only for background? Bass players are even proud to lug their clumsy mutant violins around. They like it that most people don't understand their critical role in bridging rhythm, melody and harmony. That's the way they are (Zwerin, 1999:283).

In the same article Christian McBride said “Our job is to play deep, strong notes to make everybody else sound good. We have to be strong and humble at the same time” (McBride in Zwerin, 1999:283).

It is interesting to examine a few jokes that relate to the culture of bass playing and consider the underlying meanings contained within. Coincidentally the respective articles by Zwerin and McDonough each begin with a joke about bass.

(1) There is a joke about an estranged couple who have not spoken one word to each other for five years. They consult a marriage counselor, who, when all else fails, pulls a bull fiddle out of the closet and starts to play. Immediately, the non-communicating man and wife start an animated conversation (Zwerin, 1999:283).

(2) A man is on a safari through the most dangerous jungles of Africa and hears nothing but distant drumming all day and night. “What does it mean,” he asks a native guide, whose ominous reply is only: “Drums play, good; drums stop, bad.” The second day, the drums drone on. Again, the man asks what they mean. Again the wise but inscrutable guide says only, “Drums play, good; drums stop, bad.” Finally on the third afternoon the drums stop. The man runs to the guide fearing what’s about to befall the caravan. “You’ve been

telling me for two days, ‘drums play, good: drums stop, bad.’ The drums just stopped. What’s going to happen now?” “Bass solo” (McDonough, 2003:47).

While these are *jokes* and there are many more about the bass and *all* musical instruments, the humour could be interpreted as a reflection of the underlying values and perceptions held with regard to the bass, and its function. If one takes the previous jokes literally the implication is that (1) listening to a bass is so boring one would do anything to avoid having to listen and (2), bass solos are to be avoided at all costs.

The feminist role in bass culture

An interesting benefit of the perceived ‘undesirability’ of the bass role is that it creates a greater demand for bass players, which in turn means increased employment opportunities for those who play the instrument well. In addition this has also provided an opportunity for more women to take up the role of bass player. Mary Ann Clawson identified an increasing number of women bassists amongst the alternative rock movement, focusing her study on ‘Rumble,’ an annual band competition held in Boston, Massachusetts since 1979. Of 19 women respondents to her survey from 11 bands, 7 of those 11 bands (representing 63%) had women bassists.

The movement of women into the occupation of rock musician, and their increasing location within a particular instrumental specialty, may be seen as a specification of Reskin and Roos’s (1990) queuing theory of occupational sex segregation. They argue that women are most likely to make inroads into occupations that experience a shortage of “suitable” male workers.... Rather than pushing men out, women gain access to jobs that men have already begun to abandon (Clawson, 1999:198).

This represented a far greater participation from women on bass than other instruments. Clawson reported, “Many of the Rumble respondents, both men and women, were aware of, and spontaneously mentioned, this trend. “Most women,” noted Sean Gordon, “if they play anything, play bass” (Clawson, 1999:198)

Men appear to favour instruments (guitar and drums in particular) that conventionally allow greater musical and/or physical expression. They perceive bass as offering less opportunity to express themselves.

Carol Kaye⁷ was predominantly a studio bassist in the 60s and 70s. Her low public profile assured that only industry insiders were aware of the important contribution she was making towards feminist equality. Lynne Davis, a freelance Los Angeles session veteran and educator had this to say on the significant contribution Kaye made towards increasing awareness and alleviating sexism and prejudice:

A few decades ago, thousands of years of paternal dominance got shot to hell by one woman in a leopard catsuit with a flatpick and a Fender bass. How did this happen? It's called the free market, and it's the only place an artistic talent can seek its own level within our society. If you have the product - that is, the sound, the feel, the *thing* - then you have a gig. Carol Kaye had just that thing, and she deserves to take her rightful place not only as the first woman to break into the upper echelon of the recording industry, but as one of the most recorded bassists of all time (Davis, 2004:96).

Tina Weymouth was perhaps the first bassist to draw women's attention to the instrument in rock from 1977 via her prominent role in the group *Talking Heads*. Gail-Ann Dorsey began to make a name for herself from 1984 in the studio and live with artists including *The The*, *Boy George*, *Tears For Fears* and most recently *David Bowie* in addition to a career as a solo artist. Rhonda Smith currently is recording and touring with *Prince*. Kim Gordon from *Sonic Youth*, Kim Deal from the *Pixies* and the *Breeders*, Melissa Auf der Mar from *Hole* and Janis Tanaka from *Fireball Ministry* each have a high profile in the alternative rock scene. MeShell NdegèOcello is a solo artist in addition to having a studio career playing for artists including the *Rolling Stones*, *Vanessa Williams*, *Chaka Khan*, *Madonna* and *John Mellencamp*. Lynne Davis and each of these women have had one or more featured articles in *Bass Player* magazine and Kim Deal was featured artist on the cover in November 2004.

While rock music is comprehensively considered a male domain increasingly females have made their presence felt in the music through the electric bass guitar.

⁷ Carol Kaye is a veteran of over 10,000 sessions recording hits for the Beach Boys, The Monkees, Glen Campbell and Quincy Jones, to name a few. Television and films include Mission Impossible, MASH and The Brady Bunch. Go to www.carolkaye.com/www/library/index for an extensive overview of Kaye's career.

Given the prior accounts confirming the critical dual responsibility the instrument carries it is difficult to comprehend why the bass is not considered as desirable or attractive as other instruments. The ‘dumbing down’ of the role of bass is contrary to the significant musical function it is assigned. By appointing the least musically equipped person to fulfill perhaps the most critical role in the band is to invite problems. The consequences are dire for the success of the ensemble, which will be undermined and compromised by having inadequate support for rhythm, harmony and melody. John Hoyle said in 1770 “the bass is the foundation of Harmony; for which reason it is a maxim among musicians, that where the Bass is good the harmony is seldom bad” (Edwards, 1997:59). The adage “a band is only as good as its weakest member” has never been more appropriate in discussing the roles and responsibilities of a bassist.

Bass terminology

The tuba was referred to as the ‘brass bass’ early in the Twentieth Century and correspondingly the double bass was referred to as the ‘string bass’. With the introduction of the electric bass guitar, the string bass additionally acquired the terms ‘acoustic bass’ and ‘upright bass’ to distinguish itself from the electric bass guitar, which was both electric and played horizontally. There has been discussion and indeed some confusion over terminology: whether the correct term for a solid body electric bass instrument should be referred to as an electric bass or electric bass guitar. Its designers always intended that the instrument should be a replacement for the acoustic bass and its musical function. However replacing the word electric for acoustic does not resolve the issue of terminology. The two key elements that define the correct term ‘electric bass guitar’ are (1) the instrument is played horizontally and (2) its fingerboard has frets, elements in common with the guitar family. In contrast the acoustic bass is played vertically and has no frets on the fingerboard. Anthony Jackson is a pioneer of what he refers to as the ‘contrabass’ guitar; a 6-string electric bass guitar tuned a fourth below and a fourth above conventional bass tuning (i.e. B, E, A, D, G & C). Jackson’s thoughts were clearly outlined in his comment:

When I first started to play, most of the older musicians I met were adamant in calling the bass guitar just a Fender or electric bass, and they treated it as a

poor man's upright. But I consider it to be exactly what it is: a bass guitar (Mulhern, 1993:22).

The phrase 'Fender bass' became the generic term used by musicians in the 1960s to describe any brand of electric bass guitar, the words appearing on musical arrangements or charts for recording sessions, concerts and gigs. The term is still used by musicians from that period, although has fallen out of usage amongst the younger generations of musicians. I have encountered the phrase many times in the past, either reading stock arrangements from the U.S. for big bands and concert bands or when playing for visiting U. S. artists. From 1965 the Los Angeles Musicians Union for several years listed players of the instrument under the category of 'Fender Bass' to distinguish electric players from acoustic bassists.

2.3 Inspiration and Motivation

The acoustic bass became the popular bass instrument of choice by the mid-1920s, having superseded the tuba in jazz groups and dance bands. This choice of instrument was problematic for bassists. The acoustic bass is a fragile instrument, susceptible to damage and cumbersome to transport. It was difficult for a musician to move around on stage and get close to a microphone, hence the bass player was often relegated to stand to the side or rear of a band. Most significant was its low volume and lack of projection. Its design was based on the premise that it should primarily be bowed (*arco*). Plucking (*pizzicato*) was a secondary function and paradoxically as *pizzicato* became the predominant technique in jazz and popular music, bands were increasing in size and volume, culminating in the big band ensemble form, where a bass had to compete to be heard against a line up of four trumpets, four trombones, five saxophones, a piano, a drum kit and often a guitar.

Instrument makers recognised these problems in the 1930s and focused on developing a bass instrument that would meet the dual objective of increased volume and reduced size. Both Gibson and Regal produced instruments that were essentially oversized acoustic bass guitars with endpins, played in the vertical position. This did not solve the issue of size. Although the Gibson instrument included a pick up, both instruments were approximately five feet tall (not including endpin). Gibson engineer Lloyd Loar

is credited as being the first person to conceive of the idea of an instrument with a reduced body size (with no acoustic properties) and increased volume purely by use of electrical amplification. “In 1924 Loar reportedly built a prototype of a ‘stick’ bass that was, in concept at least, quite similar to the electric upright basses of today. The pickup was an electrostatic transducer mounted in a Bakelite box under the bridge” (Roberts, 2001:24)⁸. These electric upright basses were essentially an extended acoustic bass neck supported by a stand or endpin with a pickup for amplification, as the instrument had no acoustic chamber to resonate and naturally amplify sound.

Roberts reported that steel guitar maker Paul H. Tutmarc also developed an electric upright bass in the early 1930s. Tutmarc is acknowledged as the first maker to develop the idea of a horizontally played electric bass guitar (in 1935) with a shorter scale neck to that of an acoustic bass, and most importantly, the inclusion of frets on the neck. The various electric uprights and Tutmarc’s new horizontal electric bass guitar made little or no impact with sales. Amplifiers and speakers during this time had neither the power nor frequency range required to accurately reproduce a quality bass tone. There was an understandable hiatus in instrument development, caused by the start of World War II. Post-war, economic rationalization had an impact socially and culturally and further development continued to be thwarted. However changes were occurring in music. The popularity of big bands waned and smaller dance bands with vocalists, a few horn players and rhythm sections utilizing electric guitars gained in popularity.

It was not until 1950 that the idea of an electric bass guitar was again seriously pursued. It was Leo Fender who became the designer to realize the ultimate template for other luthiers to follow. Fender primarily had ease of use, portability and increased volume and presence on stage and in the studio in mind for acoustic bassists. An additional and critical point in the development of the instrument was Fenders identification of the increasing demand for guitarists to double on acoustic bass. This may have been the primary reason why he ignored the earlier attempts of designers to build an electric upright bass. He followed the path set by Tutmarc of a horizontal,

⁸ Rickenbacker (Electro Bass-Viol), Regal (Electrified Double Bass) and Vega (Electric Bass Viol) each developed instruments that became known as electric ‘upright’ basses around the same period.

rather than vertical bass instrument. When Forrest White⁹ asked Leo Fender what his inspiration and motivation for designing an electric bass was, Fender replied:

There was a need for such an instrument. In the forties and fifties there were many guitar players who played in bands who would switch over and play the upright bass. The big ‘dog-house’ was a heck of a thing to try and haul around. It really caused a problem if the upright bass player had to get to a microphone to sing. The need was for a portable bass with frets that could be heard over the band. If the bass had frets, then the player would not have to listen to see if he was on pitch (White, 1994:51).

2.4 Guitarist-as-bassist

Leo Fender’s design had unwittingly introduced a significant dynamic to the evolution of bass playing in contemporary music, that of guitarists doubling on bass: the guitarist-as-bassist. He became aware of the trend of guitarists swapping over to bass. Richard R. Smith commented:

As dance bands downsized in the late 1940s, some (guitar) players lost work because they could not double on stand-up bass. According to Leo, they came complaining to him because they did not want to take the time to learn upright technique. They needed a bass that could play like a guitar - a fretted bass (Roberts, 2001:31).

Frets would insure precise intonation, so the hours of practice required developing sufficient technique to play an acoustic bass in tune would no longer be an issue. The vertically held electric upright bass, whose fingerboard dimensions remained the same as the acoustic bass, was too difficult a prospect to consider as a doubling option. The physical challenge of producing a good intonation and sound, even with amplification remained. Without an alternative, guitar players would have resisted the challenge of the ‘dog-house’ and other musicians interested in bass discouraged as well.

Fender became determined to resolve the problem. He had successfully introduced the *Broadcaster* solid-body electric guitar (1948) with a bolt-on neck (later re-named *Telecaster*). The design solution for a bass was comparatively simple: with some experimentation and modification in relation to scale length and balance, Fender

⁹ Fender Electric Instrument Company’s former Vice President and General Manager.

simply created an exploded diagram of the Broadcaster design to come up with the prototype bass in 1950. The Fender trademark name *Precision Bass* was used to describe the precise intonation the fretted fingerboard offered to bassist and guitarists, who in particular, were now encouraged to double on the instrument. When Forrest White asked Fender how he came up with the name, Leo replied, “It was simple. If a player noted (played) the right fret, the tone was right on - a precision result” (White, 1994:52).

The first basses rolled off the production line in October 1951. Acceptance was initially slow and there were problems to resolve with strings, pickups and amplification. But by the end of the 1950s the Fender bass had supplanted the acoustic bass in most styles of popular music, with the exception of jazz and blue grass. Had the electric upright bass secured a foothold amongst bassists in the 1930s and 1940s, the problem of portability and volume would have been resolved. Consequently there would be no demand for instrument makers to develop a horizontally played electric bass guitar. There may have been no demand from musicians to double on bass. Guitarists may well have given up the struggle to make the transition to an entirely different technique and remained guitarists. The evolution of bass function in popular music may have taken another direction.

Other manufacturers quickly added electric bass guitars to their range of instruments. First was Kay in 1952, Gibson in 1953 and Rickenbacker in 1957. Kay’s promotional material stated:

It’s held like a guitar, looks like a guitar...and is played like a guitar. BUT the pitch, range and tone quality are the same as the big bass viol. Easy to finger, easy to master, particularly for the guitar player. Actual bass pitch (Bacon & Moorhouse, 1995:16).

There is no evidence to suggest that designers and manufacturers had in mind to change the way bassists approach their role and function as a result of their ingenuity. Nor could they predict the changes about to occur in the sound of popular music as a result of their endeavors. They were responding to the needs and demands of musicians and were focused on resolving the problematic issues encountered by

bassists. They would have been satisfied to know bassist could be heard more clearly and that their transport problems would be significantly reduced.

Bassists have constantly inspired and driven makers to produce new, different and exciting instrumental variations - from extra low-tuned strings to fretless fingerboards - that in turn have stimulated fresh musical routes and diversions. Modern music would sound completely different had it not been for this remarkable musical tool, the most subversive new instrument of the 20th Century (Bacon & Moorhouse, 1995:4).

Quincy Jones, a respected musician, arranger and producer equally at home within jazz and pop genres since the 1950s said of the impact of the electric bass guitar on popular music and jazz:

It really changed the sound of music because it ate up so much space. Its sound was imposing in comparison to the upright bass, so it couldn't have the same function. You couldn't just have it playing 4/4 lines (walking bass) because it had too much personality. Before the electric bass and the electric guitar, the rhythm section was the support section, backing up the horns and the piano. But when they were introduced, everything upstairs had to take a back seat. The rhythm section became the stars. All because of this technological development. The old style didn't work anymore and it created a new language" (Roberts, 2001:48).

For Marcus Miller, an electric bass innovator and session veteran since the late 70s, "the bass guitar was the instrument that let you know the 50s were over and music was going to some new places" (Roberts, 2001:12).

There were two distinct 'camps' of players who pioneered the use of the electric bass guitar in popular music. In one camp were acoustic bassists who were attracted to the electric instruments portability and/or sound. These musicians brought with them the traditions and expectations of bass function. They were content to play tonic to fifth patterns and walking style bass lines, staying within standard rhythmic and stylistic conventions that had become a template for bass lines of the time. For acoustic bassists, it was challenging to try to adapt their technique and many found the experience unrewarding, some ultimately rejecting the instrument. The second camp consisted mainly of guitarists, a few bassists who 'threw away the shackles' of bass convention, and other musicians who were excited by the sound of the new instrument and saw an opportunity to create more work for themselves. Generally these

musicians were not looking to replicate the same ingrained traditions and expectations of the 'real' bass players. As the four strings of the electric bass were tuned one octave below that of the first four strings found on the guitar, it meant that any guitarist, from amateur to professional could now easily pick up an electric bass and apply their fingerboard knowledge to the new instrument. Now unencumbered by the physical restrictions of the acoustic bass, they brought unconventional approaches to the electric instrument.

The conventional role of a guitarist was to incorporate any or all of the following: melody, countermelody, harmony and rhythm parts in a given arrangement of a popular tune. This background and these skills in turn liberated them to an extent where they felt more at ease investigating unconventional bass lines, employing greater use of countermelody, rhythm and exploring higher register playing. The simple act of plucking a string with a guitar pick, instead of a finger or thumb added an entirely different timbre to the bass oeuvre. This would have significance in terms of the types of bass lines that were to be played live and on studio recordings in the future. Increased volume was perhaps the biggest gain made. With improved amplification the bassist could match the volume of a drum kit, electric guitar, or horn section, if required. These were key factors in the change of the sound of popular music.

2.5 Conventional roles of bass playing: expectations and limitations

There are defined roles and responsibilities for a bassist to observe for popular music to function effectively. The bassist is required to adhere to the dictates and conventions of harmony. The primary functions are to underpin the harmony supplied by the chordal instruments (i.e. guitar and keyboards) that together support the melody and to consolidate the rhythmic structure with the drummer. It is expected that the bass player fulfill these roles. To divert from this essential function is to subvert the norm, the result being a potential undermining of the foundation, fabric and structure of the music. Consequently there are limitations imposed on how far a bassist can divert from the norm.

Sandy Evans is sympathetic with this view. She said:

A few years ago I came to the conclusion that the bass player, more than any other player, defines the sound of a group. It's subtle, but to do with where the beat is, whether it's a pushed feeling or a lazy feeling, the dynamic and the actual tone. All those things probably are defined more by the bass than any other instrument. It's this thing that is holding everything up and it seems incredibly important. (conversation, Evans:1999)

Both Sting and Paul McCartney are musicians who occupy a unique position in music, in that they are leading bassists, vocalists and composers in popular music. In addition when performing live, they have the added responsibility of providing both melody and bass line simultaneously. As composers they are well aware of the important role a bass line plays in the success of a composition. Sting explains how significant the dual role of foundation for harmonic and rhythmic development is:

It's easier for the bass player to lead the band than almost anyone else, because you can lead without seeming to. It's a very powerful yet very discreet instrument. You can control the music because you can dictate what the chord is - I mean, it's not a chord until the bass player decides what the root is. I can pull the rug out from under everybody when things aren't going right. No matter what the keyboard player and guitarist are doing, I can subvert the whole thing by changing the chord. I can also change the rhythmic feel of the song with the drummer. I manipulate these elements all the time (Garbarini, 1992:32).

Paul McCartney concurs:

I started to realize the power the bass player had within the band. Not vengeful power - it was just that you could actually control it. So even though the whole band is going along in A, you could stick in E, and they'd say: "Let us off the hook!" You're actually in control then - an amazing thing. So I sussed that and got particularly interested in playing the bass (Bacon, 1995:34).

It is also valuable to consider the comments of two high profile drummers on the subject of the dual role of bass. Peter Erskine¹⁰ says:

The bass player is the rhythmic and harmonic foundation in all rhythm section-based music, and the bassist's role is *extremely* important. They are the true timekeeper in any band. The drummer/bass player relationship is the

¹⁰ Jazz, fusion and studio drummer whose extensive credits include Weather Report and Steely Dan.

most important one in any ensemble. As such, a good bass player is a drummer's best friend! I rely on a bass player to not only listen to the drums, but to have their own compositional and contrapuntal sense of development and accompaniment. In plain English, if I play something across the rhythmic grain, I hope the bass player will stick with their bass line and not jump on my rhythmic variation. In this way, dynamic tension-and-release can take place" (Erskine in 'You new best friend,' Lanphier, 2003:12).

Teddy Campbell¹¹ said in his article:

When I meet somebody I can tell how they're going to play. If they're outgoing, their playing is going to be very expressive. If they're laid back, then their playing will take that approach. For me, it's 75 percent personality and 25 percent playing. You can be the baddest bass player in the world, but if you're an idiot, I don't want you. When I say, "Step out and give me a little fill," a lot of bass players think chops - they go lick crazy, and that's not it at all. If it's your gig and you're the featured soloist, that's cool. Otherwise, you're hired to play bass! Hold down the groove. Don't try to play guitar on the bass - I know a lot of lead bass players!" (Campbell in 'Idiot proof,' Lanphier, 2003: 12).

Both Erskine and Campbell have a clear idea of what they expect from a bass player. Phrases such as 'stick with their bass line' and 'hold down the groove' leave no room for doubt. But what of the bass player who wants to extend his or her playing beyond the fundamental role? Do all bassists characteristically want to subvert the norm? As Teddy Campbell suggests, this depends on the character and personality of the individual. If, as Sting puts it "because the bass is the secret heart of music.... it attracts men and women of quiet strength," (Black & Molinaro, 2001:2) one could say the stereotype of a strong, stoic, quiet, gentle person best fits the model of a good bassist. Those who follow the rules of harmony and guidelines set by prior bass role models will be following the norm, however it doesn't take much to stray from the path of a well-structured bass line. Rhythmic misplacement or incorrect notes are obvious flaws, but other factors including too many notes, notes that are either too long or too short, register either too high or too low or too much melodic development are all areas where any one element can unsettle or undermine the musical process. Reggie Scanlon of New Orleans roots rock group *The Radiators* said, "I rarely go past the 12th fret; if I wanted to go up there, I should have stayed as guitar player. If a drummer and a bass player provide a foundation for other people to do what they're

going to do, that *is* their solo” (Olwell, 2001:38). A person who may more readily enjoy vigorous expression in musical performance may be better suited to an instrument that allows for more opportunity to a greater expressive range (i.e. guitar or keyboard). A bassist must constantly monitor each of these elements and allow his/her musical taste and experience to ultimately be the best judge.

From personal experience and observations of professional peers I suggest that bassists generally fall into one of three categories, (1) the functional bassist, who restricts himself/herself to bass function exclusively and is interested only in exploring the conventional bass role within various styles of music. This bassist has little or no interest in soloing or improvisation, (2) the expressive bassist, who adheres to bass function as required, but has a strong interest in improvising and developing solo techniques, and (3) the virtuoso bassist, a true soloist with a highly developed technique who fulfils bass function when required but takes any opportunity for self-expression through improvisation and composition.

Given the previous comments and observations it is evident that bassists occupy a powerful position in an ensemble and are encumbered with a responsibility not to misuse the power entrusted to him/her. While the well-defined roles and responsibilities must be observed in order that the music be supported and sustained, it is a natural response for a creative bassist to desire to explore and express himself/herself outside the realm of standard function, beyond the limitations and expectations of others. The challenge is to achieve a balance where one can serve others and oneself for a positive and rewarding musical outcome.

2.6 Techniques

Playing techniques have evolved with the instrument and can be divided into two parts (left and right hand), one relating to the fret board and the other, to striking the strings. There is a wide range of timbres achievable when a variety of picking techniques are applied, but a sound fret board technique is essential for accurate playing. Anthony Jackson had this to say when discussing fret board technique:

¹¹ Drummer for Christina Aguilera, Backstreet Boys and Al Jarreau.

In the playing of the instrument, the bass guitar has more in common with the guitar than it has with the upright. True, the scale is longer than a standard guitar, but it's much shorter than an upright. And the way you hold the instrument is the same as the guitar. There's something to be gained from both areas of instruction, but the guitar has far more to offer (Mulhern, 1993:22).

One finger per fret

In my own practice I have found enormous benefit in applying standard guitar fret board technique, that is, utilizing all four fingers on the fret board as opposed to the traditional acoustic bass approach of using three fingers (1, 2 & 4) in lower positions. This was as a result of having lessons with a bass tutor who was primarily a classical guitarist. Jackson goes on to say:

I don't see much point in half positions. I've found that it's impossible to play with far more fluidity using a technique that leans more towards orthodox guitar than orthodox upright. There is nothing I've heard or seen done on the upright bass that cannot be played as well or better on the bass guitar with guitar technique, which is as it should be (Mulhern, 1993:22).

Observing electric bass guitar virtuosi will reveal most, if not all, subscribe to this fret board approach. Jaco Pastorius was a major innovator of technique and tone. In his instructional book with accompanying video he emphasizes "one finger per fret" (Pastorius, 1985:4) when discussing finger spacing. There are various models or approaches to technique one normally associates with traditional teaching methods of the violin or piano because the instruments, and their respective teaching methods have had considerable time to evolve. The electric bass guitar has been in existence for just over fifty years and consequently not enough time has elapsed for a definitive technique to evolve. Rich Appleman¹² says in the forward to his book "I use fingers one, two, three and four on the fingerboard and many extension fingerings (i.e., stretching more than one fret between each finger). Remember, these are suggested fingerings only.... there is no ultimate, secret fingering/position" (Appleman & Viola, 1981:3-4).

¹² Chair - Bass Department at Berklee College, U.S.A.

There are bassists, often self-taught rock musicians, who have not had the benefit of this advice. These players often wear their instruments at waist level or below and consequently cannot get their wrists around and underneath the neck of the instrument. They tend to rest the thumb over the top of the bass neck and play using only two or three fingers on the fret board. While there is no doubt it is possible to still perform accurate and creative bass lines with this method, it nevertheless limits the potential to be more creative and agile through the physical restrictions this approach places on their technique.

Standard finger-style plucking

The plucking hand offers many variants that allow for a range of tones. Alternating index and middle fingers over the strings for plucking has become the standard approach for many bassists, although Leo Fender initially had in mind that bassists would strike the strings with a down stroke of their thumb and built a rest below the G string on the Precision bass to anchor index and middle fingers to. Fender's approach did not take hold and bassists often moved the rest to relocate it above the E string, becoming a thumb rest in order for the player to use index and middle fingers. Fender (the company) finally officially moved the rest into the thumb position in 1974.

Multi-finger plucking

John Entwistle from British rock band, The Who, developed a plucking technique utilizing all four fingers of his right hand. This allowed him to stretch the bounds of what was thought possible for a bassist in pop music in the 1960s. His techniques include:

Standard fingerstyle and pick playing, a technique he calls crab-claws, backhanded chords, string pops and smacks, harmonics and left hand hammer-ons. Then there's his impressive 'typewriter technique', a forerunner of today's tapping, in which he strikes the strings at the base of neck with his four right-hand fingertips in quick, type-writer motions, enabling him to play rapid triplets and various other drum-like devices (Jisi, 1996:52).

Los Angeles studio bassist Abraham Laboriel, who originally studied classical and flamenco styles on guitar, adopted a five-finger technique for effect in the 1970s, adding another approach to the growing repertoire of electric bass guitar techniques.

Slap technique

The ‘slap’ technique that came to prominence in the early 1970s typically involved striking E and A strings with the thumb on down beats and snapping the D or G string with index finger added a highly percussive timbre to the bass oeuvre. Interestingly ‘slapping’ the bass was not new. Many acoustic bassists in jazz including Wellman Braud (with Duke Ellington from 1927-35) and Milt Hinton (with Cab Calloway and Lionel Hampton from the mid-1930s) as well as many early rock and roll bassists slapped for percussive effect and also to project their sound. More recently the revival of rockabilly music in the 1980s, in particular the group *The Stray Cats* who featured bassist, Lee Rocker, saw young acoustic bassists explore this approach). The attack generated by this technique helped bring attention to bass lines through the prominence of the bass sound within the context of the ensemble. Larry Graham from *Graham Central Station* is credited as the first bassist to develop this style on electric bass guitar. Louis Johnson from the *Brothers Johnson* refined the technique further by developing highly sophisticated rhythmic patterns.

Hammering and tapping

The most recent alternative technique developed for the bass is referred to as ‘hammering and tapping’. This style involves both hands. The fingers of the fret board hand ‘hammer’ down onto the fret board to produce a note (usually on the lower E and A strings) while the fingers of the plucking hand ‘tap’ on the D and G strings in the upper register of the fret board simultaneously, producing a chord. I applied this technique during my performance of *Frederick St.* in recital 3 (see score Appendix 1 page 147, CD Appendix 3 track 13 and DVD Appendix 4 36:55). The bass line was hammered and chord progression outlined by tapping (see Example A).

Example A: Bass line from *Frederick St.* (David Stratton)

LATIN $\text{♩} = 88$

The musical score is written in 4/4 time with a tempo of 88 beats per minute, marked 'LATIN'. It consists of two systems of music. The first system has two staves: a treble staff with chords and a bass staff with a bass line. The second system also has two staves: a treble staff with chords and a bass staff with a bass line. Chords are labeled as FΔ, G7, GMIN7, C7, and FΔ. A finger number '5' is written below the first note of the bass line in the second system.

This produced an accompaniment with a Latin feel for flute to play the melody, with drum kit supplying additional rhythm.

Pick technique

Many guitarist-as-bassist converts simply adapted their picking technique with a plectrum, rarely if at all using fingers to pluck. This was often evidence of their guitarist origins. A rare reverse example of this is Steve Swallow who was originally an acoustic bassist who swapped to the electric bass guitar in the late sixties, eventually selling his acoustic bass. He recalled:

Initially I played with my fingers, but my Gibson was an exceptionally muddy-sounding bass, and I was playing it through an Ampeg B-15, which is a beautifully round-sounding amplifier. I was having trouble getting sufficient clarity out of the Gibson, and I found that with the pick, I could. I was playing with Gary Burton's band, and Jerry Hahn, the guitar player, would often come by my room after the gig and say, "Hey, Swallow, let me try that thing." And he would pull out his pick and play about 10 times as fast and clear as I could possibly play. I think it was his goading that made me take up the pick, and after a while I stopped playing with fingers altogether (Birnbaum, 1997:26).

Swallow remains one of only a handful of electric bass guitarists to have found acceptance in straight-ahead¹³ jazz, and even more unusual was his adoption of the pick technique. Anthony Jackson said:

Steve Swallow is a very special case. He switched from the upright to the bass guitar because he also had a genuine love for the instrument. He went on to develop his own voice on it, despite blood-chilling cries of horror from the "jazz" community (Jisi, 1990:24-32).

Leading contemporary bassists including Victor Wooten, Stu Hamm, Michael Manring, Oteil Burbridge, Billy Sheehan and Matthew Garrison have such highly developed left and right hand techniques in all styles that they are able to combine any or all of the previous applications of finger style, pick, slap, hammer and tap and harmonics with relative ease. These musicians have opened up a new vocabulary for the electric bass guitar.

2.7 Innovators: from tradition to transition

Bassists are influenced, as are all musicians, by prior role models. A saxophonist only has to hear Charlie Parker or John Coltrane once to have their perception of the instruments potential altered. Similarly, bassists have been influenced by the innovators who preceded them, who have developed techniques and sounds, or constructed bass lines previously not thought of. One cannot help but respond to hearing these innovators in some way.

When the Fender Precision electric bass guitar was released in 1951 there was resistance to its acceptance amongst many acoustic bassists and that continues to this day. Ron Carter, on reflection said of his early experiences with the electric bass guitar, "Frankly I wasn't competitive, given the instruments new demands. I just wasn't good enough on it, and I didn't have the time to practice enough to become competitive" (Bergen, 2003:47). The instrument was viewed by acoustic bassists as being a poor man's bass, however as was one of Leo Fenders wishes, the electric bass was accepted readily by guitarists (guitarists-as-bassists) who could adapt with

relative ease and many began to double on the instrument. These musicians were responsible for the first of four significant innovations in the development of the instrument's sound and playing style. They would have a profound impact during the height of the Los Angeles pop music explosion of the 1960s when studio musicians, in particular Carol Kaye and Joe Osborne¹⁴ who were both originally guitarists, doubled on the electric bass guitar in the recording studios. Both Kaye and Osborne played with a pick, using a typical guitaristic approach. This not only produced an entirely new sound, but additionally a more melodic and rhythmically developed approach to the instrument. The acoustic bass had been the studio standard bass instrument since the 1930s after replacing the tuba in early dance and jazz bands from the early 1900s. The main Los Angeles studio bassists included jazz luminaries Red Callender (who also doubled on tuba), Ray Brown, Al McKibbon and also Lyle Ritz. Often two bassists, one acoustic and one electric (usually a Fender Precision) and from about 1960 a third bass instrument, a Danelectro 6-string electric bass guitar¹⁵ were booked to play sessions in order to achieve a bigger sound on record. This was referred to as *tic tac* bass, a style that had become popular in country music. These instruments all doubled the same part, the objective being to get greater bass presence on record. Hal Blaine explained how the situation worked using a typical situation for Lyle Ritz:

[He] had fallen into the position of having to play his upright in unison with a Fender because the engineers and producers found that the two basses played together created a much fatter sound, providing the perfect bottom for records. This was during the 2 and 4 track days, before overdubbing made it possible for one player to get that kind of fat sound (Blaine, 1990:64).

Ray Pohlman was one of the first musicians in Los Angeles to record with the Fender bass from about 1955. Pohlman was a studio guitarist who used a thumb down stroke to play the electric bass as well as a pick on occasion. By 1963 he became a musical director for a television show and subsequently moved away from fulltime session work.

¹³ Swing style or mainstream jazz incorporating a walking bass line.

¹⁴ Joe Osborn has recorded on many of the hits for Simon & Garfunkel, America, The Fifth Dimension, The Mamas & Papas, The Partridge Family, Neil Diamond, The Carpenters, The Byrds, The Monkees and Neil Young.

The electric bass sound had become popular with producers and engineers. The acoustic players, who somewhat reluctantly picked up the electric at the behest of their employers, brought nothing new stylistically to the instrument, playing with either a thumb for down stroke or standard acoustic bass finger style technique and playing within the conventions of standard bass lines. Carol Kaye was a bebop jazz guitarist who broke into the studio scene in 1958. Kaye became first call bass guitarist for producers including Phil Spector, Quincy Jones and Brian Wilson of *The Beach Boys*. When Ray Pohlman didn't arrive for a session at Capitol Records in 1963, Kaye picked up a Fender Precision and laid down the bass part with a pick. In her words:

I played with a pick and my sound accidentally put the other adjunct bassists out of work - unfortunately. It was more versatile; I could get a deep bass sound or add a bit of 'click' with a pick, enough to make it sound like a Dano (Danelectro) at times. That changed the whole thing. The producers started to figure, "Instead of three bassists, we can hire that one Fender player (Roberts, 2001:61).

In addition to the pick sound Kaye was innovative in her approach to syncopation. Rather than the conventional pop bass pattern of dotted crochet, quaver, minim Kaye introduced Latin influenced syncopation as a result of her jazz background.

You play a lot of Latin in the jazz that you played back in the 50s and I played in a Latin band and so I had a lot of Latin rhythms in my mind anyway and I heard the fact that if invent a Latin rhythm it makes the song sound better too. You know a lot of upbeats.... so I started to play that way and they (the producers) loved it because they didn't have to try to write it out or anything, and they couldn't. The only thing they could write for bass was boom, boo, boom (i.e. dotted crochet, quaver, minim), very simple stuff, if they wrote at all because most of the time we would have to sit and create the musical parts because they didn't know how to write for rock and roll, and you have a bunch of jazz guys there inventing lines just like we do in jazz, but for rock and roll and making it groove (conversation, Kaye:2002).

With Kaye's developed sense of jazz syncopation, harmony, melodic invention and sound, the electric bass guitar began to be heard and felt in a different light.

¹⁵ Tuned as a guitar (i.e. E, A, D, G, B & E) one octave below with light gauge strings and narrow string spacing.

Similarly Joe Osborne was one of two guitarists in a lounge band with no bassist in 1959 at the Showboat casino in Las Vegas. His co-guitarist Roy Buchanan borrowed a Fender Precision bass and they shared it for a while until Osborne decided he would like to take that role permanently. What was unique was his application of pick technique. Osborne recalls:

One night I would be on the guitar, the next I was on bass, so I just took the pick with me as I went back and forth. All the other bass men in town were picking with their fingers. The attitude was the bass should be felt and not heard. Now people were actually hearing my notes and not just the booming sensation that the other guys were sending out. I also found that I was blending better with the bass drum. All along we had been fighting for the same frequency range, and now I was cutting through and giving the bottom end a tonal, melodic quality (Mulhern, 1993:162).

David Perry draws a parallel between Osborne's developing bass style and that of pop music:

Back in the 50s, bass lines were either the dotted quarter/dotted quarter/quarter note style, or the four-to-the-bar walking bass left over from the Big Band era. When the electric bass came a long in the mid 50s everyone played it like the acoustic. That is everyone except guitar players like Joe who saw this new instrument as a deep-throated guitar rather than an electronic miniaturization of the acoustic bass (Mulhern, 1993:163).

Neil Diamond said of Osborne, "Joe has a very chordal style. He manages to work up bass lines that take you on a trip between chords. He is one of the most lyrical and melodic bass players I've ever worked with" (Mulhern, 1993:63). Producer Bones Howe said that Joe's greatest asset is that:

He is the only bass player in the business who knows how to cut through a tiny radio speaker. When a producer hires Joe, he can be comfortable in the knowledge that all those fantastic things he is laying down in the studio will survive mix down, plating, and stamping and still come charging through on the radio; and there's where you sell records (Mulhern, 1993:163).

Even greater attention for the instrument was to come from probably the most well known guitarist-as-bassist. Paul McCartney was perhaps the single most important musician to lift the profile of the electric bass guitar in the eyes of the public

internationally through his role in The Beatles. When the group began to command the attention of the worlds media in 1963 McCartney stood out for several reasons; he was a lead vocalist (a role shared with John Lennon) positioned up front of the band (the first bassist/vocalist of note to do so) as opposed to the background spot usually taken by other bassist. In addition he played an unusual looking instrument (a Hofner 500/1 violin bass) with a guitar pick and was left handed, again visually different. This drew the public's focus and people began to recognize that his role was not that of pop singer simply strumming an acoustic or electric guitar.

When one considers the chart success of The Beatles and combines that with the extensive successes of Kaye and Osborn (their recordings, in addition to the numerous television themes and film scores featuring their bass sound), it is easy to appreciate how important a role McCartney, Kaye and Osborne played in the development of bass sound and playing style. These three guitarists-as-bassists provided a comprehensive soundtrack to the 1960s and beyond via mediums including radio, television, film and single and albums sales, broadening awareness of the role of the electric bass guitar not only within the music industry, but perhaps more importantly, with the public at large. Before too long, other bassist began to mimic the sound and style of these innovators.

Max Bennett¹⁶ was unique in that he was one of the few bassists to have made the successful transition from jazz acoustic bass to pop electric bass guitar. He embraced the instrument and was adept at playing pop styles, having the advantage of a solid foundation in jazz harmony. Bennett was a regular bassist for Ella Fitzgerald and Stan Kenton and had also played with Miles Davis and Charlie Parker through the 1950s. After 'flirting' with electric bass guitar while sitting in on a few gigs a producer convinced Bennett he would get more studio work if he played electric bass guitar as well. Bennett purchased a new Fender Precision bass in 1962 and tried playing with a pick in the style that Kaye had popularized, even having lessons with Kaye but he ultimately rejected the pick preferring to work on his own finger-style approach. He said, "I'd listen to other guys but I always felt like I wanted to do my own thing in my

¹⁶ Bennett's credits include Joni Mitchell, Steely Dan, Quincy Jones, The Beach Boys, The Monkees, The Partridge Family, Phil Spector, Celine Dion, Lalo Schifron and John Williams. His website is found at www.maxbennett.com

own unique style because I think its important to be unique in some way, not for unique's sake, but to do your own thing" (conversation, Bennett:2002). This was to work in his favour as towards the end of the 1960s and into the early 1970s the popularity of the pick sound began to wane. Bennett had considerable success over this period working with a diverse range of artists from Barbra Streisand to Frank Zappa.

By the early 1970s there were other innovative stylists who were to make an impact in relation to technique and tone, but their influence was restricted as their music was genre specific (e.g. Stanley Clarke working almost exclusively in jazz and fusion) where they were exposed to a limited audience.

The second major innovation in the development of the electric bass guitars sound and playing style occurred in parallel to the careers of Kaye, Osborne and McCartney. James Jamerson was originally an acoustic bassist who played jazz and R & B. He began session work in the late 1950s for Motown records. Jamerson had a strong, but conventional bass style. He was encouraged to buy a Fender Precision bass in 1961 and spent most of his time on the road touring with Motown artists during this period developing his playing technique on the electric bass. He returned to Detroit by 1963 to work fulltime at Motown records as the house bassist. The strength and sound he had developed on the road with his electric bass began to influence and change the sound of Motown records. Motown records creator Berry Gordy said of his studio players in general and of Jamerson in particular:

Many of these guys came from a jazz background. I understood their instincts to turn things around to their liking, but I also knew what I wanted to hear – commercially. So when they went too far, I'd stop them and stress, "We gotta get back to the funk - stay in that groove." But... they did all kinds of stuff - always pushing me to the limit and beyond. Especially Jamerson. James Jamerson was a genius on the bass. He was an incredible improviser in the studio and someone I always wanted on my sessions. He'd get a simple chord sheet and build his own bass line so intricately it was hard to duplicate. Even he had trouble... when other musicians (bassists) went out on the road to play the song live, they'd go crazy trying to play his lines (Gordy, 1994:125).

Both syncopated 8th notes and chromatic passing notes were a part of the unique style of Jamerson's bass lines of the time. He was only to surpass himself around 1965

when he took his syncopated rhythmic concept and chromatic passing notes and began to apply it to 16th note phrases that stunned musicians in general and bassist in particular. McCartney commented:

I started listening to other bass players - mainly Motown. As time went on, James Jamerson became my hero, although I didn't actually know his name until quite recently. Jamerson and later Brian Wilson of the Beach Boys (featuring Carol Kaye on bass) were my two biggest influences: James because he was so good and melodic, and Brian because he went to very unusual places (Bacon, 1995:34).

When Bacon suggested the significant impact McCartney had on awareness of the power and potential of the bass, McCartney replied:

I wouldn't personally credit myself, but thanks... But part of it, yes. I think Jamerson, him and me, I'd share the credit there. I was nicking a lot off him. That was the thing though - it did become a lot more of a funky instrument. It was becoming almost like a drum, the rhythmic possibilities. It was exciting that. And I became very proud to be *the bass player in The Beatles* (Bacon, 1995:41).

The third significant innovation occurred with the slap bass phenomenon of the 1970s (the pioneers being Larry Graham and Louis Johnson) where the physical nature of the striking the strings created a greater dynamic frequency range than the less aggressive finger style. This timbre placed the bass at the front of the sound mix both live and on recordings. Because the sound was exciting it attracted interest from young musicians who took up the bass specifically to learn how to slap. By the 1980s most young bassists were trying to work out how to play this style and slap became a 'must have' part of an aspiring bassists repertoire. I recall auditioning prospective students on numerous occasions who had developed impressive slapping 'chops' yet had no other technical facility available, and could demonstrate little or no finger board knowledge. Inevitably this technique's popularity waned as people grew tired of the sound and is only occasionally heard now on pop recordings.

The unique approach to sound and technique introduced by Jaco Pastorius became the fourth significant innovation in the oeuvre of electric bass guitar. The release of his self-titled solo album, *Jaco Pastorius* (1976) irreversibly changed the perception of the instrument, affecting bassists and all musicians in a similar way to the effect

Charlie Parker and John Coltrane had on saxophonists in the 1940s-50s. An album by a bassist as leader was a rare event, with Stanley Clarke's first album, *Stanley Clarke* (1972) being the only recognized prior release for a featured electric bass album. By incorporating natural and artificial harmonics, double and triple stops and improvising in a bebop style thought not possible on the instrument, Pastorius's playing alerted everyone that the electric bass guitar was a far more sophisticated instrument, capable of a broader range of sounds, than was previously imagined. His particularly unique tone was achieved because he had converted a fretted bass into a fretless instrument, applying a hard coating of marine epoxy to the fingerboard to protect the rosewood from being eaten away by the round wound strings. This gave his bass a cello-like quality with a bright edge.

Pastorius's influences were primarily Jerry Jemmot (Jemmot himself is a Jamerson disciple) and James Jamerson. He took a solid understanding of R & B, Latin and jazz styles and created 16th note grooves with a sophisticated knowledge of jazz harmony that he applied not only to bass lines, but also to his jazz soloing concept. On the opening track of his first album, accompanied by only a conga player, Pastorius performs *Donna Lee* (Charlie Parker), a bebop anthem previously thought of as unplayable on a bass guitar. Not only does Pastorius play the melody in the standard key of Ab major at a brisk tempo; he also plays a superb solo and returns to the melody in E major.

Pat Metheny, perhaps one of the finest guitarist in contemporary jazz made the following astute observations on the influence of Pastorius in the liner notes for the re-release of *Jaco Pastorius* in 2000.

Jaco Pastorius may well have been the last jazz musician of the 20th century to have made a major impact on the musical world at large. Everywhere you go, sometimes it seems like a dozen times a day, in the most unlikely places you hear Jaco's sound; from the latest TV commercial to bass players of all stripes copping his licks on recordings of all styles, from news broadcasts to famous rock and roll bands, from hip hop samples to personal tribute records, you hear the echoes of that unmistakable sound everywhere. (It may even be more imitated at this point than the previously most pervasive jazz sound to escape into the broader culture beyond the local borders of jazz - the moody harmon mute stylings of Miles Davis) (Metheny, 2000).

Pastorius came to the attention of Joe Zawinul, co-leader of *Weather Report*, who invited Jaco to contribute bass part to several tracks on *Black Market* (1976). Subsequently Pastorius joined Weather Report and the group's next album, *Heavy Weather* (1977) became a benchmark in re-defining the role of the electric bass guitar. *Birdland* (from Heavy Weather) begins with a deep, resonate ostinato synth bass line played by Joe Zawinul. Jaco Pastorius employs artificial harmonics to play the high register melody in two octaves in the A section on fretless electric bass guitar. Most bassists, and musicians in general had never heard of, or thought artificial harmonics possible on the electric bass guitar. It was assumed that another synthesiser was playing the melody, typical of Zawinul's pioneering synth work in Weather Report. The electric bass guitar returns to a conventional role during the B section. The recording was greeted with surprise when finally word came out that Pastorius was indeed the player of the melody. Again bassists went scurrying back to their practice rooms to work out how this sound was achieved. Pastorius's melodic concept and range of techniques was so clear and strong that Zawinul recognized and acknowledged its potential by allowing Pastorius to feature, despite having Wayne Shorter in the group, as the obvious choice to play a melody.

Zawinul, in the tradition of his mentor, Miles Davis continued to push for innovation in jazz, rather than observe the traditions. *A Remark You Made* (also from Heavy Weather) similarly provided Pastorius with an opportunity to play a lyrical high melody, shared with Shorter on saxophone. These two performances became a catalyst for the growth in acceptance and acknowledgement of the viability and potential of the electric bass guitar as a primary melodic instrument.

Joni Mitchell began working with Pastorius in the mid-70s, most notably on the albums *Hejira* (1976), *Don Juan's Reckless Daughter* (1977), *Mingus* (1979) and *Shadows And Light* (1980) (live album and video). Pastorius, with his singing fretless bass guitar style created a unique dialogue with Mitchell's voice, which she found both musically inspiring and liberating. Music critic Stephen Holden described the effect thus, "his bass and her voice became a man/woman duet, an extremely intimate dialogue between two musicians" (Holden, 2003). Retrospectively Mitchell observed that prior to working with Pastorius, "nearly every bass player that I tried did the same thing, they would put up a dark picket fence through my music and I thought, why

does it have to go ploddy, ploddy, ploddy” (Mitchell, 2003). This comment relates to the often regimented, repetitive and conventional patterns bass players tended to rely on in pop music.

The Pastorius ‘sound’ soon became popular with artists and producers in pop music. A notable example is found with bassist Pino Palladino, who created melodic fretless bass features for hits for Paul Young including *Every Time You Go Away* and *Wherever I Lay My Hat That’s My Home* (1983-85) and South African bassist Bakithi Kumalo for Paul Simon’s *Graceland* album (1986). The fusion group *Yellowjackets* often feature bassist Jimmy Haslip in this role. The sound of a high register electric bass guitar, often in unison with saxophone is regarded as a trademark of the group.

This approach has become a significant influence on my composing and performing and three recital pieces, *Madeleine*, *The Last Song of the Blackbird* and *The Descent of Nebuchadnezzar* feature the bass similarly.

The electric bass guitar as an instrument, by its design, played a large part in inspiring these innovators. With the instrument they created previously unheard timbres. The basis of the instruments sound is fundamentally derived from, and realized by the technology of electricity. Without it the bass would not have created a new language or had the imposing sound or personality that Quincy Jones referred to that helped make the rhythm section the stars of popular music from the 50s and beyond (Roberts, 2001:48).

Chapter 3

Instrument development, technology and the future

Chapter 3: Instrument development, technology and the future

Chapter three begins with a discussion of the critical impact of electricity, drawing on Jacques Attali's discussion of *order* and *noise* as a reference. I look at the influence of technology in the construction of the electric bass guitar, from conception and development of instrument design, manufacture and materials through to resolving problems and assisting bassists to realize their sound through amplification, effects and recording technologies. I examine innovations and speculate of the instruments future. The chapter concludes with a discussion of the critical role the bassist-as-composer has played in the past and will play even more so in the future.

3.1 The impact of electricity

Arguably the single most significant technological event to impact on how music was produced, performed and recorded in the Twentieth Century was the introduction of electricity. Initially electricity was applied to the recording process, with the first working prototype electrical recording system developed by Western Electric in 1924. Condenser microphones (released in 1922) had improved frequency response and valves improved tone and volume in the amplification process that soon led to pickups being developed to attach to the bodies of guitars by the 1930s. "Microphones and amplifiers together with appropriate speakers, not only extended the frequency range of the recorded signal by a factor of four - strengthening the bass as much as the treble - but also permitted a degree of control over loudness and tone" (Chanan, 1995:56-57). Milt Hinton¹⁷ reflected on improvements in microphones, pickups and amplification in his lifetime. "It's one of those situations where technological advances really affected musical technique and creativity" (Hinton, 2001:68).

For the many benefits electricity offered in improving the quality of the sound of music there were also pockets of resistance, the implementation of new technology creating anxiety. In popular music an example of this was found with Bob Dylan, who

¹⁷ A leading jazz bassist since the 1930s, who died in 2001 at 90 years of age.

caused a furor when he first went 'electric' touring with The Band (electric bass and guitars) beginning in October 1965 at the Newport Folk Festival through to May 1966.

Dylan and the band played night after night before audiences of "folk purists" who persisted in ritually booing their way through song after song. An electric Dylan was viewed as a sellout of values of folk music. For many this myopic viewpoint precluded the possibility of listening to what was dynamic, explosive, at some points near violent music, light years ahead of its time in terms of power and majesty. The result was the rather paradoxical situation where people came prepared to boo what they ostensibly paid good money to come hear! (Bowman, 2000, p.2).

Folk music concerts were traditionally an intimate experience, where the volume of the instruments was such that they remained subservient to the voice, allowing the melody and lyric to be primary focus. It was the sound and volume generated by the electric guitars and bass that was offensive to the audience. "The source of conflict was the "great divide" between acoustic and electric sound. Amplification represented a louder, more demonstrative style of musical performance that put the performer at the center of attention" (Waksman, 1999:7). Simon Frith refers to this issue as "the recurring discursive clash in twentieth-century popular music, in which nature is pitted against artifice, "true" music (live music) against "false" music (studio or electronically manufactured) sounds" (Frith, 1996:25).

Musicians now had a choice of acoustic or electric instruments (or both). For the recording industry more recently a discourse has revolved around analogue versus digital recording, with various authorities taking opposing positions, each proclaiming one format superior to the other. Music consumers similarly faced the issue of vinyl versus CD. Although CDs vastly outsell vinyl records, some experts still believe vinyl to be a superior sounding format. Can an analogy be drawn where acoustic music is true and electric music is false? There are classical, folk and jazz musicians today who have little or no regard for music generated by electric instruments, hence a case for false music exists for them.

The considered inappropriateness of the use of electric bass guitar folk music also extended to bluegrass and jazz. Waksman's comment "The line between acoustic and

electric sound stands as a fundamental boundary” (Waksman, 1999:7) was made in relation to popular music in general, however can be applied when describing the relationship between acoustic and electric bass. The resistance is based on either one of two key issues, (1) the traditional sound of the acoustic bass is the preferred sound and/or (2) the acoustic bass has a certain appeal on an aesthetic level. On a personal note I experienced two examples illustrating the aesthetic inappropriateness of the electric bass guitar. In the first example I was offered a contract to place a jazz trio in the lobby of a five-star hotel in 1993 after auditioning with electric bass guitar. After several weeks of performances using electric bass guitar I was approached by the hotel management and asked to bring in an acoustic bass instead. The hotel mentioned that although they had no problem with the bass guitar or its sound, they preferred the traditional ‘look’ of the acoustic bass. The second example occurred in my role as bassist and musical director for David Atkins Enterprises (1989-96) preparation began in 1993 for a new stage musical *Hot Shoe Shuffle*. The show’s music was based around hit songs from 1930s-1950s. This was the height of big band era. In discussing instrumentation the producers were not so much concerned that the sound of the electric bass guitar was inappropriate, but rather that the look on stage should be that of a swing band of the period, again the aesthetic appeal of the acoustic bass being the primary consideration.

When a viable electric alternative finally arrived with the Fender bass, acoustic bassists were skeptical, if not suspicious of the instrument. They were confronted with three overlapping problematic issues; (1) acoustic versus electric, (2) vertical versus horizontal and (3) fingerboard (fretless neck) versus fretboard (fretted neck). Bill Black (Elvis Presley’s bassists) was one of the first bassists to record a major hit on the electric bass guitar in 1957 with *Jailhouse Rock* (from the movie of the same name), but his initial struggle to come to terms with the instrument was a common story amongst acoustic bassists.

Bill Black was feeling increasingly frustrated not just at the indifference with which he saw himself and Scotty (Elvis’s guitarist Scotty Moore) being treated but by his own difficulties in trying to learn how to play the electric bass. Bill had only recently gotten a Fender bass of his own, and he couldn’t get the ominous, rhythmic intro to Leiber and Stoller’s “(You’re So Square) Baby, I Don’t Care,” one of the highlights of the film score. He tried it again and again, got more and more pissed off and embarrassed by his failure, and

finally just slammed the bass down, slid it across the floor, and stormed out of the studio, while everyone watched in disbelief (Guralnick, 1994:408).

Gordon Stoker (from The Jordanaires) recalled “Elvis thought it was funny. He picked it up and played it himself. He just picked up that bass, put his foot up on a chair, and played that song all the way through” (Guralnick, 1994:408). This illustrates perfectly how someone who is not even a recognized professional guitarist (in this case, Presley), with no preconceptions or misconceptions, can readily adapt to the electric bass guitar.

Bob Cranshaw has had a long and successful career playing both acoustic and electric basses. He recalled:

Everybody was trying to make the transition bass (which) started to become popular. The string bass players started to lose work, because people wanted the electric sound. All the guys gave it a try, but it just wasn't comfortable. I tried to help a guy design something where the neck felt more like a string bass, but it didn't work. Jazz musicians are not into electronics to begin with, and they didn't want to hear it. They didn't want to muddy it up with new-fangled things. And the musicians hated amplifiers. I used to walk into a club, and as soon as they saw the amplifier, it was like, "Here comes the noise" (Birnbaum, 1997:26).

On the topic of bass function in jazz and specifically on the place of the electric bass guitar in jazz, Sandy Evans raised an illuminating point:

The pitch at the front of the note (of the electric bass guitar) is very well defined, and I think that maybe that's the thing people don't like in a bass instrument. The acoustic bass doesn't do that. For funk you can't beat it (the electric bass), and often I think funk grooves sound a bit weak on an acoustic bass. Some music needs more cut from a bass and some doesn't (conversation, Evans:1999).

Herbie Flowers¹⁸ is a consummate professional ‘triple threat’ bassist who plays tuba, acoustic bass and electric bass guitar. Flowers said:

¹⁸ Co-founder of classical rock group *Sky* with John Williams and a studio veteran of thousands of sessions with artists in the U.K. since the early 1960s including David Bowie, Lou Reed (including the classic acoustic bass double-tracked introduction to ‘Walk on the Wildside’), Paul McCartney, George Harrison and Elton John.

Studios wanted it (the electric bass guitar) because it was loud (and) it was always likely to cut through better. The double bass is much more of a languorous, rolling kind of throb that doesn't have the spike that a plectrum playing a wire string has got. "Bass guitar" says it all, you've added four strings to the guitar down an octave (conversation, Flowers: 2002).

Similarly the tuba has a cut or spike to the front of a note that the acoustic bass lacks and this may well have been an additional factor in its demise (along with the inability of its players to keep a walking bass line of four beats per bar going - popularized by acoustic bassists) as the bass instrument of choice in popular music and jazz early in the Twentieth Century. Generally, the jazz community did not get behind the electric bass.

I take issue with jazz musicians on the non-inclusion of the electric bass guitar in straight ahead jazz and I believe an injustice is being served on the music by the adoption of this attitude. A fundamental premise of jazz music is the notion of freedom to play or express what one feels, improvisation being the primary vehicle.

What binds together the jazz of the twenties with that of the nineties is not the theories of the historians, but the beliefs and practices of the musicians. Perhaps one appeal of jazz is that it has a rich, available tradition, and yet it thrives on freedom and innovation. (Porter & Ullman, 1993:5-6).

Legendary jazz pianist/composer Thelonius Monk said, "Jazz and freedom go hand in hand. That explains it. There isn't any more to add to it" (Porter & Ullman, 1993:6). Bruce Cale said, "jazz is about freedom that improvising gives on a given set of rules.... absolute freedom to express what you hear.... the essential thing for me is the ability to play freely what one feels and hears.... the freedom of the interplay is the real enticing thing" (conversation, Cale: 1999).

This freedom also extends to sound. A saxophone and a trumpet perform a similar function in jazz yet have a noticeably different timbre. These differences are not only allowed and accepted, but are in fact embraced and celebrated. Acoustic bass and electric bass guitar perform a similar function, also have a noticeably different timbre but this difference is not embraced. It is paradoxical that a music, whose foundation principal celebrates freedom, in fact implies restrictions, stringent rules and specific

guidelines by which it determines what is classified as ‘acceptable’ in jazz. This hypocritical position is not in the true spirit of the music.

An additional paradox is found when considering that two jazz ‘luminaries’, vibraphonist Lionel Hampton and respected jazz critic Leonard Feather provided support for the Fender bass as early as 1952. Hampton encountered Leo Fender early in 1952 in New York as Fender was out promoting the instrument. Fender gave a Precision bass to Hampton for his bassist, Roy Johnson to use. Hampton was a major artist, who recorded and toured in the U.S. and Europe regularly. This was a huge endorsement for the bass. “Clearly Hampton was open to new ideas and new ways of performing music - exactly the kind of broad-minded setting where the innovative electric bass guitar could flourish” (Bacon & Moorhouse, 1995:16). *DownBeat* magazine in July 1952 featured a photograph of Hampton with the new bass and a headline reading, ‘Hamp-lified Fiddle May Lighten Bassists’ Burdens.’ The accompanying article by Leonard Feather wrote of a “bass-ic revolution” describing the Fender bass as a “sensational instrumental innovation” (Roberts, 2001:35). New bassist William ‘Monk’ Montgomery (brother of famous jazz guitarist, Wes Montgomery) joined Hampton late in 1952. At the first rehearsal Monk Montgomery got a shock when Hampton announced that he wanted Montgomery to play Fender bass exclusively. When Montgomery protested Hampton offered him two weeks pay and the fare home! Monk Montgomery stayed on and learned to play the bass whilst on tour in Europe. During that trip the band recorded an album in Paris. This recording is considered to be the first album by a significant artist to feature an electric bass guitar.

Bruce Cale, while studying at Berklee College in 1966-67 observed that there were few electric bassists enrolled, but when he returned a few years later found the reverse to be true, although electric bass still was not encouraged. Cale picked up electric bass in the late 1960s and formed one of the first recognized fusion bands in Los Angeles with Mike Nock.¹⁹ When Cale later returned to Sydney he was alarmed to find that upon entering a jazz club to play a gig in 1978 on electric bass, he was told in no uncertain terms by the club manager to “never bring that thing to the club again”

¹⁹ A world-renowned New Zealand jazz pianist, now resident in Sydney.

(conversation, Cale: 1999) as it wasn't a jazz instrument, even though the group featured electric piano (Fender Rhodes) and electric guitar in the lineup.

3.2 Order and noise

While aesthetics play a part, it seems fundamentally that the opposition to the use of the electric bass guitar is predominantly one of sound. The acoustic (natural or true) sound is preferred to the electric (artificial or false) sound. Why? The acoustic bass was present at the birth of jazz and has been an integral part of the music as it evolved through the Twentieth Century. The music's composers, performers and audience are accustomed to, and comfortable with the characteristic "languorous rolling throb" (conversation, Flowers: 2002), the "blooming" (conversation, Atherton: 2004) sound of the acoustic bass. The acoustic bass reflects the idea of 'order' (the norm) in jazz, whereas the electric bass guitar reflects the idea of 'noise' (subverting the norm) as proposed by Jacques Attali.

Noise is that mode of sound that interrupts the existing codes according to which music is understood, and in so doing proposes a new way of musical understanding that could also lead to new ways of structuring power and difference (Waksman, 1999:11).

It is the disruption to existing codes and resistance to the potential re-structuring of power offered by the electric bass guitar that many jazz musicians object to.

To further investigate the 'sound' of bass instruments I conducted an experiment where I recorded a single note on tuba, electric bass guitar, acoustic bass and a kick drum (with either microphone and/or pickup) to compare and contrast waveforms, attack times and fundamental and transient components of each of these bass instruments.

With an acoustic bass I recorded three simultaneous tracks of a plucked acoustic bass note to a *Pro Tools* hard drive recording system; one track from a microphone placed ten centimetres from the face of the instrument, the second track from a microphone placed ten centimetres from a speaker amplifying a piezo pickup positioned on the

bridge and the third track from the piezo pickup sent directly into a D.I. (direct injection) box²⁰.

The first sound sample captures the natural acoustic sound of the bass with a microphone that is then simply converted to an electrical signal. The second and third samples are generated purely through electronic means via a pickup and are affected accordingly. While all three samples are affected when converted to electrical signals, when the waveforms generated from the recordings are analyzed, of most interest was the speed in which each source note registered, the shape of each waveform, and the variance in transients and high frequency energy represented. All notes are G1 in pitch and the diagrams represent a 20-millisecond sample of the waveform of each instrument.

In diagram (i) the sample waveform represents a note recorded acoustically by a microphone. Electronic enhancement played no part in the production of sound from the instrument in this example.

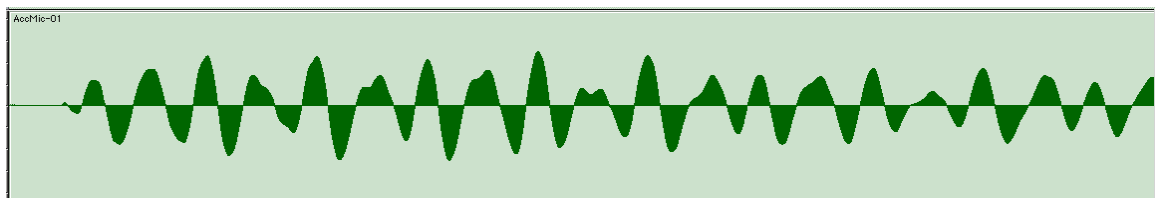


Diagram (i) - acoustic bass recorded via a microphone.

The waveform appears to be relatively uniform with content rich in fundamental pitch and minimal complex transient information, indicating a low content of high frequency energy.

In diagram (ii) the sample waveform represents the same note directly converted to an electrical signal by the bridge-mounted piezo pickup which is then amplified, the sound emitting from a speaker to be recorded by a microphone placed ten centimetres away.

²⁰ A direct injection (D.I.) box matches and connects an electrical signal from an instrument directly to a mixer for recording, eliminating the need for a microphone.

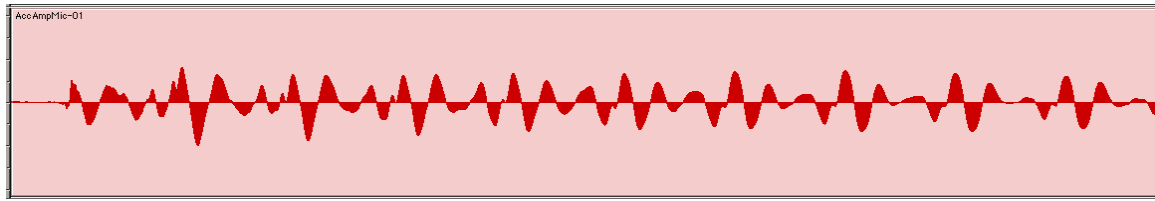


Diagram (ii) - acoustic bass amplified by pickup and recorded with microphone via speaker.

This sample reveals less uniformity and a sharper and more complex transient component indicating more high frequency energy being captured and amplified.

Diagram (iii) is a representation of the same note again, but the sound is captured and processed entirely by electronic means, from bridge mounted piezo pickup, then into a D.I. box and into *Pro Tools*.

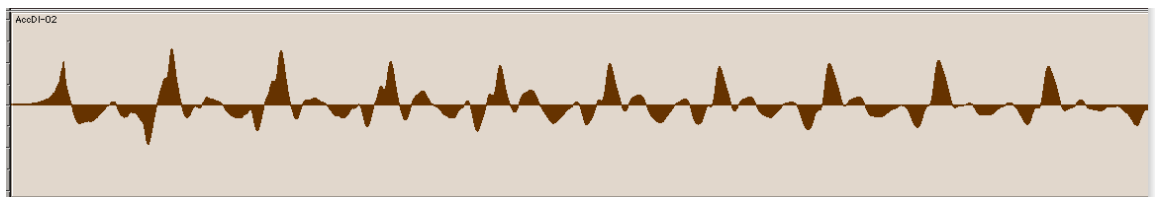


Diagram (iii) - acoustic bass amplified by pickup and recorded via D.I.

This sample suggests the greatest amount of transient information indicating a considerable amount of high frequency energy being captured and retained. In addition the attack time of the note is quickest, largely due to the placement of the pickup on the bridge of the instrument. As the string vibrates the bridge and pickup receive and transmit the information before it is then transferred to the face of the instrument where the bass resonates to naturally amplify the note. Diagrams (i) and (ii) rely on the sound waves traveling through air to reach the microphone, (i) from the face of the bass and (ii) from a speaker.

The closest representation of the waveform to correspond with what the human ear hears is reflected in diagram (i). This is a graphic representation of the natural sound of an acoustic bass. It could be argued that diagrams (ii) and (iii) are in fact a misrepresentation of the sound of an acoustic bass in that the signal is received first

by the piezo pickup, where the crystals contained within generate electrical energy from vibration, converting the signal for electronic processing and/or amplification.

This concurs with Frith's analogy of true and false, nature versus artifice. Although the words 'misrepresentation', 'false' and 'artifice' have negative connotations I suggest that in this case any such negative associations should be dismissed. Individually these sounds are successful and useable. Diagram (i) represents order, the natural sound we are traditionally used to hearing. Diagrams (ii) and (iii) to some degree introduce an element of noise, that which we are not used to. While each sample has the same origin, each is simply transformed or processed in a different way from the other, the result being a different sound. Each displays a unique character. One must use one's own judgment to determine what suits the needs of any given musical situation. Whether one considers each sample a good sound or bad sound is subjective. Because a sound is different does not mean it is inferior or desirable. The function of the note remains unchanged. It is a question of the context in which the note is placed.

A further three samples of an electric bass guitar, kick drum and tuba show a marked contrast to the waveform of the acoustic bass samples (electric bass guitar and tuba also play a G1 note). Diagram (iv) is of a fretted electric bass connected directly to a D.I. box, the sound generated entirely by electronic means.



Diagram (iv) - electric bass guitar recorded via D.I.

The waveform indicates a sound rich in fundamental content with a broad, even transient component.

Diagram (v) representing a sample of a kick drum, exhibits rapid attack and decay with a dynamic transient response.

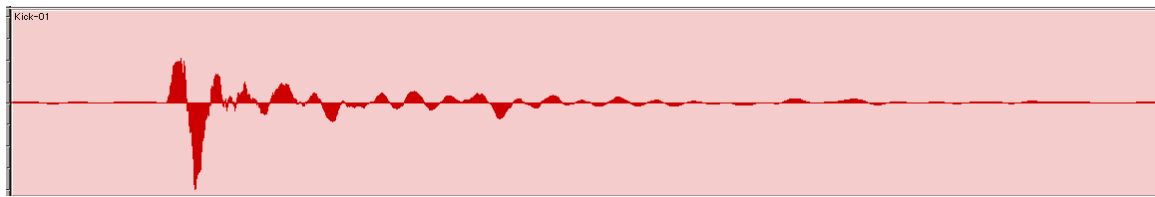


Diagram (v) - kick drum recorded via microphone

The tuba in diagram (vi) exhibits unusual characteristics in comparison to the other samples.



Diagram (vi) - tuba recorded via microphone

While there is a consistent underlying fundamental, the wide ranging transient indicates a greater content of high frequency than one would normally associate with a tuba.

It is clear that each bass instrument has a different attack, resonance and timbre. Why is any one instrument more or less desirable than the other? When one compares waveforms it is interesting to note that graphically, the electric bass guitar (diagram iv) bares the closest resemblance to that of the acoustic bass (diagram i) recorded with only a microphone (the natural sound) with the electric bass exhibiting a more dynamic attack at the start of the note.

3.3 Bass construction

The primary materials required to construct the Fender Precision bass (and the majority of electric bass guitars developed since) are wood and metal. This is the source of its basic tone. The construction is relatively simple, and has been crudely described as like “screwing two pieces of wood together and stringing them with fencing wire.” The instrument is colloquially known as the ‘plank’. The acoustic bass

colloquially is known as the ‘tree’, and by contrast its construction involves a higher degree of and craftsmanship and labour time than the original Fender design requires.

The sound of the Precision bass was designed to emulate that of the acoustic bass.

Leo Fender knew that if his odd new instrument were going to be accepted, it would have to serve the same function as “the big doghouse.” Even though the flatwound strings sounded incredibly dead by modern standards, they still sustained longer than the gut strings players used on uprights. That’s why Leo included a mute to deaden the sound and produce short, thumping notes (Roberts, 2001:33).

This mute consisted of a strip of rubber glued on the underside of the bridge cover, which applied light pressure to the strings to reduce vibration and sustain. Bass designer, Rich Lasner conducted a practical experiment with the original Precision bass and first Fender Bassman amplifier.

I took an original P-Bass, with flatwound strings as it would have been delivered and set up the specs that they used, with the mute in the cover. I played it through an original Bassman amp at medium volume and listened to what it was supposed to sound like. It’s the loudest upright bass you ever heard (Roberts, 2001:34).

Leo Fender did not envisage that bassists would soon experiment and alter his design to create a range of sounds previously unimagined. Bassists began to explore with the instrument, as was evident when many players removed chrome plated pick up cover and bridge cover containing the string mute. The thumpy muted sound designed to emulate that of an acoustic bass soon became less desirable. Players enjoyed the longer sustain available, far greater than that of an acoustic bass. Interestingly the muted sound has in recent times found favour with some bassists who either insert a piece of foam rubber under the strings at the bridge position or use a technique known as ‘palm muting’, resting the palm of their plucking hand against the strings while playing. This is a sound I use to effect in *They Live In You* (Mark Mancina, Jay Rifkin & Lebo M) and *He Lives In You* (Mark Mancina, Jay Rifkin & Lebo M) in the Disney production of *The Lion King*²¹ to emulate the sound of a log drum.

²¹ Australian production at the Capitol Theatre, Sydney from October 2003 to May 2005

There were design flaws in the Fender template, perhaps most notably the dead spot found commonly between the 5th to 8th fret (C, C#, D & Eb) on the G string where the note when plucked experiences a rapid decay. These notes of course also occur on the 10th-13th fret of the D string, but produce a thicker or muddier tone because of their location in the middle of the neck and also because of the D strings thicker gauge. It may often be preferable to use the lighter and/or or brighter sounding notes found on the G string were it not for their lack of sustain. Don Randall, general manager of Radio & Television Equipment Co., who was Fenders first distributor recalls:

We had a problem with the dead spot on the first string, around the seventh fret. A lot of people never found that out,” he laughs, “but some of the better bass players did. We worked to try to overcome that, and enlarging the headstock helped some. I think we determined that the resonance of the body, neck and head with the seventh position acted like a shock absorber, it kind of snubbed the tone. The mass of the body and of the head and of the stiffness of the neck all had an effect on the problem, but we never did solve it completely (Bacon & Moorhouse, 1995:24).

“This has proved a notoriously frustrating problem for both maker and player alike when dealing with wooden-necked instruments in particular, which rarely manage to avoid dead spots” (Bacon & Moorhouse, 1995:43).

In March 1999 Helmut Fleischer delivered a paper at a meeting of the Acoustical Society of America, based on his research on the problem of dead spots found on electric guitars and basses, utilising sophisticated laboratory equipment that produced interesting results.

At the first glance, an electric guitar or bass looks rather rigid. At the second glance, however, it proves as very flexible at particular frequencies. A dead spot, defined by an abnormally fast decay of the fundamental tone, is caused by damping due to energy transfer from the string to the instrument body. For a well-balanced instrument the bridge proves as practically immobile, while the neck is flexible and exhibits resonances. Under certain circumstances, the string may excite a neck resonance with the result that the string vibration is additionally damped. The mechanical conductance is a suitable indicator of the frequency-selective damping of the string supports. An *in-situ* measuring approach is suggested to ascertain the out-of-plane conductance on the neck. The combination of the curves as obtained at the nut and frets creates some

kind of a landscape which represents a "fingerprint" of a guitar with respect to dead spots. An overlay chart based on the fundamental frequencies makes its evaluation easier as the higher the conductance for a string-fret combination is the more probable it is to find a dead spot. Thus, the fingerboard conductance of an electric guitar or bass can be simply measured and promises to be a key parameter for diagnosing and avoiding dead spots (Fleischer, 2002:11-14).

Mass produced instruments tend to reproduce the same problem, with only minor variation in dead spots from instrument to instrument due to the natural response of individual pieces of wood. Each instrument, although identical in appearance will, however subtly, also exhibit variations in tone and response. It is quicker to diagnose trouble spots by simply playing a bass to discover its dead spot(s), listening out for the associated rapid decay. Fleischer's work retrospectively confirms the suspicions of many bass designers; that the neck was the origin of the problem due to lack of rigidity and a propensity to resonate, rather than the body. This problem was reduced somewhat with the introduction of the neck-through-body concept, originally produced by Rickenbacker in their '4000' model in 1957, where the strings are attached, from bridge to tuning keys, onto one strip of wood. The body consisted of two wings glued either side of the neck. This went some way towards reducing the problem, but did not eliminate it.

Geoff Gould (who later formed Modulus Guitars), working with graphite materials for an aerospace company manufacturing satellite parts in 1974, speculated on the use of graphite materials to build an electric bass guitar. His aim was principally to reduce weight and increase strength and rigidity. He took his ideas to Alembic (a custom bass building company) where luthier Rick Turner worked with Gould to develop bass necks. Turner said "We realised at that point that that stiffer was better in a neck, at least in terms of evenness of tone and lack of dead spots" (Bacon & Moorhouse, 1995:42).

Not until Ned Steinberger developed the Steinberger L-2 bass²², a radically re-designed headless bass made entirely from graphite in 1979, was the problem of dead

²² The bass won several design awards including being placed in Time magazine's 'Five Best Designs Award' of 1981 and in the same year the 'Industrial Designer Excellence Award' from the Industrial Designers Society of America, as well as praise in music industry reviews.

spots alleviated. Bassist took to the instrument immediately prompting Steinberger to comment, “There’s a certain logic in the instrument that is visible, that is understandable, that is communicable to bass players. That in my mind is one of the main reasons why we were able to pull off such a radical design” (Bacon & Moorhouse, 1995, p.53). Steinberger also observed that bass players were more interested in custom-made instruments than guitarists. This view is supported within the local bass community in Sydney, Australia where several top professional electric bass guitarists have had one or more custom made instruments built for them by local luthiers Rick Miruzzi and Geoff Mallia.

Ultimately the radical appearance of the Steinberger L-2 fell victim to fashion in the late 1980s and Ned Steinberger created the Q4 and XM2 series headless electric basses that featured conventional wooden bodies with bolt-on graphite necks. Other manufacturers began to integrate graphite materials into bass construction, most notably Status basses (U.K.) and Geoff Gould’s Modulus Graphite (U.S.), who offered a graphite neck-through body with wooden wings, taking advantage of the rigidity of graphite with the aesthetic of wood to give a more conventional look and tone to their instruments.

In my own professional practice I have developed a simple playing technique that assists in alleviating the dead spot on a conventional wooden bass with a bolt on neck. It involves simply fretting (or holding down but not striking) the note one octave below the offending dead note, whilst striking the dead note. The sympathetic vibration of the fretted note one octave below allows for the normally dead note to vibrate more freely, making it a useable note again. The same effect can be achieved wherever there are problems relating to resonance. This problem is sometimes found on the low B string of 5 or 6 string electric bass guitars, where sustain is sometimes less than desirable. By simply fretting the note one octave above, the lower note will vibrate more freely. I employ these techniques regularly when a lighter, more sustained tone (G string) or more sustain and resonance is required (B string).

3.4 Amplification

Milt Hinton in his 89th year provided perspective:

In the late 20s and early 30s when I started out playing in Chicago, there were no microphones on the bandstand. You'd get a bass with a big sound, buy the best gut strings you could afford, and do anything possible to get your sound projected beyond the bandstand (Hinton, 2001:68).

For Hinton pick ups and amplification were the catalyst for the biggest change in bass playing technique.

Amplification meant you could use different types of strings, change your bridge position, play faster and with more fingers, and so forth. It's one of those situations where technological advances really affected musical technique and creativity (Hinton, 2001:68).

In one of many conversations with Ron Falson, a leading Sydney trumpeter, arranger and producer whose career dates back to the Trocadero Orchestra of the 1950s, Falson often recalled (only half jokingly) that "the bass amp was the worst thing ever invented, because you could finally hear exactly what the bass player was playing, which was in many cases awful notes played out of tune" (conversation, Falson: 1999). Prior to efficient amplification there were a lot of 'fraudulent' bassists getting plenty of work. Falson championed the use of the electric bass guitar and would encourage acoustic bassists to investigate it in the early days of the instruments development. He praised its clear and punchy sound and its accurate intonation.

Steve Swallow said in relation to the importance of amplification:

That was an adjustment that took me some time to make (too). I had an immediate physical affinity for the instrument itself, but it did take me some time to love the amplifier. For a long time I saw the amplifier as the box across the room where the noise came out. It took me years to realize that it was as much the instrument as the thing I was touching, and I needed to develop the same kind of relationship to the amplifier that I had to the bass itself (Birnbaum, 1997:26).

Quality sound amplification with sufficient power, yet manageable size has in the past, and today remains a significant challenge for designers and engineers of bass amplification. With the advent of the transistors technology in the 1960s the miniaturization of electrical components has seen a reduction in size and increase in power of all things electrical, including amplification. The first Fender Bassman amp (released in late 1951) designed to be used with the Precision Bass, offered 26 watts of power and was the first amp specifically designed for the bass guitar. It improved the bass players lot at the time but had a limited frequency response and was reasonably large and heavy. Undoubtedly amp design improvements in power to weight ratio and tone shaping flexibility have been made since the Bassman. Today bassists commonly use an amp with 300 watts of power with a speaker cabinet that can reproduce frequencies from 40 Hz up to 20 kHz cycles; a bass amplifier as efficient as hi-fi equipment. The amplifiers are half to a quarter the size and weight of the Bassman amp head and the power handling-to-weight ratio for speaker cabinets have been reduced significantly.

The primary problem of reproducing a clean and powerful bass sound is that low frequencies require more power to compete with perceived volume of mid to high frequencies (for example, a 500 watt bass amp will not necessarily make an electric bass louder than an electric guitar with a 50 watt guitar amp). Consequently this means bass speakers need high power handling capacity that require heavy and large speakers. The laws of physics dictate that to reproduce low frequencies a significant amount of air must be moved, and with current speaker technology this means a large surface area is still required to generate these low frequencies. To house these speakers a strong cabinet is required; again more weight. As a result bass players still have to transport relatively large and heavy speaker boxes to reproduce good clean sound at a reasonable volume. One of Leo Fender's main objectives in creating an electric bass guitar was to relieve the bass player from the cumbersome size of the 'doghouse' bass. While Fender achieved this, regrettably the bass player is still stuck with the doghouse bass speaker box. Bass amplifiers are now small and lightweight but are able to produce a clean, powerful sound, so the last real technological challenge in the chain is for designers to find a way to replicate low frequencies with high power by reducing the weight and surface area of speakers and speaker cabinets without compromising sound quality.

3.5 Innovations

Both evolving technology and playing techniques have allowed musicians to greatly expand the range of tones available from the electric bass. More recently, innovation in digital software and hardware design have produced products such as the *Roland V Bass* (where the electric bass primarily becomes a trigger for a sampler or synthesizer). This technology, generically known as ‘digital modeling’ allows the instrument to produce any sound a keyboard or sampler can store. But what of the sound or tone produced by the hands alone? Over many years of observation, from spending time in music stores, through to gigs and teaching it has become clear to me that to produce a good sound one must have a clear idea in one’s mind what constitutes a good sound. Then one must develop the facility to realize that sound; not through changing types of instrument, strings, pick ups or amplifiers.

Michael Tobias, a renowned bass luthier said:

There are many paths that lead to tone. For each of us the path is different. There are many subtleties and nuances that characterize the sound of one player but are very different (or absent) in the tone of another, even though both are using similar equipment. Like snowflakes, no two of us are alike - we don’t have the same ears, the same fingers, the same muscles in our hands and arms. And we may not share the same idea of what constitutes good tone (Tobias, 1994:34).

For example, an elementary level bass student will present at a lesson with an inexpensive instrument. The student is inexperienced and consequently produces a poor tone from the instrument. When I ask to inspect the instrument and play a few scales or patterns, the bass takes on a new, improved sound. Alternatively the same student can be given an expensive high end bass with active electronics, exotic woods, preamp etc. and produce a tone not dissimilar to that of the cheap bass, yet in the hands of a professional the instrument sounds impressive. I would argue that this is not related to talent or ability, but rather the fact that a pre-determined concept of sound is in place with the experienced player and via the hands and fingers this quality sound is realized. I concur with the head, heart and hands theory, where first one has to think the sound or musical phrase (head), add feeling or emotional element (heart) and finally realize the music physically through to the instrument (hands).

James Jamerson said “Bass players call from all over, wanting to know what type of equipment I use, what type of bass, what kind of strings - things like that. I’ll tell them, but that’s not what’s important; it’s the feel. It’s all in here, in the heart” (Mulhern, 1993:155).

Stuart Hamm²³ said, “so much of your tone comes from your hands, and I want to keep as much control over that as possible” (Mulhern, 1993:101). James Jamerson also said when asked whether he used any effects, “Not unless people ask for them. It’s all in the fingers, man” (Mulhern, 1993:156).

3.6 Future of Bass

It is possible to make an educated guess regarding the future of the electric bass guitar in the short term, as there are key indicators in areas currently developing that suggest what is to come. As to the long-term future one can only wildly speculate. A look at both positive and negative outcomes may help define ultimately which direction the evolution of the electric bass guitar, and bass instruments in general will take. The future of bass as an important function of western harmony is secure as long as composers continue to follow those guidelines.

What of the future of the electric bass guitar as an instrument? The lute was a common instrument in medieval times but in contemporary society a lutenist is a rare species. Does the electric bass guitar face a similar fate in future society? It will exist in one form or another but I believe it is possible that in its current form there is a chance it may face relegation (with other instruments of popular music), to become part of an historical category of instruments, supported by organizations whose mission is to preserve music from a bygone era for future generations to appreciate. It may continue to have an audience with musicians who will revere and champion its use, albeit smaller in number than is currently the case. It could continue to be played but may exist on the fringe, rather than be an integral part of mainstream popular music. This is not dissimilar to the fate of other instruments from the medieval and

²³ A virtuoso bassist renowned for his transcription, adaptation and performances of Debussy’s *Dr. Gradus Ad Parnasum*, Beethoven’s *Moonlight Sonata* and J.S. Bach’s *Prelude in C* from the ‘Well-Tempered Klavier Book One BWV 846’.

baroque period that continue to be championed by a small, but passionate group of musicians and followers. These instruments and the music composed for them remain in a time capsule of sorts to be enjoyed, studied and appreciated for future generations.

While it is evident that bass as a musical function has been an integral part of pop music there have been noted examples of a shift in the use of bass. Randy Jackson²⁴ discusses some of these alternative directions for bass lines in pop:

As hip-hop came more to the forefront, the drums became the center-point of the music. The drums are busier, so the bass lines have to be simpler. Realise that *No Diggety* which was a No.1 record for Blackstreet back in '96, had no bass. Some of Prince's songs had no bass - they might have had two instruments on them. Even now, when you listen to 50 Cent, it's so simple; there might be three instruments on it, and they're all playing very simple parts. The time now is for the musician has really changed. It's about finding the right parts, not trying to prove that you are the right player. You can only prove that by playing the right parts (Jackson, 2004:42-43).

The music of bands including the Red Hot Chilli Peppers and Primus, who came to the fore in the 1990s often featured busy, innovative bass lines from Flea and Les Claypool (who additionally was lead singer and songwriter) respectively. This helped to boost the profile of the instrument and young bassists learned to play by copying bass lines from these players. As a reaction to this in more recent years several bass player-less rock bands have enjoyed success. These include the bands *White Stripes* and the *Black Keys*. Without the presence of a low end instrument there have been compromises made, where for example, drums are tuned lower or electric guitars play bass lines, albeit one octave higher than they would normally sound. Consequently this creates opportunities for these instruments. Journalist Nick Marino raised the question, "Can it be that the electric bass, so long underappreciated, is now being phased out of rock?" He said

the cultural pendulum has swung toward streamlined garage rock and punk-blues, where less is more.... a bassless sound is a wild sound. If the bass is a

²⁴ Jackson has been a session bassist since the 1980s. Credits include Madonna, Mariah Carey, Whitney Houston, Cher, Bob Dylan, Celine Dion and Bruce Springsteen. He was also vice president of A & R for Columbia Records (8 years) and senior vice president of A & R for MCA (4 years). Currently he is one of three judges for *American Idol*.

connective instrument, then a bassless band is quite literally unhinged. Eliminating the bass creates a liberating space in the music. Guitars have a panoramic sweep with fewer instruments in the picture. Drums swing freely (Marino, 2003).

Of the bands interviewed by Marino, none had anything against the bass as a musical device, but rather were searching for a different sound. In early blues music from the Mississippi Delta, bass instruments were not a featured part of the music. The acoustic guitar was the primary instrument accompanying the voice and bass lines were played on the lower strings of the guitar. In once sense, these bands are returning to this concept in a somewhat updated form. Marino summarized, “Indeed, it seems that if the new bassless bands have killed anything, it’s the notion that rock bands have to play in traditional configurations” (Marino, 2003).

Current *Bass Player* editor Bill Leigh said in an email exchange with me on this topic:

As I told the writers who interviewed me, I’m not at all worried about the trend; trends come and trends go, and there are just as many tracks with a lot of bass playing on them. That said, two of my favourite bass-free songs have been enduring hits: the B-52’s *Rock Lobster* and Prince’s *When Doves Cry* (email, Leigh:2004).

This is again an example of noise affecting order within the context of rock music. The use (or not) of instruments causes change, directly affects the sound of the music, and this experimentation should be embraced. Pop and rock fashions are cyclical by nature. I believe the future of bass as a sound or tonal expression in the sonic landscape will ultimately be secure. Madeleine Crouch, general manager of the International Society of Bassists said, “People will (continue to) crave the primal satisfaction only the deepest sonorities provide” (Crouch, 2001:76) in answer to the question of the future of bass. Bassless bands may increase in number before they diminish. Their real value lays in challenging the conventions of the music, the result being the creation of new forms.

Of the many instruments invented and developed over the five hundred years prior to the arrival of the electric bass guitar in 1951, few have survived to become a standard instrument of choice in popular music. The exceptions are the piano (which is often largely replaced by synthesized or sampled versions) and the guitar (which is often

electric). Strings, brass and woodwind; the traditional instruments of classical music exist primarily as sweetening in popular music, rather than being the focus and are now often sampled and are played by a keyboard player. One cannot assume that in 100 years pop music will be based around the standard pop rhythm section of guitar, bass, drums, keyboards and vocals. Children will still be encouraged to learn traditional acoustic instruments (e.g. violin, flute, piano, classical guitar etc.) as has been the case for several hundred years, but the non-traditional instruments, in particular drum kit, electric guitar and electric bass guitar the Twentieth century has brought to the fore are not assured of the same place. It is easier to visualize children studying violin in 200 years, but harder to imagine the same with a drum kit or Fender-styled electric guitar or bass. Their development was critical to the evolution of rock and roll that is only a little over 50 years old. Many parents at the time of the birth of rock and roll hoped that it would be a fad or a craze that would pass; and they may still be right.

In my own professional career many technical improvements, as well as new playing techniques have evolved for the electric bass guitar against a backdrop of decreasing work opportunities. The advances made in computer technology and application have had a significant role to play in this downturn of work. I was fortunate to be a part of the session 'scene' in Adelaide and Sydney, which lasted from the mid 50s to around the mid 80s. There was consistent session work for top electric bassists around the world recording jingles, television themes and television shows, demos and finals for pop songs, film scores, music for light entertainment programmes etc. A significant step in the 'rationalization' of employment within the recording industry came with the development of the Linn drum machine in 1979. This box, in effect a hardware sequencer containing drum kit and percussion samples, effectively began to replace drummers and percussionist on radio and television jingles and in some styles of pop music. Economics were the principal driving factor in the uptake of drum machines by jingle writers and producers - they could save a musician's session fee. There is an argument for the use of the machine in that the general public, for whom this music is geared, may not be able to detect nor care whether a real drummer or a machine was providing the percussion for a 30 second jingle or 3 minute pop song.

After the Linn drum machine in the early 80s came samplers and sequencers capable of recording and playing back anything that made a sound, including bass guitar. Bass frequencies are sampler friendly. Nuances and subtleties demonstrated in bass playing are less easy to detect to the untrained ear (i.e. the general public). Consequently sampled and sequenced bass lines sound good and are quite convincing when mixed in a music track with other instruments. Again another session fee saved. This pattern continued with many other instruments to the point where one keyboard programmer effectively becomes a whole group. By the mid 80s the electric bass had been all but replaced by sampled bass in commercial work, with the exception of big-budget projects or when the nuances and subtleties a real bassist can provide that a sample can't, were essential to the success of a music track. The acoustic bass, although less in demand, survived supplanting by sequencers longer because its sound is more complex to replicate authentically, although it too fell to the producers axe when sampling technology improved. It still irks me when I hear a sampled acoustic bass on a television commercial, knowing it is being played usually by a keyboard player who is not aware of the subtleties and nuances of the instrument and may choose idiomatically incorrect notes or phrases. If a major client (e.g. Toyota, Coca Cola etc.) was aware of how insignificant one session fee was in the overall budget, I would hope they would prefer to opt for quality to promote their product. The electric guitar, saxophone (especially for soloing) and human voice remain studio mainstays, as they are to differing degrees, hard to replicate with authenticity.

A recent development in the sampling concept, referred to as 'digital modeling' has arrived and has a promising future but needs further refinement. Essentially the bass guitar can become a triggering device for bass samples in software or hardware form that could contain any bass sound derived from electric and acoustic basses and synthesizers. It is also possible to opt for strings or pickup combination with any type of amplifier and speaker cabinet with any speaker configuration. When this concept is further developed these options could be available directly on an instrument as part of the instruments electronics. This of course will be of great benefit to any bassist looking to expand his/her tonal palette. To have any range of sounds immediately available will offer enormous scope to a working professional or to an experimental bassist looking to explore interesting combinations. There will also be those who

reject this technology and remain purists who specialize in the original analogue sound of a traditional bass.

If one could position oneself in 1950 on the cusp of the development on the Fender Precision bass and predict its future I'm sure some would have expected that the instrument would not be accepted and literally disappear from view, only to end up as a curiosity piece in a museum. How many would be confident enough to predict that the instrument would become an integral part of every popular music group around the globe, continuing to evolve with radical new designs and materials used in manufacturing and perhaps one day see the instrument even leading the band?

The 'Future Of Bass' was a featured article in *Bass Player* (February 2001) and reported a range of views that were whimsical, humorous, stimulating and thought provoking.

Rich Lasner observed while leafing through a collection of late 1950s *Popular Science* magazines that the covers featured predictions including "flying atomic cars and Martian vacations" (Lasner, 2001:70) and Richard Johnston, in an editorial recalls that the "seers of the '50s envisioned, for instance, a self guided solar powered bubble car" and goes on to remind us that "ironically, 2001 would find us still depending on the internal combustion (engine), with the most significant change being the exponential growth in the number of cars" (Johnston, 2001:4). Many of these predictions from the 1950s are yet to be realized, but without them we have nothing to strive for. "The more things change, the more they will remain the same" (Gage, 2001:74) said David Gage, a New York bass luthier.

A contrasting and alarming point of view that supports my thesis comes from Karl Coryat in his article 'Bye Bye Bass'. He predicts that bass as we know it will all but disappear from pop music. He said:

As the world gets more digital, pop music will increasingly sound like today's electronica and less like alternative rock. I hate to say it, but the instrument we call 'guitar' may still be around because of its unique texture, but the electric bass - with its single-note lines and digital-modeling friendly attack - won't

have much place in this music. People will ‘play’ some other interface to produce low frequency elements of tomorrow’s hit songs (Coryat, 2001:74).

The interface Coryat refers to as a replacement for the bass guitar in pop of the future could be an object of any size or shape and made of some as yet undeveloped materials that contains triggers to be played to define pitch. This allows the imagination to run wild with ideas for new instruments, which in turn could eventually become a reality in the future.

I believe Coryat’s prediction will be borne out. His phrase ‘place in this music’ (referring to pop music of the future) is the key to the electric bass guitars survival, growth and development. Within commercial pop there may be limited or no place (other than for a ‘retro’ look). Outside of commercial pop music there is a place and a future. Pop is a slave to fashion, both aural and visual and is also cyclical in nature. We have in recent times witnessed in turn the revival of interest in music and fashion from the 1950s, 1960s and 1970s in particular. Rap and techno music artists often sample recordings from these periods to build ‘new’ songs. Comparisons to these phenomena exist in the bass world. When one considers all the radical new designs and materials used to give bassists what they wanted from their instruments (particularly Alembic and Steinberg) during the 1970s and 1980s, it is interesting to note that the Precision bass has become popular again, particularly with the alternative and ‘grunge’ rock bands of the late 90s. Fender re-issued the original 1951 designed Precision bass in 2001 because of this resurgence of interest in addition to celebrating the instruments 50th birthday.

The reasons for choosing the old instruments could be both the look of the instruments, but a big part was the traditional and classic sound of the bass. Patrick Dahlheimer, from the band *Live* is one such player. He was formerly a player of high tech instruments and said of his 1962 Precision bass, “The sound was amazing; it was musical. The tone didn’t depend on a battery or active electronics. It was a hunk of wood and you had to make it work” (Roberts, 2001:178).

The Precision bass was the first professional quality bass guitar I purchased in 1979. Most of my initial study and practice was on that instrument (unfortunately stolen in

1993). In the majority of my professional work since 1989 I have chosen to use active 4, 5 and 6 string basses; however in May 2004 I have come full circle in a sense by purchasing a 1972 Precision bass (predominately unchanged in design from the second generation Precision bass of 1957). I am again enjoying the sound of a passive bass with a rich and complex bass tone. At an awards ceremony in June, 2004 I used only the Precision bass at rehearsals for a series of production numbers incorporating big band, music theatre and pop styles. The musical director, Geoff Harvey was initially concerned I didn't have the active 6-string bass he was used to hearing. I assured him I could return with it after rehearsals. At the end of rehearsals I intended to retrieve the 6-string. The musical director said "Why?" This was a confirmation of the validity, in spite of major technological advances made in bass building, of an instrument whose template is 53 years old. It still had a viable role to play.

Far-fetched predictions for bass were also in the realm of science fiction, where bassists could 'transport' to gigs anywhere on Earth or in the Universe to allow interaction with a vast range of musicians. Others were closer to reality - virtual jamming, either at home alone with virtual musicians or via the internet with live musicians. Luthiers predicted the cloning of rare and exotic woods and the perfect replication of tonal characteristics of natural materials with man made composites. Even neural implants that will replace the need for thousands of hours of practice were predicted (Johnston, ed., 2001:66-78).

Consider the advances in the music played by the bass guitar over 50 years. Early players in rock and roll and pop music had limited technique and limited knowledge because the music of the period did not challenge them beyond elementary function. Compare this to the requirements and expectations of a bass guitarist today in a typical covers band or function band. He or she is required to play considerably more sophisticated bass lines with competence in a broad range of styles (including rock, pop, R & B, Latin, country and jazz) and techniques (including finger style, pick and slap). As music has developed and expanded and will continue to do so, the demands placed on the contemporary bassist will raise the benchmark for all, which will ensure not only survival, but progress of the instrument.

In a discussion of amplification *Bass Player*, in a quasi-humorous comment predicts ‘Bass Space Reactive EQ’, a software package that combines real-time analysis of bass frequency and room acoustic response that “constantly adjusts bass frequencies for maximum presence” (Johnston, ed., 2001:76). I look forward to the realization of such software. A significant problem regarding the issue of bass frequency amplification is ensuring a clear and focused sound reaches the ears of the listening audience. Most people have been to concerts in stadiums or arenas where, more often than not, the bass guitar sounds like a low flying B-52 bomber; a low rumble with indistinct pitch and a tone that bears little or no resemblance to the sound heard on CD or record of the instrument being played live. I regret seeing many of my favourite bassists in this situation and being frustrated at rarely being able to hear the subtlety and nuance in the playing one would normally associate with such accomplished musicians. Even on small gigs the bass sound a musician has worked hard on to develop, to become his/her ‘voice’ may often sound different to the listener as close as a few metres away. A clear bass sound is extremely hard to project with consistency around a room of any size. This remains a significant problem that requires further research and development to resolve.

Luthiers, designers and engineers will continue to be challenged to meet the demands placed on them by the players. Rich Lasner from Modulus guitars²⁵ said:

To me, bass evolution is a horse race between players reaching for the new and builders and inventors eliminating roadblocks that get in the way of creating great music. This synergy is the energy propelling the next great bass idea that will take us all by surprise (Lasner, 2001:70).

Michael Manring has extended electric bass guitar vocabulary considerably, particularly as a solo artist who utilizes a multitude of techniques and alternate tunings. In his article ‘It’s Up To You’, he said

One of the exciting things about playing the bass guitar is it’s such an open frontier. It’s still a young instrument and very much a part of this time we live in. I believe it has unlimited potential, but at the moment its future isn’t very clear. I think it’s pretty safe to say people will still be playing Bach and

²⁵ A company pioneering in the use of graphite fibre technology in instrument building.

Beethoven on the violin a hundred years from now, but the bass could be anything from completely forgotten to a major voice in the culture. It all depends on what we do now - the depth and passion with which (we) study, play compose for, and listen to this instrument (Manring, 2001:78).

Brian Bromberg, a virtuoso acoustic bassist and electric bass guitarist said, “In the new millennium the bass can have any role or function in music you choose. It doesn’t matter what you do or what style of music you play - just do it well. Follow your heart and practice, practice, practice!” (Bromberg, 2001:70).

The future of the electric bass guitar is in the hands of those who play the instrument. Their challenge is to assert themselves by re-defining the role of the bass, creating original new work and developing new techniques that challenge the conventions that currently define the instruments role. No one is going to do it for us, so as Manring said, “It’s up to you.” It is only then that the instrument is assured of taking its place within future music.

3.7 Bassist-as-composer

Historically composers have not viewed the bass as an instrument to situate in the foreground of their compositions. Joe Zawinul was one exception in that he recognized the potential of the electric bass guitar through hearing Jaco Pastorius, who he provided with an opportunity to feature in his group, *Weather Report*. Within jazz, a lineage has developed of bassist-as-composer and bassist-as-leader, beginning with the compositions and ensembles led by Oscar Pettiford in the mid-40s to those led by Charles Mingus in the 1950s. Charlie Haden continued the tradition with the *Liberation Music Orchestra* and more recently, *Quartet West*. Dave Holland most recently received acclaim with both the *Dave Holland Big Band* and *Dave Holland Quintet*. Holland received four *DownBeat* awards for Jazz Artist, Acoustic Bassist, Jazz Album (*Extended Play: Live At Birdland*, ECM) and Acoustic Group (*Dave Holland Quintet*) of the year in 2004. This is the first time in the history of *DownBeat* that an artist has won four awards in the one year.

For electric bass guitar in jazz the tradition began later, with the compositional work of, and ensembles led by, Steve Swallow, Stanley Clarke, Jaco Pastorius, Marcus

Miller and John Patitucci. Patitucci is one of only a few virtuoso bassists equally at home on either acoustic bass or electric bass guitar. In the rock music field Jack Bruce, Paul McCartney, Geddy Lee, Sting and Les Claypool are of note in that they have each developed a unique bass style, been composers of music of high quality and quantity and additionally are lead vocalists. Their reach across a wide range of the audience for popular music around the world is undeniable.

Locally, bassist Bruce Cale has had a vital career as composer and bandleader, forming the *Bruce Cale Quartet* and *Bruce Cale Orchestra* upon his return to Australia from the U.S. in 1977. Cale has composed symphonic music, chamber music and music for jazz ensembles through the 1960s, 70s and 80s. Anglo-Australian electric bass guitarist Steve Hunter is an important example of a contemporary bassist-as-composer. In 2003 Hunter was awarded the prestigious two-year artist fellowship from the Music Board of the Australian Arts Council. This is a significant acknowledgement of the body of work he has steadily built up over nearly 30 years as a bassist, composer and bandleader. His musical direction of a diverse variety of ensembles has allowed him to experiment with and expand his art. Steve Hunter began writing in 1976. He saw playing and composition as going hand in hand. He has written in excess of 350 compositions, with over 90 now having been released on various albums. Hunter has led bands including *Steve Hunter Group*, *Steve Hunter Quartet*, *Local World* and co-led *Tree* and *Playdiem*. He is currently working on a book of twenty etudes for solo 4-string electric bass guitar. Several of the etudes will be written for younger or less technically advanced players in mind, so they too can explore the bass as a solo instrument.

Bassists-as-composers and bassists-as-leaders are the key to increasing the knowledge, perception and understanding of the potential of the electric bass guitar in popular music and jazz - among both their musician peers and the international music audience at large.

This chapter discussed the fundamental significance of electricity in the creation of the bass guitar and examined the resistance to the idea of electrifying music referring to Attali's discussion of *order* and *noise*. An experiment was conducted to explore similarities and differences between bass instruments in order to inform us as to why

there is resistance to the use of the electric bass guitar. The chapter also looked at construction methods and materials used in the building of the instrument, including related problems and attempts to solve them via new technology and materials. The chapter concluded with a speculative discussion of the instruments future, and importantly, the role bassists must take as composers and leaders in order to secure future growth and development of the electric bass guitar.

Chapter 4

Analysis of composition and performance

Chapter 4

4.1 Introduction to composition and performance

During my period of candidature I have focused my attention on analyzing the conventional role of bass playing, through transitional approaches and onto developing trends. This has been in order to inform, enlighten and create a better understanding of and appreciation for both the expected function of, and further possibilities for the instrument. Composition and performance was the primary vehicle used to explore and practically demonstrate this process. I have composed and performed thirteen pieces and presented an additional seven pieces by other writers over three recitals. The emphasis during this period has been on giving the bass a greater focus in the group dynamic, while not undermining the integrity of the pieces. The opportunity to experiment presented both challenges and rewards. I composed for the electric bass guitar with a view to further explore and extend its harmonic function in all aspects of performance, from a fundamental support role, to supporting harmonic structures, through to primary melodic instrument and finally solo instrument, incorporating bass line, harmony and melody.

Importantly, all my original music was composed on the electric bass guitar. I would only later refer to the piano, if required, to confirm harmonic ideas. This was to ensure I would utilize all options available to me on the instrument, with reference particularly to technical and timbral considerations. The exploration of various elements of bass timbre was an important compositional consideration in presenting the electric bass guitar in performance. Utilizing different bass instruments and playing techniques further demonstrated the instruments viability and potential in roles other than conventional. Ensemble timbre was also a consideration; highlighting the similarities and differences between the electric bass guitar and other instruments further developed the discussion. For the final recital I took the position that the instrument should not be subservient, the focus being to subvert the norm.

4.2 Recital One: 18 November 1999

The focus of the first recital was to examine and de-mystify the role and function of the electric bass guitar in Twentieth Century Western popular music. I attempted this by first performing an arrangement of three pieces; two existing works, *Blackbird* (Lennon & McCartney) and *Bye Bye Blackbird* (Dixon & Henderson) and an original composition *The Last Song of the Blackbird* (David Stratton). Other pieces included *Eiderdown* (Steve Swallow) and two further original compositions, *Madeleine* (David Stratton) and *Blues For Oscar* (David Stratton). My performance explored both the role of traditional bass accompanist and extended to that of a melodic and improvisational voice. The instrument used for the entire recital was a Warwick 6-string Streamer Stage 1 electric bass guitar (tuned B, E, A, D, G, and C). The pitch of the lowest note is B 0 (zero), which is generally near the lowest pitch found on a piano, and the highest fretted note is C 5, which is in the upper middle register of a piano, giving the instrument a four octave (and one semitone) range. In addition, by employing natural and artificial harmonics the range is further extended up to C 6 and beyond, which reaches to the upper register of the piano. The extended range of this instrument (a fourth above and below that of a standard four string bass guitar) allows for greater expression, obviously for bass function in the low register, but also for upper register melodic and chordal work and improvisation.

I first performed the arrangement of a musical triptych with an ornithological theme, consisting of *Blackbird* (John Lennon & Paul McCartney), *The Last Song of the Blackbird* (David Stratton) and *Bye Bye Blackbird* (Dixon & Henderson). *Blackbird* is an adaptation of a Jaco Pastorius arrangement from the CD *Word Of Mouth* (1981). *Blackbird* is an unaccompanied piece for electric bass guitar and is structured on an AAB form. The purpose for choosing this piece to open the recital was to establish the viability of the electric bass guitar as a solo instrument. Here the instrument performs melody, harmony and bass function simultaneously. The melody and harmony ascend and descend diatonically while pivoting on an A pedal point supplied by the open A string. This effect is achieved principally by ‘raking’ the index finger across the G, D and A strings, the result being the sounding of a three-note chord.

The Last Song of the Blackbird (David Stratton)

An Arthur Boyd etching of the same name inspired this piece. The etching is seen below. A description of the background to its creation is found in Appendix 3 programme notes, p. 152-4.

Arthur Boyd *The Last Song of the Blackbird* (1996)



Etching 1/40 30cm x 30 cm Reproduced with the permission of the Bundanon Trust

The Last Song of the Blackbird provided an opportunity for the bass to explore a melodic role. The melody, played in unison with saxophone, employs a type of

‘reverse-ostinato’, that is an ostinato in the treble register (see score pages 125-8, CD Appendix 3 track 1). The A section consists of a repetitive 4 bar descending motif in D minor (see Example B) alternating between 5 and 6 notes (A, G, F, E, D & G).

Example B: excerpt from *The Last Song of the Blackbird* (David Stratton)

The image shows two staves of musical notation in treble clef with a key signature of one flat (B-flat). The first staff, labeled 'BAND IN (A)' and 'BASS/SAX UNISON' with a measure number '5', contains a descending melodic motif. Above the staff, the chord progression is indicated as B \flat Δ 7 #11, G M9, B \flat Δ 7 #11, and G M9. The second staff, labeled '9', continues the motif. Above this staff, the chord progression is indicated as B \flat Δ 7 #11, G M9, A M7, and D M.

This melody becomes the anchor as beneath each bar the bass line (supplied initially by the piano) and harmony change to build and create tension over 16 bars. The release from tension arrives at the bridge (B section) with a *pastorale* mood achieved via the use of major 7th chords for improvisation. Tension again builds from bars 32-35 with suspended chords and altered chords (D 11 and D 7th b5th b9th) leading to the returning motif from bar 5. Standard plucking technique incorporating the use of alternating index and middle fingers was used and a subtle chorus added to the bass sound for effect.

To complete the triptych *Bye Bye Blackbird* began as an improvised dialogue between bass and muted trumpet over the chord progression of the song. In this section there was no designation for bass or trumpet to play bass line, melody or harmony, before returning to traditional bass function for bass and melody for trumpet when the ensemble joined in the arrangement. This idea borrows from the Dixieland tradition where two or three horn players improvise collectively over a song form. These two instruments (bass and trumpet), which normally occupy entirely different ranges of pitch could at times cross over due to the extended range of the six string bass. The timbre of each instrument, trumpet with Harmon mute producing a quiet, yet edgy, metallic brightness contrasted noticeably with the mellow and darker qualities of the

electric bass. The freedom allowed by the interplay between the two instruments proved to be quite liberating from a bassist's perspective.

Eiderdown (Steve Swallow)

In this piece the bass function followed convention, in as much as I accompanied the melody, harmony and soloists before taking an improvised solo, then returned to bass function again for a reprise of the melody. The bass line consisted of a "two feel" (two minims per bar) to accompany the melody and a 'walking bass' (four crotchets per bar) for the improvised section. It was stylistically appropriate to produce a mellow sound (approximating that of an acoustic bass) from the instrument. This was achieved by plucking the strings where the neck meets the body, as opposed to plucking above the pickups, which produces a more 'electric' sound. I wanted to feature a composition by an electric bassist other than myself, the purpose being to explore the notion of bassist-as-composer and subsequently further extend my own composition in later recitals.

U.S. musician Steve Swallow is a leading voice in jazz with the electric bass guitar. Swallow again topped the *DownBeat* critics poll in August 2004 with 238 votes, the next bassist, Victor Wooten polling 79 votes (source: *DownBeat*, August, 2004:50). In addition Swallow is a prolific composer who has had many of his compositions performed and recorded by other artists. He often includes transcriptions of his compositions in the liner notes of his CD releases, which encourages other musicians to explore his work. Swallow has often performed or recorded with trios of bass, drums and saxophone. With no chordal instrument present this creates opportunities for an extension of the bass role. This encouraged me to follow a similar path, which I fully investigated in Recital 3.

Madeleine (David Stratton)

This piece features the bass as primary melodic instrument utilising artificial harmonics over the A section. Structured in AABA form (Eb major modulating to C major for B section) the A section melody is divided into two segments, each based on an Eb major pentatonic scale (see score Appendix 1 pages 128-9, CD Appendix 3

track 2). The rhythmic motif (see Example C, bars 8-11) repeats as the phrase descends and a new rhythmic motif with a static syncopated melody (see example C, bars 12-13) is introduced as the bass line descends.

Example C: excerpt from *Madeleine* (David Stratton)

(A) BASS/SAX UNISON

Chord symbols for Example C:
 Eb Δ 9 / Eb9 / Ab Δ 9 F Δ 7 Ab/Bb Eb Δ 9 / Eb9 / Ab Δ 9 / F Δ 7 G7(b9)
 C Δ 7 / Bb/Ab Ab Δ 9 G Δ 7 / Bb/C C9 Db Δ 9 / Ab Δ /Bb /

The subtle use of a chorus effect on the bass highlights the sound of the harmonics for the melody. The bass returns to its conventional bass role for the bridge as saxophone plays the melody, based on a C major scale (see Example D). The structure of the composition is unusual in that the A section is 7 bars and the bridge 5 bars in length. After an improvisation the melody returns at the B section in C major, followed by a modulation to Eb major in the A section. The piece resolves finally in C Major in the coda.

Example D: excerpt from *Madeleine* (David Stratton)

(B)

Chord symbols for Example D:
 C Δ / A Δ 9 C/G F Δ 9 / C Δ /G G C Δ / A7(#5) A7
 F Δ 9 / D Δ 7 G(1009) F Δ 7 / Ab/Bb Bb9

Blues For Oscar (David Stratton)

The bass role in this piece remains one of accompanist, but its influence is pivotal to the design of the composition. A single one bar bass motif underpins the entire piece (see score Appendix 1 pages 130-1, CD Appendix 3 track 3). Based on the twelve bar blues form in Bb, *Blues For Oscar* combines a bass line and melody in dialogue with one another (see Example E). The syncopated bass part is immediately answered, and sometimes overlapped by the melody. The tonality of the piece is outlined in the bass line construction by employing a structure of tonic, fifth and tenth or fifth, tonic and dominant seventh, establishing the harmony before a note is heard from the melody. The tonic Bb bass note is maintained from bars 1-7 to create the dynamic of a pedal point, evident as the harmony shifts to the sub-dominant Eb 7th in bars 2, 5 and 6. This created a tension that is released in bars 12 and 24 via the application of a G 7th chord sidestepping to Ab 7th in bar 9, where the chords follow a cycle of fourths through to Db 7th, F# 7th and B 7th, and finally sidestep back to Bb 7th. The melody is syncopated for effect, particularly during the release of bars 12 and 24 where rhythmic displacement is used and that phrase further displaced again in bars 16 and 28. The rhythmic “feel” of this piece suggests an R & B influence in that the semi quavers are interpreted as a swing or shuffle feel. The bass tone and feel is required to have punch and be dynamic. This is best achieved by plucking the strings over the pickups for maximum attack.

Example E: excerpt from *Blues For Oscar* (David Stratton)

A

5

9

13

In summary, the recital successfully established that the bass can have a multi-functional role within an ensemble, from the unaccompanied solo voice of *Blackbird*, to adding timbral colour to the melody of *The Last Song of the Blackbird*, through to sharing an equal melodic role in *Bye Bye Blackbird*. The performance of Madeleine reinforced this notion adding further colour to the melody via the use of effects and harmonics. *Blues For Oscar* provided evidence of the significant and powerful role the bass line can play compositionally. These experiences led me to further explore the bass in my second recital as both a melodic voice and an instrument whose conventional role was critical to the success of the composition and performance.

4.3 Recital Two: 9 October 2001

This recital further extended the role of bass by developing a melodic focus in contrast to functional bass. The cross-fertilization of art and music provided the

creative impetus for my composition. My intention was to create a situation where I could be inspired directly by specific subject matter and/or environment. I initiated and directed two composing projects inspired by the work of two Australian artists, Arthur Boyd and Kerrie Lester. My collaborators were musicians Michael Bartolomei (piano and keyboard), Graham Jesse (woodwind) and Nicholas McBride (drums and percussion) who collectively, with me, form the group *The Broadcasters*.

In discussion with the group in the role of musical director for the recital, I negotiated the placing of the bass in the foreground, where appropriate both compositionally and in terms of dynamics. This discussion took place early on in the creative process. Both additional compositions by Graham Jesse (*Nebuchadnezzar - Caught in the Forest*) and Michael Bartolomei (*Seeing Stars*) performed during the recital consequently featured the bass sharing the theme with saxophone and/or piano.

The first project, in February 2000 involved a two-week period as artist-in-residence at Bundanon, the home and property of Arthur Boyd. I assembled *The Broadcasters* at Bundanon to compose a suite of music using some of the themes that had inspired Boyd to produce his work. In turn, I hoped we would respond to these influences. Being *in situ* provided an additional benefit, as we had access to Boyd's home, art works and library to conduct background research. I composed several pieces, two of which, *The Descent of Nebuchadnezzar* and *The Fisher Of Men* were featured in Recital 2. The second project began in June 2000 through to August 2000. I coordinated the production of a CD of new music in collaboration with the artist Kerrie Lester for The Broadcasters. The group spent time with Lester discussing her art and influences and responded by producing a ten track CD, each track inspired by a specific painting. My contributions were *Beachwalk* and the title track, *Dumped by a Wave*, pieces also featured in Recital 2. The CD was launched with a live performance surrounded by Lester's paintings at Australian Galleries on 10th August 2000.

For this recital I again used the Warwick 6-string fretted bass as it had the necessary range and timbre I required for the pieces. In order to enhance the experience for the audience during the recital, photographer, Benjamin Huie, projected images of each

painting that inspired the compositions onto a screen. The screen was set to stage left for the audience to view.

The Descent Of Nebuchadnezzar (David Stratton)

The second piece performed for this recital was *The Descent Of Nebuchadnezzar* (David Stratton). Inspiration for the composition was drawn from the painting, *Nebuchadnezzar on fire falling over a waterfall* by Arthur Boyd, a reproduction of which is seen on the following page. This painting comes from a book published in 1972 by Thames and Hudson, entitled *Nebuchadnezzar*, based on a story from the Old Testament. It is a collaborative work with a text by T.R.S. Boase. Boyd created 34 paintings and 18 drawings for inclusion in the book. I read the text and absorbed the images, before responding with my composition. Nebuchadnezzar came to power through many successful military campaigns, including the conquest, capture, enslavement and relocation of the Jewish people to Babylon. Boase describes the story thus:

Intoxicated by the might of his empire, Nebuchadnezzar began to boast of it as his own achievement, created without the aid of God. According to the Bible, the Lord punished him for his presumption by banishing him to the wilderness where, for seven years, he led the life of an animal - exposed to the elements, eating grass, insane (Boase, 1972: dust jacket).

Arthur Boyd's oeuvre often dealt with recurring biblical, mythical and political themes set within a background of the Australian landscape. He used allegory often to convey a message.

In the king's dream, a watcher and a holy one comes down and cries aloud 'Hew down the tree.' This Daniel warns in a pronouncement of doom and the tree symbolizes his own fall. The king falls to his destruction like a flaming meteor and the waterfall that Boyd has imagined below him cannot quench it (Boase, 1972:20).

Arthur Boyd *Nebuchadnezzar on fire falling over a waterfall* (1966 – 68)



Oil on canvas 183.5 cm x 175.9 cm Collection of the Art Gallery of New South Wales
Reproduced with the permission of the Bundanon Trust

Janet McKenzie said of Boyd's collaborative approach:

What the collaborative project achieves, given a scholar of Boase's calibre, is to present Boyd with an abundance of elegantly expressed information, but no prescription or constraint whatsoever. This, as Boase testified, could not have suited Boyd better, as is clear from the vast number of canvases produced of the subject of Nebuchadnezzar after publication. These paintings were affected by Boyd's feeling of repugnance towards the Vietnam War, particularly when

protesters set fire to themselves on Hampstead Heath during the late 1960s (McKenzie, 2000:143)

Boyd went on to collaborate with Australian poet, Peter Porter on four major series of works: *Jonah* (1973), *The Lady and the Unicorn* (1975), *Narcissus* (1984) and *Mars* (1988).

Musically, this piece explores a similar concept to *The Last Song of the Blackbird* in that the bass function is melodic for the A section, but contrasts it by playing a strictly ostinato role for the B section (see score Appendix 1 pages 132-3, CD Appendix 3 track 4 and DVD 1 Appendix 4 12:08). The opening melodic phrase is stated by solo bass in bars 1-5 and joined by unison saxophone during bars 5-9. The B section ostinato features a low register bass line designed as an open-ended repeat for improvisation above by saxophone and piano. While the bass plays no improvisational part in this piece, its strength lays in its melodic role and contrasting pivotal B section. To ensure the melody ‘speaks’ on the instrument it is best to pluck the strings near to or directly above one of the two pickups. This gives the required ‘cut’ to the sound, allowing the bass to blend better with soprano saxophone during the melody. In addition a chorus effect was applied for the melody.

In AAB form the introduction and A section melody share a repetitive rhythmic motif but each is harmonically ambiguous by design (see Example F). With only unison melody and no harmony or bass line present the key centre is not evident. Bars 1-2 suggest Bb Major 7th, bars 2-3 suggest G minor 7th, bars 3-4 suggest Eb Major 7th and bars 4-5 G minor.

Example F: excerpt from *The Descent of Nebuchadnezzar* (David Stratton)



Each five-note grouping establishes a tonality within itself, but every subsequent phrase suggests a new tonality. These cascading, descending phrases are a metaphor for Nebuchadnezzar’s descent and fall from grace.

It is not until bar 10 when piano chords state the tonality and bass resolves to the tonic that a key is firmly established.

The B section, consisting of a two bar bass motif (see Example G), is simple by design to allow the gradual build of tension for improvisation utilizing an A 7th altered chord. These improvisations were intended to reflect the struggle, torment, chaos and horror that Nebuchadnezzar experiences after banishment to the wilderness to live among the beasts. This effect is achieved by the relentless, hypnotic drive of the ostinato bass, coupled with frenetic improvisation. Sandy Evans said “By the bass taking that role (i.e. a repetitive phrase) it opens up a lot of space for the other players to go where they want to go and some people object to having the bass taking that subsidiary role - I don’t, I think its like, what more important thing could you do” (conversation, Evans: 1999).

Example G: excerpt from *The Descent of Nebuchadnezzar* (David Stratton)

The musical score for Example G is presented in two staves. The top staff is the piano part, and the bottom staff is the bass part. The key signature is one flat (B-flat), and the time signature is 12/8. The piano part consists of a single sustained chord, A7#9, which is held throughout the entire section. The bass part features a repetitive rhythmic motif of eighth notes, starting with a quarter rest followed by a dotted quarter note, and then a series of eighth notes. The score is labeled "INTERLUDE (SOLO)" and "A7#9".

Without the bass taking the ‘subsidiary role’ Evans refers to, the improvisations have nothing to build on. This was my specific intention for the composition at that point. The bass became a firm anchor, beginning subtly and increasing in intensity by more aggressively articulating the phrase as each improvisation accordingly increased in intensity. Along with the melodic and rhythmic freedom created for the soloist, it allowed an increased level of rhythmic freedom for the drum kit. The chorus effect on the bass was turned off in this section to maintain as clear and dynamic a tone as possible and was used again for the reprise of the melody.

The Fisher of Men (David Stratton).

This composition was inspired by Boyd's painting *Peter's fish and Crucifixion*, a work painted at Bundanon.

Arthur Boyd *Peter's Fish and Crucifixion* (1993)



Oil on canvas 152cm x 122cm Bundanon Collection. Reproduced with the permission of the Bundanon Trust.

The painting remains a centerpiece in Boyd's studio, left largely untouched since his death. The background to the painting features the Shoalhaven River and Pulpit Rock, a geological feature of the area that became significant in Boyd's oeuvre. There are obvious religious overtones to the theme of the work. It was significant to me to be in the presence of the painting, where it originated and to be able to spend time on the riverbank observing Pulpit Rock. This in turn inspired me to compose a piece with a 'gospel' influence.

Prompted by the sight of fresh fish caught in the river, Boyd made an association with the notion of Christ's apostles, the fishers of men. Religious significance is given to everyday phenomena by echoing the shape of Pulpit Rock with white cloud, thus emphasizing the way it reaches towards infinite space, the heavens. The crucifixion on the riverbank is used by Boyd in previous works... and signifies vulnerability and suffering as well as alluding to the fact that the European culture and Christianity are in relative terms new in the ancient land of Australia (McKenzie, 1994:12).

The bass, with chorus effect added, again plays a unison melody with tenor saxophone and improvises over the song form before returning to conventional bass function for a piano solo (see score Appendix 1 pages 134-6, CD Appendix 3 track 5 and DVD 1 Appendix 4 21:27).

Beachwalk (David Stratton)

Beachwalk was the penultimate piece performed. Kerrie Lester's painting of the same name inspired this composition and is seen over the page. Rather than divulge any specific details or direct stories relating to her creative rationale, Kerrie Lester was happy for us to respond with our own interpretation of the 'story' behind each painting.

The subjects for her paintings are so everyday and banal as to be almost invisible. In her overstatement of the obvious, she celebrates life's simple rituals in which she finds subjects worthy of the closest attention. The appeal of Kerrie Lester's work lies in the way it embodies both the serious and the whimsical, the fleeting and the solid, the wry smile with instant recognition of our own weakness and excesses. She does not need to venture far from inspiration. It is all around her - in the home and the studio, down the street and, in the best Sydney tradition, on the beach (Fry, 1999:3).

Kerrie Lester *Beachwalk* (2000)



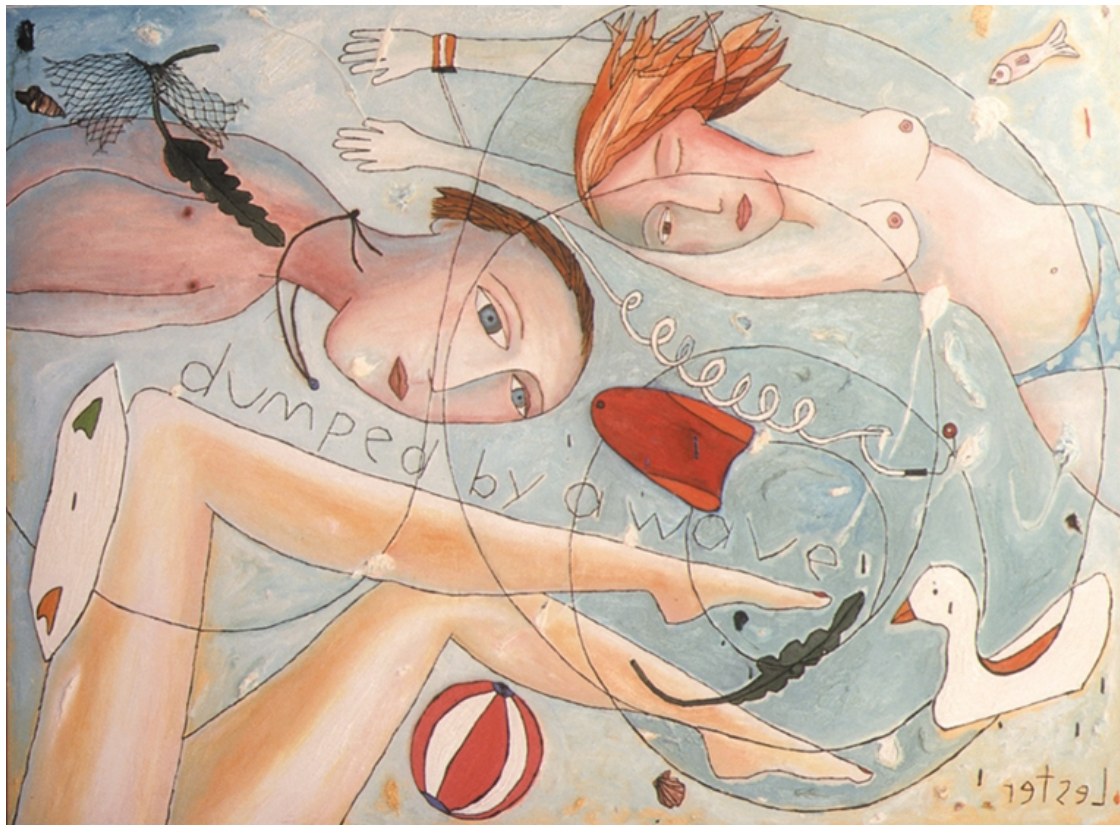
Oil and mixed media on canvas and hand stitching by the artist 122 cm x 184 cm

My composition attempts to create a mood similar to that generated by the painting. Accordingly, simplicity was required to achieve this (see score Appendix 1 page 137, CD Appendix 3 track 6 and DVD 1 Appendix 4 40:34) The bass provides an accompanying role only during the melody, by way of a repetitive tonic to fifth motif. The gentle syncopation of the bass line is intended to add a meditative quality to the music and suggest a subtle Latin (bossa nova) influence. A full, round tone is required from the bass, achieved by playing close to the neck.

Dumped by a Wave (David Stratton)

The final piece for recital 2 was again inspired and named after one of Kerrie Lester's works. *Dumped by a Wave* (David Stratton) is a more melodically and rhythmically animated piece, the title a metaphor for what I interpreted as the disintegration of a relationship.

Kerrie Lester *Dumped by a wave* (1999)



Oil and wood on canvas and hand stitching by the artist 123cm x 168cm

The composition suggests a range of emotions, initially felt in a playful but ultimately tumultuous way (see score Appendix 1 page 138-40, CD Appendix 3 track 7 and DVD 1 Appendix 4 51:11). The piece begins with a synthesizer swell followed by the A section theme (20 bars) featuring a repetitive, syncopated C pedal for the bass as triads pivot above from C to Bb to Db and back to C which creates tension and release. The feel of the piece is rhythm and blues based. The B section (16 bars) moves to a playful feel where the bass provides a walking bass line through a cycle of fourths that is interrupted by a two bar whole tone phrase harmonized in major thirds. This moment has a suggestion of tumult and introduces a tension that leads to the C section (8 bars) featuring a structured question and answer phrase between bass and saxophone with keyboards. At this point the composition implies a three over four phrase that again provides an unresolved tension.

The bass was required to have a direct sound, with clean articulation as befits this style of music. Although the bass does not play a melodic or improvisatory role, the

composed bass line is critical to the success of the composition in a similar way to that of *Blues For Oscar*.

The opportunity to engage with visual art proved to be both a productive and rewarding experience. Each artwork, in itself elicited an immediate response from me, providing a clear direction in terms of the mood and emotion I wanted to convey. While there was obviously no direct collaboration with Arthur Boyd, who had passed away in 1999 and whose *Nebuchadnezzar* series had been painted thirty years prior; the investigation of texts and examples of reproductions and being in the presence of other original works by Boyd all conspired to assist us in our musical response. In the case of Kerrie Lester, whose paintings had only recently been completed, we fortunately had the opportunity to discuss ideas directly with her. Peter Porter said of his collaboration specifically with Boyd:

Arthur and I hardly consulted each other; I simply sent him the poems in batches of threes and fours as they were finished... I was not prepared for the scale and opulence of Arthur's response (McKenzie, 2000:146).

McKenzie recounts Peter Porter's observation of collaboration in general:

Bending one's recalcitrant invention to someone else's need is not just frustrating, it is nearly impossible. Only when I first began to work with Arthur Boyd did I find that there is a fulfilling way of collaborating and that it requires each artist to go his own way, the resultant works being counterpointed rather than harmonized (McKenzie, 2000:131).

I enjoyed the challenge of realizing a musical or aural response to each painting and I suggest that this new music is a counterpoint to, rather than in close harmony with the paintings, although this is an area of subjective opinion. For a future project I would like to engage in a direct creative dialogue with an artist where for example, painting and music are simultaneously inspired by the same circumstance and created side by side. This is in an effort to create a work that is totally harmonious, rather than a work existing as an exercise in counterpoint.

The Bundanon Trust were supportive of my initiative and provided us with a great opportunity via their artist-in-residence program and Kerrie Lester was also very

supportive of the process and pleased with the collective response from *The Broadcasters*. This culminated in the recording and release of a ten-track CD, *Dumped by a Wave*. The CD launch coincided with Lester's exhibition of these paintings plus additional works. *The Broadcasters* performed the entire album *in situ* with the paintings at Australian Galleries on August 10th 2000.

These images enabled me to further expand the bass role, again as both a melodic voice and as a critical support vehicle for the ensemble, so collectively we could express elements of our emotional response to the images. The experience confirmed the viability of the bass in a melodic role, assisted by the ensemble, but it was apparent that to extend the instrument and performer further I decided that I would remove the piano from the group for the final recital. The piano gives a continuous harmonic framework for each piece, providing a 'safety net' of sorts for both the composition and the performers. By removing the safety net, both the composition and performance must be strong in order for the music to survive.

4.4 Recital Three: 16 August 2004

This recital focused on subverting the norm; extending the bass beyond its traditional role of supporting melody, harmony and rhythm to that of an instrument responsible for supplying melody and harmony in addition to bass line and rhythm. Again composition provided the vehicle to further develop this idea. A key factor was my decision to eliminate a chordal instrument from the group for the final recital. While this created challenges it also presented opportunities for the bass to take a more critical role. The bass would now be placed in the foreground with maximum exposure. I used two fretted basses, a Warwick 6-string Steamer Stage 1 and a 4-string Fender Precision, as well as a fretless 5-string Warwick Thumb bass during this recital.

I have always enjoyed listening to and performing with a trio of bass and drums and either a piano, horn or guitar because it allows for more expression for the group and places greater responsibilities on each member, particularly for a trio with no chordal instruments (most commonly bass, drums and saxophone). In this situation chords can be implied as only generally two notes are heard at any one time, unless the bassists is

playing double or triple stops. This allows the listener to fill in the gaps left by the occasional harmonic ambiguity. In addition there is a greater sense of space provided around the music. There have been many classic trios in rock including *Cream*, *Jimi Hendrix Experience*, *Rush* and *The Who* (technically a quartet including a vocalist, but consisting of three instruments) and many recordings of jazz trios, most notably those by *Bill Evans*, *Duke Ellington*, *Oscar Peterson*, *Keith Jarrett*, *Pat Metheny*, *John Scofield*, *Dave Holland*, *Charlie Haden* and *Steve Swallow*. It is the bassist who perhaps has the most to gain by exploring this instrumentation. Typically a saxophone will follow the path of melody/improvisation/melody. The drums can expand rhythmic concepts due to the increase of available space, but the bassist is free to explore melody, countermelody, harmony and extended rhythmic ideas in addition to bass function. This provides additional challenges and rewards for the listener.

Tribeca (David Stratton)

The opening piece for the final recital was *Tribeca*. It was composed for a trio of saxophone, bass and drums (see score Appendix 1, pages 141-2; CD Appendix 3 track 8; and DVD 2 Appendix 4, 3:00) The song form is AABA and features a three bar rhythmic sequence on which the melody is based. Consequently at the beginning of each four bar phrase the rhythm sequence is displaced by a bar (see Example H). Bass and saxophone perform the harmonized melody. This compositional idea was inspired by the work of bassist Steve Swallow, who similarly places importance on rhythmic motif in his composition and additionally enjoys performing in trios, where he is liberated to explore and expand the role of the bass.

Example H: excerpt from *Tribeca* (David Stratton)

♩=188

A1 SWING



5

A2

9

13

The introduction to the piece begins with an improvisation by the bass (see Example I), which begins with a melodic statement utilizing natural harmonics. I thought it would be an effective introduction to build a small melodic idea using the extreme top range of the bass, beginning with a C 5, up to C 6, before returning to a more conventional range to improvise for a 32 bar sequence over the chord progression before bringing the saxophone and drum kit in.

Example I: Bass introduction to *Tribeca* (David Stratton)

The musical score is presented in five systems, each with a measure number at the beginning:

- System 1: Measures 1-4. Marked **RUBATO** and *Natural Harmonics*. The right hand plays a melodic line with natural harmonics, while the left hand is silent.
- System 2: Measures 5-8. Marked **Normale**. The right hand continues the melodic line, and the left hand remains silent. A **TRAM.** instruction is at the end of the system.
- System 3: Measures 9-14. Both hands enter with rhythmic accompaniment.
- System 4: Measures 15-20. Continuation of the rhythmic accompaniment.
- System 5: Measures 21-24. Continuation of the rhythmic accompaniment, ending with a final chord.

For the improvisation section after the melody is stated, rather than agree to have a designated sax solo followed by bass solo which would be considered the ‘norm’, my idea was to have the bass and saxophone engage in a dialogue where they could respond to each other. The drums are also encouraged to participate in this dialogue. The following transcription (Example J, CD Appendix 3 track 8, 3:38) gives a unique

indication of a ‘role reversal’, where the saxophone plays a bass line while the bass continues to improvise freely.

Example J: Bass and saxophone improvisation in *Tribeca* (David Stratton)

Ultimately no one instrument was directed to take the lead role. This experience revisits the idea I initiated in my first recital, where trumpet and bass established a dialogue over the chord progression for *Bye Bye Blackbird* in the Dixieland tradition.

Conversations with Myself (medley: David Stratton, Horace Silver, Alfred Ellis & Charles Calhoun, arranged by David Stratton)

This piece provided an opportunity for me to create a ‘dialogue’ between a live performance with a pre-recorded multi-bass backing track. To achieve this I first prepared a recording of bass lines as a quasi-historical survey of styles from early Twentieth Century Dixieland jazz through to recent trends in ‘ambient’ music. With the live recital performance and studio recording over the pre-recorded track my intention was to incorporate a range of melodies, harmonies and improvisations (see CD Appendix 3 track 9 and DVD 2 Appendix 4, 9:58). The title of this piece is borrowed from an album by pianist, Bill Evans (*Conversations With Myself*: 1963). On this album Evans laid down a basic track of piano improvisations of standard repertoire and overdubbed a second take of piano, in dialogue with the first track.

Timbral considerations were important in this survey. For stylistic authenticity I recorded the backing track performing with tuba, acoustic bass and various electric bass guitars, employing a range of techniques. The piece began with a tuba part based on the harmonic progression of *Down by the Riverside* (Traditional) followed by acoustic bass on *The Preacher* (Horace Silver), a basic 12 bar blues sequence, a Be Bop 12 bar blues sequence, and a rock 'n roll 12 bar blues based on *Shake, Rattle and Roll* (Charles Calhoun). The transition to electric bass began with a rhythm and blues feel over chord changes for *The Chicken* (Alfred Ellis) where I utilized a 1972 Fender Precision bass. The piece continued with a 24 bar blues with a straight 8th note pop feel, again where I used a pick while applying a palm-muting technique. Next was a 24 bar blues-rock shuffle using finger-style technique on a Warwick 6-string Stage 1 fretted bass guitar, and then on to a 16th note funk feel. *Conversations With Myself* concluded with a contemporary modal improvised piece featuring a Warwick 5-string fretless Thumb bass using a delay and chorus effect.

For my live recital performance and studio recording of the 'dialogue' I used a Warwick 6-string Stage 1 fretted bass guitar for all but the final contemporary modal section, where I improvised using the fretless bass guitar. My intention was that the melodic, harmonic and improvised ideas should be stylistically appropriate and authentic. For example, I used relatively simple triadic motifs for *Down By The Riverside*, *The Preacher* and the basic 12 bar blues, before introducing slightly more sophisticated rhythmic and melodic ideas over the Be Bop 12 bar blues sequence. Melody and simple chordal work were introduced in *Shake Rattle and Roll*, *The Chicken* and 24 bar blues 8th note sequence. I then improvised using primarily blues scale ideas over the 24 bar blues-rock shuffle, then on to a slap solo over a 16th note funk feel, and finish with a chorused fretless bass guitar incorporating harmonics, slides and double stops, as well as single note melodies during the improvisation.

Misty (Errol Garner & Johnny Burke)

This arrangement for unaccompanied 4 string electric bass guitar followed the example set by Jaco Pastorius' solo bass arrangements, where Pastorius extended the possibilities of an instrument that has previously been seen as limited. This was achieved by incorporating a range of techniques including double stops, triple stops,

natural and artificial harmonics to realize melody, harmony and bass line (see score Appendix 1, pages 143-4; CD Appendix 3 track 10; and DVD 2 Appendix 4, 19:33). Bassists often use the keys of E, A or D major that allow them the opportunity to use open strings for pedal points or drone effects. This piece remains in the standard male vocal key of Eb major, as conveniently natural harmonics found on D and G strings form an Eb Major 7th chord with a fretted Eb bass note.

Two Part Intervention (David Stratton)

My focus was to compose a classical music interplay inspired by the work of J.S. Bach, the title being a play-on-word, after J.S. Bach's Two Part Inventions (see score Appendix 1, pages 145-6; CD Appendix 3, track 11; and DVD 2 Appendix 4, 22:54). Two instruments not commonly associated with that form - tenor saxophone and electric bass guitar were used for the recital, and the CD contains a studio recording of the piece performed on a 1972 Fender Precision bass. Both parts share equal responsibility for bass function as well as melody, harmony and rhythm. This was the first point in the three recitals where, through specific notation, each instruments part was pre-determined. In effect *Two Part Intervention* was a scripted dialogue, whereas *Bye Bye Blackbird* and *Tribeca* were both an improvised dialogue.

Darkness and Light (Matthew Doyle & David Stratton)

The didjeridu and bass instruments share a similarity in that both are capable of fulfilling the role of bass function by providing a fundamental pitch or drone. However, the use of a fretless bass guitar introduces a timbral sympathy with the didjeridu. The fretless bass can achieve a tone commonly referred to as a 'growl', particularly with the use of round wound strings. The bass string reacts to the fingerboard differently as there are no frets present. The attack of the note is less pronounced without the metal-to-metal contact of string and fret, thus allowing the note to swell, creating the 'growl'. This gives the fretless bass guitar a darker, woody quality and this I believe makes it an instrument particularly sympathetic to the timbre of the didjeridu (see CD Appendix 3 track 12 and DVD 2 Appendix 4, 27:00).

The didgeridu has a number of roles in traditional Aboriginal music. Peter Dunbar-Hall summarized those roles identified by Trevor Jones (Jones, 1980:462) as, “a drone, as a provider of tone colour, as a rhythm instrument, as a supplier of introductions, interludes and codas to songs, and as an issuer of elaborate coded signals” (Dunbar-Hall, 1997:70). Dunbar-Hall noted six uses for the didgeridu in his own survey of recordings by contemporary Aboriginal pop groups:

(1) as a referential effect; (2) as a drone; (3) as an antiphonal effect in conjunction with voices; (4) as a member of the rhythm section of rock groups; (5) as a soloist in the instrumental solo sections of rock songs; and (6) as the focus of rock instrumental pieces (Dunbar-Hall, 1997:70).

Dunbar-Hall concludes that the uses for the didgeridu in contemporary Aboriginal popular music groups are not that dissimilar to the traditional uses (Dunbar-Hall, 1997:84). However there have been some examples of compromises made. In the late Twentieth Century the didgeridu made its presence felt in the pop/rock genre. There have been examples where the instrument in this context has been made to comply with the requirements of that music. Steven Knopoff observed with reference to the indigenous group Yothu Yindi that:

the use of the didgeridu is made to conform to the performance protocol and aesthetics of the pop/rock genre in several ways: by the subdued presence of the fundamental tone in the overall mix; post-recording re-tuning of the didgeridu’s pitch; avoidance of the blown overtone; heavy reliance upon the use of vocal shrieks for rhythmic fills; and the use of a strictly metronomic rhythmic feel (Knopoff, 1997:50).

It was an important cultural consideration for me was to avoid an environment where the didgeridu would have to compromise or comply in order to ‘fit’ into the music. I discussed my enthusiasm for the instrumental combination of didgeridu and fretless bas guitar with didgeridu player Matthew Doyle, who reciprocated. We agreed to meet to explore the musical and cultural viability of creating music for these two instruments, with a view to collaborating in the area of composition and performance for this recital. During the first of two meetings after several phone calls, Matthew Doyle and I established that common ground was found between fretless electric bass guitar and didgeridu. Fortunately Matthew Doyle owned a didgeridu with a fundamental pitch of ‘B’, coinciding with the low string of my Warwick 5-string

fretless Thumb Bass. This allowed us to provide a fundamental pitch for each other, so roles could easily be exchanged, one essentially providing fundamental pitch and rhythm while the other could explore other melodic and rhythmic devices. The first overtone (or ‘hoot’) of Doyle’s didjeridu was an E pitch that again matched the E string of my bass. This allowed us to work around two key centres. Before our second meeting I composed several melodic devices that served as a springboard for extrapolating into an improvisation and could also serve as signposts for what would ultimately become our final composition and performance. During the course of our second meeting Doyle and I experimented with a range of rhythmic, melodic and harmonic ideas. The composition took form quickly when we settled on appropriate melodic devices.

We experimented with variations in timbre, rhythm and melody in order to convey a range of moods or emotions. During our conversation and improvisation the words ‘light’ and ‘dark’ were used to describe the atmosphere created by the blending of timbre and melody. This evolved as a principal idea, eventually becoming the title of the first of two collaborative pieces, *Darkness and Light* (Matthew Doyle & David Stratton).

Darkness and Light was composed with the notion that the didjeridu was the foundation instrument and that the musicians who performed it (Matthew Doyle and David Stratton) would explore commonalities between the instruments. The fundamental tone (pitch) of the didjeridu was pivotal to the piece and was featured, rather than subdued, as was the fundamental tone (pitch) of the fretless bass guitar. The didjeridu’s blown overtone was used as a signal, or call within the piece, which is a common device employed with the instrument and the didjeridu was free to improvise rhythmically. In a sense, these elements concur with Jones’ description of traditional usage of the instrument. In consideration of a traditional approach, Matthew Doyle did not have to modify his playing to accommodate the fretless bass guitar.

The piece evolved into an A, B, C, A form. The notation for the performance was unconventional in that I essentially wrote a series of instructions on manuscript that included three notated musical phrases (see example K for *Darkness and Light* cue

sheet). These phrases were the introduction, the main theme and a sign-off phrase. This manuscript effectively became a cue sheet. Following is an example used for the recital with track timings for important transitions from the CD recording (CD Appendix 3 track 12).

Example K: *Darkness and Light* cue sheet

A section

Introduction: Harmonics over B7 (00:02)

Musical notation for Introduction: Harmonics over B7 (00:02). The notation consists of two staves in treble clef with a key signature of three sharps (F#, C#, G#) and a common time signature (C). The first staff contains a melodic line with slurs and accents over the notes G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4. The second staff contains a similar melodic line with slurs and accents over the notes C4, D4, E4, F#4, G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4. The word 'SIMILE' is written below the second staff.

'B' pedal note from didjeridu and bass (00:30)

Main theme: electric bass 'Light' (00:56)

Musical notation for Main theme: electric bass 'Light' (00:56). The notation consists of two staves in treble clef with a key signature of three sharps (F#, C#, G#) and a common time signature (C). The first staff contains a melodic line with slurs and accents over the notes G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4. The second staff contains a similar melodic line with slurs and accents over the notes C4, D4, E4, F#4, G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4.

Electric bass pedal - didjeridu rhythmic development (01:45)

Melodic improvisation (02:05)

Sign-off (02:39)

Musical notation for Sign-off (02:39). The notation consists of one staff in treble clef with a key signature of three sharps (F#, C#, G#) and a common time signature (C). The staff contains a melodic line with slurs and accents over the notes G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4.

B section

Didjeridu rhythmic extrapolation, electric bass pedal 'E' (02:52)

Didjeridu hoot 'E' (04:25)

Main theme down a tone - minor tonality 'Darkness' (04:30)

C section

Harmonic glissando (04:55)

Didjeridu throat effects - descending long notes from electric bass (05:30)

Didjeridu singing - F#, G and A (06:35)

Electric bass harmonics - G, F#, G, A etc. (06:43)

A section

Harmonics over B7 - Electric bass (07:00)

I decided not to use any effects on the bass, in order to keep a clean and dry sound, matching that of the didjeridu. This allowed me to explore timbres on the bass including vibrato, glissando and in particular natural harmonics with glissando, both up and down which introduced a different device, unused in the previous recitals.

When one listens to a didjeridu in close proximity, the sound of the performers breathing is evident, as is the sound resonating from the whole instrument. When a didjeridu is recorded or amplified, generally a microphone is only placed at the end of the instrument. In effect this is only a part of the sound. Kev Carmody raised an interesting issue on the topic of recording didjeridu where he explained that the breathing patterns of the didjeridu player were as much a part of the overall pattern

and sound of a performance. It is as important as the sound emanating from the end of the instrument.

I thought it would be interesting just to see the rhythmic variation you can get if we put a microphone up at his nose (John Lacy: didjeridu player on *Bloodlines* CD, 1993: Larrikin), so you can get the breathing, that's rhythm too. Breath is just as important as the sound coming out of the end. That's what the old fellow told me. And it's amazing the difference that songs took on by recording the sound of the nose breathing in the air. It just made a completely different textural content to the music, which is exciting. I'd like to do that on stage myself but it's usually too difficult (Carmody, 1997:15).

Rarely, if at all, have producers or engineers placed a microphone near the player's head, where the sound source begins, to capture the rhythm and tone being generated. In contrast, is not uncommon to record an acoustic bass with two microphones, one for the sound coming from the body and the second placed near the top of the neck or fingerboard in order to capture the sound of strings being pulled and slapped against the fingerboard, which is part of the characteristic of the instrument. Electric bass guitars are often simultaneously recorded from two sources, via a D.I. box and a bass amplifier in order to capture a range of tones.

For the performance of *Darkness & Light* we placed a microphone at the base of the didjeridu. This was successful mostly because the piece involved only two instruments and the performance space was intimate. I was satisfied that the subtle timbral and rhythmic variations Matthew Doyle was employing were audible to the audience.

Frederick St. (David Stratton)

This piece was composed specifically to combine standard bass function and harmony concurrently, in a style influenced by Brazilian guitar music (see score Appendix 1, pages 147-8; CD Appendix 3 track 12; and DVD 2 Appendix 4, 36:55). The techniques employed include 'hammering' to provide a bass line and 'tapping' in the upper register to provide harmony; a style normally associated with guitarist Stanley Jordan and bassist Abraham Laboriel. The form is AABA, the A section based on the

chord changes from *Take The 'A' Train* (Duke Ellington) and *The Girl From Ipanema* (Antonio Carlos Jobim).

6/4 Blues (Matthew Doyle & David Stratton)

The penultimate piece from the recital, *6/4 Blues* was the second collaborative composition. Its genesis sprang from a traditional didgeridu rhythm Matthew Doyle had suggested (see Example K) during a rehearsal. Coupled with a didgeridu pitched in F, this created a basis for a blues melody, rhythm and improvisation that explored polyrhythms associated with a 12/8 metre, where both a pulse of six and four can be implied (see score Appendix 1, page 149; CD Appendix 3 track 14; and DVD 2 Appendix 4, 41:33), hence the title, *6/4 Blues*. With Doyle providing fundamental pitch and rhythm, the bass was freed from its obligation of supply a tonal centre. This provided an opportunity for the bass to focus on outlining harmony and melody.

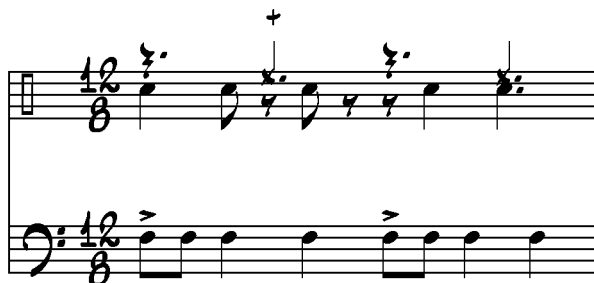
Example K: Matthew Doyle's rhythmic pattern



The melody became a question and answer dialogue between saxophone and bass and the rhythm a dialogue between didgeridu and drums (see Example L).

Example L: Drum kit and didgeridu pattern

Drumkit pattern



Didgeridu pattern

With best intentions in rehearsal the bass, saxophone and drum kit played with sensitivity and worked towards a balance with the didgeridu, which was amplified through a P.A (public address) system. An agreeable balance was achieved between all instruments. In performance however, the subtle rhythmic nuances played by Matthew Doyle were somewhat lost. The introduction to the piece featured didgeridu and drum kit playing twice through the 12 bar form of the melody. Matthew Doyle's rhythmic work was evident here, but as saxophone and bass entered and the dynamics increased, the subtle detail of the didgeridu was overshadowed. In hindsight I would have investigated the option of placing a microphone or pick up on the top end of the didgeridu, as Kev Carmody has suggested, in order to amplify the additional rhythms and timbres being generated. The inconspicuous radio microphones (e.g. *Sennheiser MKE Platinum-4-3-C*) typically worn on the head or upper body by music theatre performers may well provide a solution to capturing a more accurate didgeridu sound live and in the recording studio.

'Prelude' from *Cello Suite No.1* (J.S. Bach)

This unaccompanied piece demonstrates a perfect compositional balance of melody, harmony and rhythm (see CD Appendix 3 track 15 and DVD 2 Appendix 4, 48:08). The CD features a studio recording. In performance, I strived to balance the parts, bringing out the melodic lines, where required.

The intention of 'subverting the norm', in relation to bass function was achieved during this recital. The absence of a chordal instrument created openness that musicians in general, and bassists specifically, are not normally accustomed to. As a result the bass was automatically exposed, becoming a featured instrument positioned in the foreground, where there was no 'mystery' surrounding its role. New composition again provided a vehicle to explore and express a wide range of options relating to timbre, range and technique. The incorporation of the didgeridu added a completely new set of challenges to consider. Matthew Doyle's enthusiasm for the idea of combining didgeridu and fretless bass was gratifying. His compositional input took me to areas of form and texture I hadn't previously considered. With the added performance pressure of an instrument exposed, there were a few moments where my bass performance was less than perfect, but ultimately this recital proved to be the

most challenging of the three and perhaps the most rewarding as a composer and performer.

Chapter 5

Summary

Chapter 5: Summary

The electric bass guitar, like its predecessor the acoustic bass, has a critical dual role to play in popular music and jazz, providing support for rhythm, harmony and melody. Paradoxically it remains an inside instrument, its role a mystery to many. My aim has been to de-mystify the instruments role, expand its function and explore its potential by composing and performing new work, researching into the background of the instruments development and exploring the techniques of the innovators of the bass.

Perceptions and misconceptions of bass

As the bass has a dual function, so too has the word acquired a dual function. I have defined and clarified the meaning of the word 'bass' and discovered that it has its origins in the Late Latin word 'bassus'. 'Base' is derived from the same word. These two words with distinct meanings subsequently have come to overlap. Similarly, I have applied a dual function to the role of the bass in performance. As the basis of my composition for my recitals, I have performed with the instrument both in a conventional bass role and as a featured instrument, leading the ensemble.

There are culturally entrenched negative perceptions of the instrument, the history of which dates back to the Eighteenth Century. Edwards (1974) suggested the bass and viola shared a similar problem where poorly written parts encouraged poor playing that further perpetuated poor writing for the instrument. These perceptions continue to 'dog' the instruments progress. Within this problematic situation lays the answer. Increasing the challenges by composing material that extends the technical, textural and timbral demands of bass players will gradually help the electric bass guitar and its practitioners to be seen in a more profound context. Only then can the bass fulfill its potential and no longer be seen as the instrument that is assigned to the weakest guitarist in the band, or as McCartney said, the instrument 'the fat guy in the group nearly always played.... and stood up the back.'

With my composing, recital performances and through my writing I have worked towards breaking down and removing these negative stereotypes. I have challenged

the resistance to the electric bass guitar in jazz, arguing that there is no basis for this resistance, especially given that the spirit of the music is founded on the notion of freedom of expression. The resistance seems to be based largely on the notion that because the sound of the bass is generated electronically, it is therefore not 'authentic'. However my experiment with recording and analyzing sampled bass notes proved that the similarities between the acoustic bass and electric bass guitar are greater than the differences. I would like to suggest that opportunities exist to further research this problem. A larger survey amongst jazz musicians and analysis of recordings and performances should reveal a more detailed understanding of why the electric bass guitar is considered problematic in jazz.

Innovators and their influence

The three most significant guitarist-as-bassists, Carol Kaye, Joe Osborn and Paul McCartney each developed unique and original styles. Their bass tones filled the airwaves across the world from the early 1960s to the mid to late 70s (and continue to do so). It would be impossible for a bassist not to have been influenced in some way by their sound and style considering the large number of hits recorded by these musicians. They were highly influential in my approach to bass playing. Although I only occasionally use a pick, the melodic ideas and the increased use of tenor register pursued by these three bassists has inspired me from when I first picked up the bass guitar.

Bassists wield significant power within a group, and many are perhaps unaware of its uniquely subversive nature. Changing a single note can completely undermine the harmony, causing a chord to collapse on itself. It is a responsibility to wield this power carefully. Because of this, in effect the bass player is 'imprisoned' by a duty to fulfill his or her obligations to the harmony, melody and rhythm. However, more and more bassists have found ways to subvert the norm, most notably with James Jamerson and Jaco Pastorius. It is the 'pioneering spirit' of stylist like Jamerson and Pastorius that place the bass to the foreground of the music, creating a greater awareness of the instruments potential.

Although James Jamerson came from the acoustic bass tradition, his creative use of syncopation was unique to him, and also could not have gone unnoticed by even a person with only a passing interest in popular music of the 60s and 70s. The self-titled solo album released by Jaco Pastorius in 1976 effectively redrew the line for what was thought achievable with the electric bass guitar. Through his recording and touring with *Weather Report* and Joni Mitchell, Pastorius's approach to bass playing forced every electric bassist to rethink their role within the ensemble. His unique fretless bass timbre and application of chords and harmonics created a legion of 'clones'. The 'Pastorius sound' began to permeate popular culture. Pastorius has had a significant effect on my approach to the instrument subsequently. Inevitably I spent time during my formative years listening closely to, and transcribing his bass lines in order to analyze and incorporate some of those ideas into my own playing. This proved to me that the electric bass guitar could be more active rhythmically and melodically, yet still provide a bass function. The bass guitar became a more engaging proposition as an instrument. Through learning about Pastorius it encouraged me to investigate those who influenced him, most noticeably James Jamerson and Jerry Jemmott.

There is a lineage of bass players who have inspired the next generation. Jazz acoustic bassist Paul Chambers inspired Jerry Jemmott and James Jamerson, who inspired Jaco Pastorius, who in turn provided inspiration for me. It is important to continue the lineage that has evolved through the Twentieth Century into the Twenty-first Century. Future research could be undertaken as a survey, through transcription and analysis of the evolution of bass lines through the Twentieth Century (in greater detail than I have had the opportunity too). This could reveal a wealth of new information and perhaps indicate where the future of bass function may be heading while also giving a broader view of the impact of the electric bass guitar in popular music.

The bass as an instrument is generally not viewed by composers as being an obvious choice to feature as a solo instrument. Because it is unlikely they will invited by anyone else to do so, bassist have to create their own opportunities by composing, directing and performing in their own ensembles. An important lineage of bassist-as-composer has evolved as a result of this, which has had considerable impact in the advancement of bass function. In jazz Oscar Pettiford, Charles Mingus, Charlie Haden, Steve Swallow, Jaco Pastorius and Dave Holland have directed important

ensembles and composed works that have led to the progression of bass playing and advancement of the music form. Similarly in pop and rock Paul McCartney, Jack Bruce, Geddy Lee, Sting and Les Claypool have made great contributions to the music and the development of the instrument. These musicians have had the courage to step forward with their bass instruments and made certain their music was heard. Each of these bassists, composers and leaders (among others) have had an influence both conceptually and stylistically in my own composing and performing throughout my career, but particularly during my recitals.

Steve Swallow is one of very few electric bass guitarists in jazz. His playing has had an influence on me for 25 years and in my first recital I featured his composition *Eiderdown*. In that performance I tried to achieve the mellow and round tone Swallow is noted for, as well as clearly defining the harmony throughout the improvisation, another Swallow 'trademark'. Again in the final recital Steve Swallow's composing and playing style was the influence for my composition, *Tribeca* (CD Appendix 3, track 8). The subtle influence of Charlie Haden and Sting, who are known to be minimalist in terms of the number of notes they may play in a bass line or solo, gave me pause to reflect on the importance of economy, of making each note count - minimum notes for maximum effect. It was also the vigorous rhythmic bass lines of Jaco Pastorius and Les Claypool, and the tenor register melodic runs of Paul McCartney and Jack Bruce that inspired me to look for other ways to express melody and counter melody with the electric bass guitar. All of these influences at some point converged and contributed to my search for a new language during the course of my investigation. This allowed me to engage in a new dialogue with my fellow ensemble members. A more detailed survey into the impact of the bassist-as-composer in contemporary popular music and jazz would be of benefit in further understanding of the role of bass.

Innovation and motivation

During my candidature I used the 'jazz' model for the majority of my composition and performance as this allowed for improvisation. I utilized a range of bass instruments, from tuba and acoustic bass, through to fretted 4-string and 6-string electric bass guitars and a 5-string fretless bass guitar. During the course of the three

recitals I varied the instrumentation for timbral effect, incorporating trumpet, saxophones and flute, piano and synthesizers, drum kit, percussion and didjeridu. These instruments were used in a variety of combinations with the bass, as well as the bass being featured as a solo instrument on occasion. My use of fretless Warwick 5-string Thumb bass with a chorus effect is an obvious example of the Pastorius influence, but primarily the timbral effect of emphasizing mid-range frequencies of the bass, particularly when playing a melody or soloing, is a permanent legacy of the Pastorius influence. Examples of this are found in *The Last Song Of The Blackbird*, *Madeleine*, *The Descent Of Nebuchadnezzar* and *The Fisher Of Men* (CD Appendix 3, tracks 1, 2, 4, and 5). Examples of the application of chords and harmonics, also characteristics of Pastorius are found in the introduction of *Tribeca* and the full arrangement of *Misty* (CD Appendix 3, tracks 8 and 10 respectively).

The definitive design for the electric bass guitar came from Leo Fender in 1951. With a few modifications, Fender effectively used an exploded diagram of the template from his successful Broadcaster/Telecaster electric guitar, released in 1950. While the use of new technology and new materials in bass building have played a crucial role in the developing 'sound' of the electric bass guitar, no technology can yet replace the fact that a large part of the sound of the bass comes from the players themselves. One must have a concept of what constitutes a 'good' bass sound before this can be realized through an instrument, and have this supported by an accurate playing technique. No amount of expensive equipment can replace this.

Each of the basses used for my recitals and recordings were chosen because of a unique aspect to their timbral character. When I required a clean, bright sound, where harmonics needed to be emphasized, the Warwick 6-string Stage 1 Streamer bass was my choice. However the Precision bass Leo Fender designed more than 50 years ago still has a place in contemporary music. I featured a 1972 Fender Precision bass on two bass tracks during *Conversations with Myself* (medley: David Stratton, Horace Silver, Alfred Ellis & Charles Calhoun, arranged by David Stratton) and as a featured solo instrument with *Misty* (Errol Garner & Johnny Burke), an accompanying instrument on *Frederick St.* (David Stratton) and solo instrument again with the 'Prelude' *Cello Suite No. 1* (J.S. Bach) (CD Appendix 3, track 9 at 2:28 and 3:09 and tracks 10, 13 and 16 respectively). This bass was chosen because it has a rich, warm

tone that I felt best suited these compositions. The fretless Warwick 5-string Thumb bass was used where I required a slower attack to the note, or wanted a growling effect or sliding chords and harmonics found in *Conversations with Myself* and *Darkness & Light* (Matthew Doyle & David Stratton) (CD Appendix 3, track 9 at 5:30 and track 12 respectively).

In this project I have had an opportunity to re-consider what the role of the bass is, and ask what more can it offer. The project was designed by me to work towards the breaking down of the musical and cultural stereotypes that continue to impose limitations and conventions on bass players and to explore different approaches to bass function within the ensemble and as a solo instrument. I began by providing the bass with an opportunity to observe the traditional role, but then move to the foreground so the instrument can not only engage in a greater a dialogue with instruments within the ensemble, but also lead the conversation without compromising the musical structure. The notion of dialogue is of key importance.

Traditional and convention dictate that the bass 'speaks' both low in pitch and volume. The electric bass guitar gave bassists the opportunity to speak out musically - to have a greater presence within the music. While this was embraced by some, others resisted it. Quincy Jones described the electric bass guitar as having an 'imposing sound' that 'ate up so much space' occupied by other instruments. The players of those instruments didn't like the fact that they were losing their space. In effect the new bass became pivotal in the creation of a new language. This new language and its associated dialogue didn't fit in with, nor was understood by the conventional musical 'conversations' going on between instruments. This was an example of 'noise' impacting on the 'order', a subverting of the norm. Other instruments were forced to reconsider what they were 'saying'.

Additionally I created a cross-cultural dialogue and a cross-disciplinary dialogue during the course of my investigation. Through combining didgeridu with electric bass guitar I have endeavored to create a historical and cultural link between two uniquely different instruments, one ancient and one contemporary, with origins from two vastly different cultures to emphasize the common bond they share. Composers in the past have drawn inspiration from artwork, so while not a new concept, it was unique in

this situation in that the art of Kerrie Lester and Arthur Boyd provided the impetus for composition and performance on the electric bass guitar.

For the bass the future will remain bright as long as the dialogue continues to evolve with other instruments. I have endeavored to refresh the way people perceive the bass and add to the dialogue through my research, my composition, my directing and performance. The future is in the hands of the next collective of bass innovators. Their task is to assert themselves by re-defining the role of the bass, creating original music and techniques that challenge the conventions currently defining and confining the instruments role. While I don't advocate bass anarchy, I am suggesting bass players take the initiative and expand their voice in the context of music-making. The best vehicle to use is composition. Creating opportunities for oneself by composing, directing and performing music that provides an opportunity for the bass to move to the foreground, rather than remain in the background is the direction to take. This will ensure a better understanding of, and appreciation for the potential of the electric bass guitar amongst ones peers and the wider audience. This is the vehicle I chose to pursue in this project and in my career as a musician.

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Appendix 1

Scores and lead sheets

1.1 <i>The Last Song Of The Blackbird</i> (David Stratton, 1999)	125
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THE LAST SONG OF THE BLACKBIRD

♩=120 HALF TIME FEEL

Composed & Arranged by DAVID STRATTON

Musical staff for 'OPEN PIANO IMPROVISATION' in 4/4 time, featuring a treble and bass clef with a key signature of one flat.

Musical staff with notes and chords: $B^b \Delta 7 \# 11$ (8va), $G M9$, $B^b \Delta 7 \# 11$, $G M9$. Measure 1 is indicated below the staff.

Musical staff with notes and chords: $B^b \Delta 7 \# 11$, $G M9$, $B^b \Delta 7 \# 11$, $G M9$. Includes a 'BAND IN' box and 'BASS/SAX UNISON' label. Measure 5 is indicated below the staff.

Musical staff with notes and chords: $B^b \Delta 7 \# 11$, $G M9$, $A M7$, $D M$. Measure 9 is indicated below the staff.

Musical staff with notes and chords: $G M9$, $A M7$, $B^b \Delta 7 \# 11$, $A M11$. Measure 13 is indicated below the staff.

Musical staff with notes and chords: $B^b \Delta 7 \# 11$, G/B , F/C , $A/C\#$. Measure 17 is indicated below the staff.

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B SAX IMPROVISATION

Handwritten notation for saxophone improvisation, measures 20-23. Includes a treble clef, a key signature of one flat, and a handwritten $E\flat\Delta$ chord symbol above the first measure. The bass line is written in the bass clef. Measure 20 starts with a whole note chord $E\flat\Delta$ in the treble clef. The bass line consists of a series of eighth notes: $B\flat$, A , G , F , E , D , C , B . Measures 21, 22, and 23 contain repeat signs.

Handwritten notation for saxophone improvisation, measures 24-27. Includes a treble clef, a key signature of one flat, and a handwritten $E\Delta$ chord symbol above the first measure. The word "SIMILE" is written below the first measure. The bass line is written in the bass clef. Measure 24 starts with a whole note chord $E\Delta$ in the treble clef. The bass line consists of a series of eighth notes: $B\flat$, A , G , F , E , D , C , B . Measures 25, 26, and 27 contain repeat signs.

Handwritten notation for saxophone improvisation, measures 28-31. Includes a treble clef, a key signature of one flat, and a handwritten $A\flat\Delta$ chord symbol above the first measure. The bass line is written in the bass clef. Measure 28 starts with a whole note chord $A\flat\Delta$ in the treble clef. The bass line consists of a series of eighth notes: $B\flat$, A , G , F , E , D , C , B . Measures 29, 30, and 31 contain repeat signs.

Handwritten notation for saxophone improvisation, measures 32-35. Includes a treble clef, a key signature of one flat, and a handwritten $7(b9)$ chord symbol above the first measure. The word "END SAX IMPROVISATION" is written above the fourth measure. The bass line is written in the bass clef. Measure 32 starts with a whole note chord $7(b9)$ in the treble clef. The bass line consists of a series of eighth notes: $B\flat$, A , G , F , E , D , C , B . Measures 33, 34, and 35 contain repeat signs.

Handwritten notation for guitar accompaniment, measures 36-39. Includes a treble clef, a key signature of one flat, and chord symbols $G\Delta9$, $A\Delta7$, $B\flat\Delta7\sharp11$, and $A\Delta11$ above the staff. The bass line is written in the bass clef. Measure 36 starts with a whole note chord $G\Delta9$ in the treble clef. The bass line consists of a series of eighth notes: $B\flat$, A , G , F , E , D , C , B . Measures 37, 38, and 39 contain repeat signs.

Handwritten notation for guitar accompaniment, measures 40-43. Includes a treble clef, a key signature of one flat, and chord symbols $B\flat\Delta7\sharp11$, G/B , F/C , $A/C\sharp$, and $D\Delta$ above the staff. The bass line is written in the bass clef. Measure 40 starts with a whole note chord $B\flat\Delta7\sharp11$ in the treble clef. The bass line consists of a series of eighth notes: $B\flat$, A , G , F , E , D , C , B . Measures 41, 42, and 43 contain repeat signs.



OPEN IMPROVISATION

Musical staff for measure 44, featuring a treble clef and a key signature of one flat. The staff contains a bass line with notes G2, B1, D2, and G2. Chord symbols above the staff are Gm9, Am7, BbΔ7#11, and Am11.

44

Musical staff for measure 48, featuring a bass clef and a key signature of one flat. The staff contains a bass line with notes Bb2, Δ7#11, C(1009), Am7, and Dm.

48 SIMILE

Musical staff for measure 52, featuring a bass clef and a key signature of one flat. The staff contains a bass line with notes Gm9, Am7, BbΔ7#11, and Am11.

52

Musical staff for measure 56, featuring a bass clef and a key signature of one flat. The staff contains a bass line with notes BbΔ7#11, G/B, F/C, and A/C#.

56



Musical staff for measure 59, featuring a bass clef and a key signature of one flat. The staff contains a bass line with notes EbΔ and three measures of rests indicated by double slashes.

59

Musical staff for measure 63, featuring a bass clef and a key signature of one flat. The staff contains a bass line with notes CΔ and three measures of rests indicated by double slashes.

63

Musical staff for measure 67, featuring a bass clef and a key signature of one flat. The staff contains a bass line with notes AbΔ and three measures of rests indicated by double slashes.

67

Musical staff for measure 71, featuring a bass clef and a key signature of one flat. The staff contains a bass line with notes G11 and G7(b9), and two measures of rests indicated by double slashes.

71

F

75



79

G

83



87

H

91



95

MADELEINE

♩=60

PIANO INTRO

Composed by DAVID STRATTON

Chords: Eb^Δ9 / Eb⁹ / Ab^Δ9 / F#7 Ab/Bb Eb^Δ9 / Eb⁹ / Ab^Δ9 / F#7 G7(b9)

Chords: Cm7 / Bb/Ab Ab^Δ9 / G#7 / Bb/C C⁹ / Db^Δ9 / Ab⁶/Bb /

A BASS/SAX UNISON

Chords: Eb^Δ9 / Eb⁹ / Ab^Δ9 / F#7 Ab/Bb Eb^Δ9 / Eb⁹ / Ab^Δ9 / F#7 G7(b9)

Chords: Cm7 / Bb/Ab Ab^Δ9 / G#7 / Bb/C C⁹ / Db^Δ9 / Ab⁶/Bb /

B Chords: C^Δ / A#9 C/G F^Δ9 / Cb/G G C^Δ / A7(b9) A7

Chords: F^Δ9 / D#7 G(Ao9) F#7 / Ab/Bb Bb⁹

C Chords: Eb^Δ9 / Eb⁹ / Ab^Δ9 / F#7 Ab/Bb Eb^Δ9 / Eb⁹ / Ab^Δ9 / F#7 G7(b9)

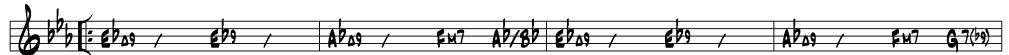
Chords: Cm7 / Bb/Ab Ab^Δ9 / G#7 / Bb/C C⁹ / Db^Δ9 / Ab⁶/Bb /

RALL LAST TIME TO ♯

MADÉLEINE

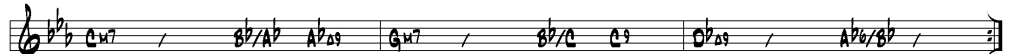
SOLOS

27



Chord progression for measures 27-30: EbD9 / Eb9 / AbD9 / F#m7 Ab/Bb / EbD9 / Eb9 / AbD9 / F#m7 G7(b9)

31



Chord progression for measures 31-33: Cm7 / Bb/Ab AbD9 / Gm7 / Bb/C C9 / DbD9 / Ab6/Bb

34



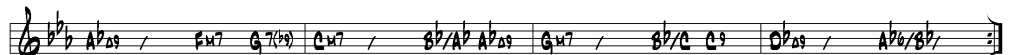
Chord progression for measures 34-37: C#m / Am9 C/G / F#m9 / C#m/G G / C#m / A7(b9) A7 / F#m9 / Dm7 G(m9)

38



Chord progression for measures 38-41: F#m7 / Ab/Bb Bb9 / EbD9 / Eb9 / AbD9 / F#m7 Ab/Bb / EbD9 / Eb9

42



Chord progression for measures 42-45: AbD9 / F#m7 G7(b9) / Cm7 / Bb/Ab AbD9 / Gm7 / Bb/C C9 / DbD9 / Ab6/Bb

C.S. AL COCA



C#m9

BLUES FOR OSCAR

Composed & Arranged by DAVID STRATTON

♩=90

10TH SHUFFLE

B♭7

DRUMS INTRO

Musical notation for the drums intro section, consisting of two staves (treble and bass clef) in 4/4 time. The first three measures contain a drum pattern of eighth notes. The fourth measure contains a melodic line in the treble clef.

A

Musical notation for the first system of the blues progression, consisting of two staves. The first staff has a melodic line with eighth notes. The second staff has a bass line with eighth notes. Chords are indicated below the bass line: B♭7, E♭7, B♭7, B♭7.

5

Musical notation for the second system of the blues progression, consisting of two staves. The first staff has a melodic line with eighth notes. The second staff has a bass line with eighth notes. Chords are indicated below the bass line: E♭7, E♭7#11, B♭7, G7 ALT.

9

Musical notation for the third system of the blues progression, consisting of two staves. The first staff has a melodic line with eighth notes. The second staff has a bass line with eighth notes. Chords are indicated below the bass line: A♭7, D♭7#11, E♯7, B7(b9).

13

BLUES FOR OSCAR

B **8**

17

21

25

C

OPEN IMPROVISATION

29

33

(D.S. AL CODA)

37

D

CODA

DRUMS

41

THE DESCENT OF THE NEBUCHAONEZAR

Composed & Arranged by DAVID STRATTON

♩. = 60

SOLO BASS

WITH TENOR SAX

SOLOS

Musical staff with bass clef, key signature of two flats, and 8/8 time signature. Chords: Gm7, Ebm7, Gm / A7#9, Dm, Bb, Gb.

26

Musical staff with bass clef, key signature of two flats, and 8/8 time signature. Chords: E11, E7#9, Eb9 Gb9 Bb9, Ebm Gb, Eb9 Gb, Eb9 Gb.

33

OPEN SOLO UNTIL CUE

AFTER LAST SOLO D.S. AL CODA
NO REPEAT

Musical staff with treble and bass clefs, key signature of two flats, and 12/8 time signature. Chords: A7#9, followed by repeat signs. Treble clef contains a coda symbol.

38

Musical staff with treble clef, key signature of two flats, and 6/8 time signature. Chords: Ebmin Gb, Eb9. Ends with a double bar line and the word FINE.

42

THE FISHER OF MEN

Composed by DAVID STRATTON

♩=120 PIANO INTRO

Musical staff 1: Treble clef, key signature of two flats (Bb, Eb), 3/4 time signature. Chords: Bb, Db13, C9, Gb7.

Musical staff 2: Treble clef, key signature of two flats. Chords: Bb/F, C7/E, EbΔ, Ab9. Measure 5 is indicated below the staff.

Musical staff 3: Treble clef, key signature of two flats. Chord: Gm7. Measure 9 is indicated below the staff.

Musical staff 4: Treble clef, key signature of two flats. Section A starts at measure 13. Chords: Gm, Gm/F, Gm/E, Eb. Measure 13 is indicated below the staff.

Musical staff 5: Treble clef, key signature of two flats. Chords: Gm, Gm/F, Gm/E, Eb13. Measure 17 is indicated below the staff.

Musical staff 6: Treble clef, key signature of two flats. Chords: Dm, Eb7, Dm, Db7#11. Measure 21 is indicated below the staff.

Musical staff 7: Treble clef, key signature of two flats. Chords: Dm, Eb7, Em7, Dm11. Measure 25 is indicated below the staff.

Musical staff 8: Treble clef, key signature of two flats. Chords: Cm7, F7#9, Bb, Db13. Section B starts at measure 29. Measure 29 is indicated below the staff.

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THE FISHER OF MEN

33 C9 Gb7 Bb/F C7(9)/E

37 Eb9 Ab9 TO ϕ \square Gm7 %

41 Gm7 % Gm7 %

45 Gm7 % \square SOLOS USE INTERLUDE BETWEEN EACH THEN % Gm Gm/F

49 Gm/E Eb Gm Gm/F

53 Gm/E Eb13 Dm Eb7

57 Dm Db7(11) Dm Eb7

61 Em7 Dm11 Cm7 F7(9)

65 Bb Db13 C9 Gb7

69 Bb/F C7/E Eb9 Ab9

-INTERLUDE-

73

77

(D.S. AL CODA)

81

RALL -----

BEACH WALK

Composed & Arranged by DAVID STRATTON

♩ = 110

$E\flat\Delta_9$ $D\flat\Delta_9$

C^{\flat} $B\flat^{\flat}$

$E\flat\Delta_9$ $D\flat\Delta_9$

$A\flat\Delta_7+4$ F/G G^9

$B\flat\Delta_9$ $C7$ $A7(\flat9)/C\sharp$ $D\flat M7$ F/G

$B\flat\Delta$ $E\flat 7$ $A\flat\Delta$ $D\flat 7(\sharp 11)$ C^{\flat}

$B\flat^{\flat}$ $E\flat\Delta_9$

$D\flat\Delta_9$ $A\flat\Delta_{11}$ TO Φ

C^{\flat} $B\flat^{\flat}$ $E\flat^{\flat}$ $A\flat\Delta_7\sharp 11$

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DUMPED BY A WAVE

♩=80 16TH SHUFFLE FEEL

Composed by DAVID STRATTON

SLOWLY

A TEMPO

SYNTH PAD SWELL

C11 C9 C7

A

3

SIMILE

7

B

11

15

SIMILE

19

© D. STRATTON 2000

C

To CODA SOLO PICKUP

22

D SOLOS

26

31

36

40

44

47

O.S. AL CODA

50

4

E REPEAT TIL CUE

C C7ALT C7ALT Eb7ALT C7ALT C7ALT Eb7ALT

54

TIL CUE

CUE

C7ALT C7

FINE

♩=188

TRIBECA

Composed & Arranged by DAVID STRATTON

A1 SWING

Musical notation for measures 1-4 of section A1. The score is in 4/4 time with a key signature of two flats (Bb and Eb). The melody in the treble clef starts on a whole note G4, followed by a half note A4, a quarter note Bb4, and a quarter note A4. The bass line in the bass clef starts on a whole note G3, followed by a half note A3, a quarter note Bb3, and a quarter note A3.

Musical notation for measures 5-8 of section A1. The melody continues with a quarter note G4, a quarter note A4, a quarter note Bb4, and a quarter note A4. The bass line continues with a quarter note G3, a quarter note A3, a quarter note Bb3, and a quarter note A3.

5

A2

Musical notation for measures 9-12 of section A2. The melody starts with a quarter rest, followed by a quarter note G4, a quarter note A4, a quarter note Bb4, and a quarter note A4. The bass line starts with a quarter rest, followed by a quarter note G3, a quarter note A3, a quarter note Bb3, and a quarter note A3.

9

Musical notation for measures 13-16 of section A2. The melody starts with a quarter note G4, a quarter note A4, a quarter note Bb4, and a quarter note A4. The bass line starts with a quarter note G3, a quarter note A3, a quarter note Bb3, and a quarter note A3.

13

B

Musical notation for measures 17-20 of section B. The melody starts with a quarter note G4, a quarter note A4, a quarter note Bb4, and a quarter note A4. The bass line starts with a quarter note G3, a quarter note A3, a quarter note Bb3, and a quarter note A3.

17

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Musical notation for measures 21-24, featuring a treble and bass clef with a key signature of one flat and a 4/4 time signature. The melody consists of quarter and eighth notes, while the bass line features a steady eighth-note accompaniment.

21

AB

Musical notation for measures 25-28, continuing the melody and bass line from the previous system. The notation includes various note values and rests.

25

Musical notation for measures 29-32, concluding the main melodic phrase. The final measure is marked with a fermata and the word "FINE".

29

FINE

SOLOS

Chord progression for measures 33-40. The sequence of chords is: F, Gm7, C7, Am7, Dm7, Gm7, C7. A first ending bracket spans the last two measures.

33

Chord progression for measures 41-44. The sequence of chords is: Gm7 / C7 / F, followed by a double bar line, then Bb and E7b9.

41

Chord progression for measures 45-52. The sequence of chords is: Am, E7b9, Am7, D7, Dm7 G7, Gm7 C7, F.

45

Chord progression for measures 53-56. The sequence of chords is: Gm7, C7, Am7, Dm7, Gm7 / C7 / F / / / . The final measure is marked "D.C. AL FINE".

53

AFTER SOLOS

D.C. AL FINE

MISTY

for Solo Electric Bass Guitar

Composer: Errol Garner
Arranger: David Stratton

Harmonics used in this piece:

◊ - Natural Harmonic

Bar 1 - G⁴ natural harmonic found above G fretted note
Bar 33 - C^b natural harmonic found above C^b fretted note
G^b natural harmonic found above G^b fretted note

◊ - Artificial Harmonic

Played as a "touch-fourth" harmonic where the fundamental (written) is played and the perfect fourth above is "touched" to produce a harmonic note sounding one octave higher.

RUBATO A1

A2

8

18

22

A3

26

30

TWO PART INTERVENTION

Composed & Arranged by DAVID STRATTON

$\text{♩} = 80$

Measures 1-4 of the score. The music is in 4/4 time with a key signature of two flats. The upper staff features a melody with quarter and eighth notes, while the lower staff provides a rhythmic accompaniment with eighth and sixteenth notes. A first ending bracket is present under the first measure of the lower staff.

Measures 5-8 of the score. The upper staff continues the melodic line, and the lower staff maintains the accompaniment. A first ending bracket is present under the last measure of the lower staff.

Measures 9-12 of the score. The upper staff has a more active melodic line with eighth notes. The lower staff has a simpler accompaniment. First ending brackets are present under measures 10, 11, and 12 of the lower staff.

Measures 13-16 of the score. The upper staff features a complex melodic line with many sixteenth notes. The lower staff has a steady accompaniment. A first ending bracket is present under the first measure of the lower staff.

Measures 17-20 of the score. The upper staff has a simple melodic line. The lower staff has a steady accompaniment. A box labeled "TO CODA" is placed above the final measure of the upper staff.

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Musical score for measures 21-24. The score is in 2/4 time and features a treble and bass clef. The melody in the treble clef consists of eighth and sixteenth notes, while the bass clef provides a simple harmonic accompaniment with quarter and eighth notes.

21

Musical score for measures 25-28. The score continues with similar melodic and harmonic patterns. A circled instruction **(D.C. AL CODA)** is placed above the final measure of this system.

25

Musical score for measures 29-32. A circled symbol is placed above the first measure. The score includes dynamic markings *p* and *mf*. The instruction **GRAD. CRESC.** is written below the first measure, and **mf** is written below the third measure.

29

Musical score for measures 33-36. The score concludes with a **MOLTO RIT.** marking above the final measure and a circled **FINE** marking at the end of the piece.

33

FREDERICK ST.

Composed & Arranged by DAVID STRATTON

LATIN $\text{♩} = 88$

A $F\Delta$ G^9

$G^{\#9}$ C^9 $F\Delta$

B $D7$ $G7$

$C7$ $F\#9$

$D7$ $G7$

$C7$ $F\#9$

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FREDERICK ST.

25

Musical staff 1: Treble clef, key signature of one flat, starting at measure 25. Chords: F# (measure 25), G9 (measure 26).

29

Musical staff 2: Treble clef, key signature of one flat, starting at measure 29. Chords: G#9 (measure 29), C9 (measure 30), F# (measure 31). Ends with "To CODA" and a double bar line with a diamond symbol.

SOLO OVER FORM
THEN (C.C. AL CODA)

33

Musical staff 3: Treble clef, key signature of one flat, starting at measure 33. Chords: F# (measure 33), G9 (measure 34).

37

Musical staff 4: Treble clef, key signature of one flat, starting at measure 37. Chords: G#9 (measure 37), C9 (measure 38), F# (measure 39). Ends with "FINE".

6/4 BLUES

Composed & Arranged by MATTHEW DOYLE
& DAVID STRATTON

♩. = 130

Musical staff 1: Treble clef, 6/4 time signature, key signature of one flat. Chord: F9. Measure numbers 1-4.

Musical staff 2: Treble clef, 6/4 time signature, key signature of one flat. Chords: Bb9/F, F9. Measure numbers 5-8.

Musical staff 3: Treble clef, 6/4 time signature, key signature of one flat. Chords: C9/F, Bb9/F, F9. Measure numbers 9-12. Ends with a double bar line and a circled cross symbol.

SOLOS

Musical staff 4: Treble clef, 6/4 time signature, key signature of one flat. Chord: F9. Measure numbers 13-16. Contains rhythmic slashes for solo.

Musical staff 5: Treble clef, 6/4 time signature, key signature of one flat. Chords: Bb9/F, F9. Measure numbers 17-20. Contains rhythmic slashes for solo.

Musical staff 6: Treble clef, 6/4 time signature, key signature of one flat. Chords: C9/F, Bb9/F, F9. Measure numbers 21-24. Contains rhythmic slashes for solo. Ends with a circled cross symbol and the text "AFTER LAST SOLO (D.C. AL CODA)".

Musical staff 7: Treble clef, 6/4 time signature, key signature of one flat. Chords: C9/F, Bb9/F, F9. Measure numbers 25-28. Starts with a circled cross symbol.

Musical staff 8: Treble clef, 6/4 time signature, key signature of one flat. Chords: C9/F, Bb9/F, F9. Measure numbers 29-32. Starts with a circled cross symbol. Ends with a circled cross symbol and the text "FINE".

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Appendix 2

Recital 1

Master Of Arts (Honours) Recital One
David Stratton
Performance Space, Building O., Kingswood Campus
UWS Nepean
Thursday 18 November, 2pm



Arthur Boyd *The Last Song Of The Blackbird* 1996 Ed. 1/40 30 x 30 cm.
Arthur Boyd's work reproduced with the permission of Bundanon Trust.

David Stratton
2 pm Thursday 18th November 1999

THE BROADCASTERS

Piano - Michael Bartolomei
Drums - Andrew Gander
Woodwind - Graham Jesse
Trumpet - Paul Panichi
Bass - David Stratton

Program

1. A musical triptych:
 - (a) 'Blackbird' - John Lennon and Paul McCartney, Northern Songs, 1968.
 - (b) 'The Last Song Of The Blackbird' - David Stratton, 1999.
 - (c) 'Bye Bye Blackbird' - Mort Dixon and Ray Henderson, Warner Bros. Inc., 1926.
2. 'Eiderdown' - Steve Swallow, Wonderbuns, 1969
3. 'Madeleine' - David Stratton, 1987.
4. 'Blues For Oscar' - David Stratton, 1998.

A feature of today's recital will be the examination of the function of bass in 20th Century Western popular music: in a traditional accompanist role and as a melodic and soloist voice.

The first item presented is a musical triptych with an 'ornithological' theme featuring **Blackbird**, **The Last Song Of The Blackbird** and **Bye Bye Blackbird**. Throughout history man has attached symbolic meaning to all manner of things, animal, vegetable and mineral. The Blackbird is symbolic of many things itself.

Blackbird, by Paul McCartney, was composed at his farm in Scotland in 1968. People have attached several meanings to the lyric. In a bootleg recording²⁶ of sessions while McCartney was producing the 'Postcards' L.P. for Mary Hopkin, Paul is playing the song to fellow pop star Donovan suggesting, tongue in cheek, he had Diana Ross (from the Supremes) in mind when composing the lyric. Paul takes up the story, "The original inspiration was from a well-known piece by Bach, which I never knew the title of, which George (Harrison) and I had learned to play at an early age; he better than me actually. Part of its structure is a particular harmonic thing between the melody and the bass line which intrigued me. Bach was always one of our

²⁶ '20x4' - The Beatles bootleg L.P., Ruthless Rythmes, 1979.

favourite composers; we felt we had a lot in common with him. For some reason we thought his music was very similar to ours and we latched on to him amazingly quickly. We also liked the stories of him being the church organist and whopping this stuff out weekly, which was rather similar to what we were doing. We were very pleased to hear that.

I developed the melody on guitar based on the Bach piece and took it somewhere else, took it to another level, then just fitted some words to it. I had in mind a black woman, rather than a bird. Those were the days of the civil-rights movement, which all of us cared passionately about, so this was really a song from me to a black woman, experiencing these problems in the States; 'Let me encourage you to keep trying, to keep your faith, there is hope.' As is often the case with my things, a veiling took place so, rather than say 'Black woman living in Little Rock' and be very specific, she became a bird, became symbolic, so you could apply it to your particular problem.

This is one of my themes: take a sad song and make it better, let this song help you. 'Empowerment' is a good word for it. Through the years I have had lots of wonderful letters from people saying, 'That song really helped me through a terrible period.' I think that the single greatest joy of having been a musician, and being in the Beatles, is when those letters come back to you and you find that you've really helped people. That's the magic of it all, that's the wonder, because I wrote them with half an idea that they might help, but it really makes me feel very proud when I realise that they have been of actual help to people."²⁷

Blackbird has been recorded and released at least 128 times²⁸ by artists ranging from Crosby, Stills & Nash and Nina Simone, through to Jose Feliciano and Chet Atkins. This arrangement of Blackbird is based on a solo bass track²⁹ recorded by Jaco Pastorius, where the 'A' string is used as a drone string while two-note chords move in an ascending/descending diatonic motion.

The Last Song Of The Blackbird is an original instrumental composition inspired by an Arthur Boyd etching from 1996 of the same name. I first saw it in November 1998 at an exhibition at Australian Galleries in Sydney and was immediately moved by the image.

During 1996 when Boyd was in Australia after being honoured as Australian of the Year, he completed a series of 16 etchings entitled *The Prodigal Son*. After Boyd's return to the U.K., printmaker Diana Davidson completed 45 editions of each of the plates. Stuart Purves, Boyd's friend, dealer and owner of Australian Galleries had the prints boxed up in 3 wooden crates and flew to London with Davidson to meet Boyd to have the prints signed at their apartment in Ovington Square. It was during the signing process that Boyd created the 'Blackbird' image. Purves was with the artist

²⁷Barry Miles- 'Paul McCartney -Many Years from Now', Secker & Warburg, London 1998, pp 485-486.

¹28All-Music Guide-Website.

²⁹Jaco Pastorius- 'Word of Mouth' L.P., Warner Bros., 1981.

when Boyd etched into the copper plate, creating the staves at the top of the image. Purves recounted the story of the creation of this work in an interview³⁰.

“We made a time for him (Boyd) to come and meet us in London and we thought it might take a couple of days for the signing; well we sort of got pencil drunk really because there were hundreds of prints literally and it took a long time; we had to unpack them, sort them, make sure they were right, get the approval, move them over for signing, make sure we were getting the numbers in order etc. etc. etc..... and so Arthur, I could see, was really getting bored with it because it wasn’t creative and Diana and I had a bit of a chat; we actually just by chance took across with us a couple of plates (copper plates for dry point etching) ...we said to Arthur, ‘why don’t you take a break from signing ...and you can do some work on some plates.’”

Boyd started working upon the plates but wasn’t getting anywhere, so to break the momentum of the signing, suggested they should set up outside in Ovington Square, to which Boyd agreed. They carried the dining room table out across the street into the Square. Boyd was then frustrated by the etching instruments. Purves continues, “We went back to the apartment, we got all the knives and forks we possibly could, we got a pair of tongs, we even broke things in half... to try and get jagged edges; we sort of doubled the cutlery and made it useless!” Boyd then asked for some darning needles to etch with. Purves walked down to the Harrods haberdashery department and returned with the darning needles. “That actually worked perfectly because Arthur then held them together and used them and scratched away and started to do this drawing of the sea ...that began a little series that he did which ended up being called *The Old Man Of The Sea*.”

The following day they returned to the Square with two final plates and darning needles. Purves continues, “the next day when the time came to suggest the plates, he seemed to strike an absolute chord and he was talking about his grandchildren and their love music and how pleased he was that they were creative.... and weren’t in the same field of painting and drawing, and as he started to talk about this he drew the lines at the top which became (the staves)... where you actually hang the notes...then he did this wailing figure, which is a sort of archetypal figure...which is grand father time, looking up at a bird which was looking sort of sorrowfully at this line of music, almost like the world is so interested in greed and hedonism that music was really the last hopeIt was like the absolute joy of life disappearing for toys and this bird, which of course represented nature and freedom, is looking at this with absolute despair, because it’s like its voice going because the forests are going as well...and Arthur said ‘well I wonder what we’ll call this’ and it just sort of moved around and then somebody said ‘blackbird’.... I can remember Arthur looking up with this really impish, disarming, knowing, wise smile saying ‘the last song’, so it was known as *The Last Song of the Blackbird*. So really it’s about a plea for life itself and for the sanity and to gather the sanity to make the world back into an Eden and a Paradise which it began.”

In one of life’s strange coincidences, I finally sat down over the long weekend in April to complete the composition, putting pen to paper for an upcoming recording:

³⁰Stuart Purves interview-recorded 14/10/99 at Australian Galleries, Paddington, Sydney.

on the Monday morning news services reported Arthur Boyd had passed away over the weekend.

This arrangement features the unison melody of electric bass and tenor sax, with full ensemble.

Bye Bye Blackbird is a song that has spanned several generations. It has retained its popularity till today. For young students of jazz, it is an essential part of the repertoire. The song became a 'standard' long ago, as is evident when one examines the number of times it has been recorded (216) since it was first composed in 1926, and by such a wide variety of artists including Mel Torme, Sarah Vaughan, Joe Cocker and even Ringo Starr and Tiny Tim. Miles Davis has recorded 12 versions of the tune on albums spanning a good length of his career.³¹

The lyric to the song suggests the 'blackbird' (which some see as symbolic of darkness or bad luck) could be symbolic of the depression (the song was written in 1926), where the subject is saying 'goodbye' to hard times; or it could simply be about the leaving of an unhappy relationship to return to a former relationship.

This arrangement features an improvised interplay between electric bass and muted trumpet followed by the ensemble.

Eiderdown is an instrumental composition by Steve Swallow, a popular jazz bassist and composer, who in the late 1960's broke with tradition, when he fell in love with a Gibson electric bass at the NAMM³² trade show and left his acoustic bass behind. He was to become a great innovator and stylist on the new instrument, playing it with a pick using a guitarists approach. The tune was first recorded in 1965 on drummer, Pete La Roca's album 'Basra', featuring Joe Henderson on Tenor sax and a young Steve Swallow on acoustic bass. It was next recorded on a famous album, 'Paris Encounter', featuring Gary Burton on vibraphone and Stephane Grappelli on violin, as well as Swallow on electric bass. It has been recorded at least 16 times³³ by artists including Stan Getz, Bill Evans and Jack DeJohnette and was recorded in May 1998 on a new release by Lee Konitz, 'Three Guys', featuring Konitz on alto sax, Paul Motian on drums and Swallow on electric bass. It is a very open sounding album, with no chordal instruments.

The arrangement begins with full ensemble, then a breakdown to an improvisation of drums on the form, followed by a build of instrumentation and dynamic, to a final return to the melody.

Madeleine is an original instrumental composition written in 1987 as a response to the birth of my first child, and dedicated to her. The arrangement features unison electric bass/tenor sax melody, with support from the ensemble.

Blues for Oscar is an original instrumental composition based on a 12 bar blues form, written in 1998 and dedicated to a friend, Oscar Read (then 2 years old, now 3).

³¹ All-Music Guide website

³² National Association of Music Merchants.

³³ All-Music Guide Website.

When we visited Oscar and his parents one day, Oscar was happily dancing away to a quite modern sounding jazz recording. I have attempted to capture the feel and rhythm of the moment of the children dancing by giving the composition a jaunty melody with a funk-type rhythm bed. The chordal structure of the last four bars of the blues 'side steps' the traditional 2-5-1 (turnaround) sequence by using a b7-b3- b6-b2 progression, giving it an unexpected resolution.

I would like to thank Professor Michael Atherton and Leonie Palermo for their guidance and support in putting this program together; Graham Jesse, Michael Bartolomei, Andrew Gander and Paul Panichi for their wonderful musicianship; David Chalker from the Bundanon Trust for granting permission to use the image of Arthur Boyd's *The Last Song Of The Blackbird*; and in particular, Stuart Purves from Australian Galleries for being so giving of his time and generous with support materials.

Special thanks goes to Chantelle, Madeleine, Jemima, Adelaide and Freddie for their support and staying out of Daddy's way when he needs to get some work done!

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Recital 2

Master of Arts (Honours) Recital Two

**Performance Space
Building O
UWS Nepean**

**Tuesday 9th October 2001
7pm**

Candidate: David Stratton

Featuring The Broadcasters

The Broadcasters

David Stratton: Electric Bass

Michael Bartolomei: Piano

Graham Jesse: Woodwind

Craig Naughton: Drums

The Broadcasters will perform original music by David Stratton, Michael Bartolomei and Graham Jesse. The music featured is inspired by paintings from the Australian artists Arthur Boyd and Kerrie Lester.

The Program

Part 1

1. *Nebuchadnezzar - Caught in the Forest* (composed by Graham Jesse)
2. *The Descent of Nebuchadnezzar* (composed by David Stratton)
3. *Fisher of Men* (composed by David Stratton)

Part 2

4. *Seeing Stars* (composed by Michael Bartolomei)
5. *Beachwalk* (composed by David Stratton)
6. *Dumped by a Wave* (composed by David Stratton)

Part 1

Along with Sidney Nolan, Arthur Boyd is probably the most internationally recognised Australian artist of the 20th century. Boyd's oeuvre dealt with many recurring biblical, mythical and political themes set within a background of the Australian landscape. He used allegory often to convey a message.

In 1999 I successfully applied for an artist-in-residence program at Bundanon (Boyd's property on the Shoalhaven river which, along with a substantial collection of art, was gifted to the nation). With The Broadcasters, I spent two weeks in February 2000 at Bundanon composing and recording; the result being nine pieces, three of which are presented this evening. The focus of the new work was to examine and research some of the themes explored by Boyd *in situ* and respond accordingly with music.

Boyd had been deeply disturbed by the Vietnam war in the 1960's and when a group of people used self-immolation as a protest on Hampstead Heath (nearby Boyd's London home), Boyd used the Old Testament story of Nebuchadnezzar, king of Babylon as a theme to demonstrate his outrage at the situation. Nebuchadnezzar came to power through many successful military campaigns, including the conquest, capture, enslavement and relocation of the Jewish people to Babylon. 'Intoxicated by the might of his empire, Nebuchadnezzar began to boast of it as his own achievement, created without the aid of God. According to the Bible, the Lord punished him for his

presumption by banishing him to the wilderness where, for seven years, he led the life of an animal - exposed to the elements, eating grass, insane.’¹

Boyd continued painting the Nebuchadnezzar theme for several years culminating in the collaboration on a book in 1972 with text by the distinguished art historian and former Vice-Chancellor of Oxford University, T.R.S. Boase, and 18 drawings and 34 paintings by Boyd, simply entitled ‘Nebuchadnezzar’.

In tonight’s program the first two pieces are a response to the downward spiraling journey of Nebuchadnezzar. The third piece is a response to a work created at Bundanon in 1993, dealing with yet another Biblical theme.

1. *Nebuchadnezzar - Caught in the Forest* (composed by Graham Jesse)

2. *The Descent of Nebuchadnezzar* (composed by David Stratton)

Inspired by *Nebuchadnezzar on Fire Falling over a Waterfall*, 1968. ‘In the king’s dream, a watcher and a holy one comes down and cries aloud ‘Hew down the tree.’ This Daniel warns in a pronouncement of doom and the tree symbolizes his own fall. The king falls to his destruction like a flaming meteor and the waterfall that Boyd has imagined below him cannot quench it.’²

3. *Fisher of Men* (composed by David Stratton)

Inspired by *Peter’s fish and crucifixion*, 1993.

‘Prompted by the sight of fresh fish caught in the river, Boyd made an association with the notion of Christ’s apostles, the fishers of men. Religious significance is given to everyday phenomena by echoing the shape of Pulpit Rock with white cloud, thus emphasising the way it reaches towards infinite space, the heavens. The crucifixion on the riverbank is used by Boyd in previous works..... and signifies vulnerability and suffering as well as alluding to the fact that the European culture and Christianity are in relative terms new in the ancient land of Australia.’³

Part 2

Kerrie Lester is a Sydney artist who exhibits at Australian Galleries. Lester has been a finalist in the Archibald prize 12 times and a ‘runner up’ on four occasions. I was looking for a painter to collaborate with and Stuart Purves (director of Australian Galleries) suggested Kerrie and I get together and discuss the possibility of a collaboration of painting and music and have a combined exhibition. Kerrie works to, and is inspired by many forms of music and after listening to a demo recording agreed to the proposal.

The result is a CD of ten tracks (*Dumped by a Wave* - LaBrava LB00013), named and inspired by Kerrie’s paintings. Kerrie has a highly individual technique, hand stitching the canvas with string to outline the image, creating a striking definition.

¹ T.S.R. Boase, ‘Nebuchadnezzar’, Thames & Hudson, London, 1972, endnotes.

² *Ibid*, p.20

³ Janet McKenzie, *Arthur Boyd*, Australian Galleries, 1994, p.12.

Lester also uses a word or a phrase, which in effect, is the title of the painting and became the title of each of our compositions. The subject matter in Lester's art involves the seemingly simple. 'The subjects for her paintings are so everyday and banal as to be almost invisible. In her overstatement of the obvious, she celebrates life's simple rituals in which she finds subjects worthy of the closest attention. The appeal of Kerrie Lester's work lies in the way it embodies both the serious and the whimsical, the fleeting and the solid, the wry smile with instant recognition of our own weakness and excesses. She does not need to venture far from inspiration. It is all around her - in the home and the studio, down the street and, in the best Sydney tradition, on the beach.'⁴

The CD was released at a launch and live performance by The Broadcasters at Australian Galleries on August 10th 2000 during Kerrie Lester's exhibition.

4. *Seeing Stars* (composed by Michael Bartolomei)

'I'm sure this couple will remind most of us of times of intense dizzying delight, when you could spend an eternity in your lovers arms gazing at stars.'⁵

5. *Beachwalk* (composed by David Stratton)

'Anticipation.'⁶

6. *Dumped by a Wave* (composed by David Stratton)

'Relationships can be funny things - it's all smooth sailing and then suddenly you're dumped by a wave.'⁷

Thanks to Kerrie Lester, Stuart Purves and David Chalker (Bundanon Trust). Thanks also to Diana Blom and Michael Atherton for their supervision and to Mitchell Hart and Benjamin Huie for their technical support. Special thanks to Michael Bartolomei, Graham Jesse and Craig Naughton for their outstanding musicianship, friendship and support.

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⁴ Gavin Fry, *Kerrie Lester*, Australian Galleries, 1999, exhibition catalogue.

⁵ Michael Bartolomei, *Dumped by a Wave*, LaBrava Music LB00013, 2000, CD liner notes.

⁶ David Stratton, *ibid.*

⁷ David Stratton, *ibid.*

Recital 3

**Master of Arts (Honours) Recital Three
Performance Space, Building O**

U.W.S. Kingswood Campus

5-5.45pm Monday 16th August 2004

David Stratton - Electric Bass Guitar

“Subvert The Norm”

Featuring:

**Matthew Doyle - Didjeridu
Graham Jesse - Woodwinds
Gordon Rytmeister - Drums**

The bass has a critical, dual role to play in popular music. It provides integral rhythmic support alongside the drum kit and is the foundation for harmony and melody; yet rarely draws focus. It is a ‘quintessentially inside instrument that remains a mystery to most listeners and, perhaps, to many critics.’¹

This recital focuses on de-mystifying the role and function of the electric bass guitar and explores its potential by “subverting the norm” - extending the bass beyond its traditional role of supporting melody, harmony and rhythm.

Programme

1. Tribeca (Stratton)
2. Conversations with myself (medley: David Stratton, Horace Silver, Alfred Ellis & Charles Calhoun, arranged by David Stratton)
3. Misty (Garner)
4. Two part intervention (Stratton)
5. Darkness and light (Doyle/Stratton)
6. Frederick St. (Stratton)
7. 6/4 Blues (Stratton)
8. ‘Prelude’ from *Cello Suite No.1* (J.S. Bach)

Tribeca (Stratton)

A piece composed for a trio of saxophone, bass and drums. The song form is AABA and features a three bar rhythmic sequence on which the melody is based. Consequently at the beginning of each four bar phrase the rhythm is displaced by a bar. Bass and saxophone perform the melody.

Conversations with Myself (medley: David Stratton, Horace Silver, Alfred Ellis & Charles Calhoun, arranged by David Stratton)

This piece provides an opportunity for me to recreate the progression of standard bass function from the beginning of the 20th Century through to current styles by producing a pre-recorded track of bass parts while playing and improvising melody and harmony along with the track. The titled is borrowed from an album by pianist Bill Evans, who laid down a basic track of piano improvisations of standard repertoire and overdubbed a second take of piano, in dialogue with the first track. My focus has been to explore tradition through to transition. Timbrel considerations were important in this chronological survey. For stylistic authenticity I have performed with tuba, acoustic bass and various electric bass guitars employing a range of techniques. The piece begins with a tuba part based on the harmonic progression of “Down by the Riverside” (Traditional) followed by acoustic bass on “The Preacher”(Silver), a standard 12 bar blues chorus, a “Charlie Parker” 12 bar blues chorus, and a rock ‘n roll 12 bar blues. The transition to electric bass begins with a rhythm and blues feel over chord changes of “The Chicken” (Ellis). The piece continues with a straight 8th note pop feel using a plectrum followed by a rock shuffle, a funk feel and concluding with a contemporary piece featuring fretless bass.

¹ McDonough, J., *DownBeat*, vol. 70, no. 12, Maher Publications, December 2003, p. 47

Misty (E. Garner)

This arrangement for solo 4 string electric bass guitar follows the example set by Jaco Pastorius' solo bass arrangements, extending the possibilities of an instrument that was seen as limited. This is achieved by using double stops, triple stops, natural and artificial harmonics to realize melody, harmony and bass line. Bassists often use the keys of E, A or D major that allow them the opportunity to use open strings for pedal points or drone effects. This piece remains in the standard male vocal key of Eb major, as conveniently natural harmonics found on D and G strings form an Eb Major 7th chord with a fretted Eb bass note.

Two Part Intervention (Stratton)

The title is a 'play on words', as strict guidelines for a two-part invention are not followed. My focus was to compose a 'classical' music interplay between two instruments not commonly associated with that form - tenor saxophone and electric bass guitar. Each instrument shares responsibility for bass function as well as melody, harmony and rhythm.

Darkness and Light (Doyle & Stratton)

The timbre of didjeridu and fretless bass are sympathetic and both instruments can fulfil the role of bass function. The low 'B' drone from both the 5-string fretless electric bass guitar and didjeridu allow Matthew Doyle and myself to exchange roles easily, providing the opportunity for each to extrapolate melodic and rhythmic ideas.

Frederick St. (Stratton)

This piece was composed to combine standard bass function and harmony concurrently, in a style influence by Brazilian guitar music. The techniques involved include 'hammering' to provide a bass line and 'tapping' in the upper register to provide harmony; a style normally associated with guitarist Stanley Jordan and bassist Abraham Laboriel. The form is AABA, the A section based on the chord changes for 'Take The 'A' Train' (Ellington) and 'The Girl From Ipanema' (Jobim).

6/4 Blues (Stratton)

A didjeridu rhythmic pattern provides the metric framework for this 12/8 piece where a '6' pulse is implied over '4'. In addition the tonic is provided by the didjeridu, as bass and saxophone share a question and answer melody.

'Prelude' from Cello Suite No.1 (J.S. Bach)

This piece is one all bassist should explore, as it has a perfect balance of melody, harmony and rhythm.

I would like to thank my supervisor, Prof. Michael Atherton, co-supervisor Dr. Diana Blom and Mitchell Hart for technical support for today's recital. I would also like to

thank Graham Jesse, Matthew Doyle and Gordon Rytmeister for their outstanding musicianship and enthusiasm for the project.

Appendix 3

Compact Disc (CD) details

CD

Tracks

1. *The Last Song Of The Blackbird* (David Stratton, 1999) (4:03)
Piano - Michael Bartolomei, Tenor saxophone - Graham Jesse, Drums - Nicholas McBride, Electric bass guitar - David Stratton
2. *Madeleine* (David Stratton, 1987) (4:44)
Piano - Michael Bartolomei, Electric bass guitar - David Stratton
3. *Blues For Oscar* (David Stratton, 1999) (7:54)
Guitar - Steve Igoe, Tenor saxophone - Graham Jesse, Trumpet - Simon Sweeney, Drums - Matthew Dilosa, Electric bass guitar - David Stratton
4. *The Descent Of Nebuchadnezzar* (David Stratton, 2000) (7:54)
Piano - Michael Bartolomei, Tenor saxophone - Graham Jesse, Drums - Craig Naughton, Electric bass guitar - David Stratton
5. *The Fisher Of Men* (David Stratton, 2000) (6:59)
Piano - Michael Bartolomei, Tenor saxophone - Graham Jesse, Drums - Craig Naughton, Electric bass guitar - David Stratton
6. *Beachwalk* (David Stratton, 2000) (5:38)
Piano and keyboards - Michael Bartolomei, Tenor saxophone - Graham Jesse, Drums - Nicolas McBride, Electric bass guitar - David Stratton
7. *Dumped by a Wave* (David Stratton, 2000) (5:18)
Piano and keyboards - Michael Bartolomei, Tenor saxophone - Graham Jesse, Drums - Nicholas McBride, Electric bass guitar - David Stratton
8. *Tribeca* (David Stratton, 2004) (5:25)
Tenor saxophone - Graham Jesse, Drums - Gordon Rytmeister, Electric bass guitar - David Stratton

9. *Conversations With Myself* (medley: David Stratton, Horace Silver, Alfred Ellis & Charles Calhoun, arranged by David Stratton 2004) (8:37)
Tuba, Acoustic bass, Electric bass guitars - David Stratton
10. *Misty* (Errol Garner & Johnny Burke, 1954) (2:20)
Electric bass guitar - David Stratton
11. *Two Part Intervention* (David Stratton, 2004) (2:54)
Electric bass guitars - David Stratton
12. *Darkness & Light* (Matthew Doyle & David Stratton, 2004) (8:07)
Didjeridu - Matthew Doyle, Fretless electric bass guitar - David Stratton
13. *Frederick St.* (David Stratton, 2004) (4:04)
Flute - Graham Jesse, Drums - Gordon Rytmeister, Electric bass guitar - David Stratton
14. *6/4 Blues* (Matthew Doyle & David Stratton, 2004) (6:08)
Tenor saxophone - Graham Jesse, Didjeridu - Matthew Doyle, Drums - Gordon Rytmeister, Electric bass guitar - David Stratton
15. 'Prelude' from *Cello Suite No.1* (J.S. Bach) (2:49)
Electric bass guitar - David Stratton

Appendix 4

Digital Video Disc (DVD) details

Recital 2 (DVD 1)

9 October 2001

1. *Nebuchadnezzar - Caught in the Forest* (Graham Jesse, 2000) (2:30)
2. *The Descent of Nebuchadnezzar* (David Stratton, 2000) (12:08)
3. *The Fisher Of Men* (David Stratton, 2000) (21:27)
4. *Seeing Stars* (Michael Bartolomei, 2000) (31:23)
5. *Beachwalk* (David Stratton, 2000) (40:34)
6. *Dumped by a Wave* (David Stratton, 2000) (51:11)

Musicians: Michael Bartolomei - Piano, Graham Jesse - Tenor and soprano saxophones and flute, Craig Naughton - Drums, David Stratton - Electric bass guitar

Filmed by Mitchell Hart in the Performance Space, Building O, Kingswood Campus UWS Nepean

Recital 3 (DVD 2)

16 August 2004

1. *Tribeca* (David Stratton, 2004) (3:00)
2. *Conversations with Myself* (medley: David Stratton, Horace Silver, Alfred Ellis & Charles Calhoun, arranged by David Stratton, 2004) (9:58)
3. *Misty* (Errol Garner & Johnny Burke, 1954) (19:33)
4. *Two Part Intervention* (David Stratton, 2004) (22:54)
5. *Darkness & Light* (Matthew Doyle & David Stratton, 2004) (27:00)
6. *Frederick St.* (David Stratton, 2004) (36:35)
7. *6/4 Blues* (Matthew Doyle & David Stratton, 2004) (41:33)
8. 'Prelude' from *Cello Suite No. 1* (J.S. Bach) (48:08)

Musicians: Graham Jesse - Tenor saxophone and flute, Didjeridu - Matthew Doyle,
Drums - Gordon Rytmeister, Electric bass guitars - David Stratton

Filmed by Mitchell Hart in the Performance Space, Building O, Kingswood Campus
UWS Nepean

DVD and CD items are pocketed in the back cover

