

The Bass Guitar in Contemporary Art Music:

Exploring its potential through composition

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Commentary

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Abstract

The bass guitar is largely defined by generic conventions, its development since inception having been shaped predominantly by jazz/rock traditions. Consequently, its received musical role is widely presumed. However, the instrument is being employed increasingly by contemporary classical and art music composers, and a small but growing repertoire of solo and ensemble material is emerging. This reflects a principal trait in the composition of contemporary art music – the widening of composers' spheres of reference from a narrow classical-modernist narrative to the multiplicitous melting pot of 21st-century musical genres and sound manipulation. But the research question here is whether the bass guitar can do more than simply be included. That is, can it be developed to contribute to and engage in the uniqueness of a new compositional voice, rather than merely employed to represent its familiar self in the eclectic smörgåsbord?

Through composition, this research explores the potential of the bass guitar to engage fully in the musical language and intentions of contemporary art music. More specifically, the compositional procedures adopted concern the instrument's fundamental properties, its sound production and amplification, its place in orchestration, expectations of the performer, and extended techniques/musical roles. The project consists of a composition portfolio of solo, ensemble and concertino works, and an accompanying commentary.

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Scores and audio

- Funk Framework no.1*** for piano quartet (2004) 3'22
Students of Chamber Music International summer school
Directed by Simon Lesley
Purcell School, August 2004
- 'N Bass*** for bass guitar solo (2006) 4'06
Ben Markland – bass guitar
Recorded South Birmingham College, June 2007
- Serial II*** for bass guitar solo (2008) 4'50
Ben Markland – bass guitar
Recital Hall, Birmingham Conservatoire, 3rd March 2008 (live)
Recorded Birmingham Conservatoire, April 2010 (studio)
Winner of John Mayer Memorial Prize
- Sequenza*** for bass guitar solo (2009) 11'15
Simon Lesley – bass guitar
Recorded Birmingham Conservatoire, March 2009
- I Like It When The Bass Comes In*** 19'02
for bass guitar and large chamber orchestra (2010)
Thallein Ensemble
Directed by Edwin Roxburgh
Pete Wilson – bass guitar
Adrian Boult Hall, Birmingham, 8th April 2011

Continued over

A Few Thoughts On Creation for 2 sopranos, rapper/baritone,
narrator/baritone, piano and 3 bass guitars (2009-11) 25'35
 Sir Rudenezz – rapper/baritone
 Sid Peacock – narrator/baritone
 Rachel Nicholas, Stefania Secci – sopranos
 Melissa Morris – piano
 Fred T. Baker – bass guitar
 Ben Markland – bass guitar
 Sebastiano Dessanay – bass guitar
 Matthew O'Malley – live sound engineer
 Directed by Simon Lesley
 Recital Hall, Birmingham Conservatoire, 9th May 2011

The Power of Quiet for bass guitar and wind ensemble (2011) 12'00
 THUMB
 Directed by Dan Watson
 Ben Markland – bass guitar
 Recital Hall, Birmingham Conservatoire, 23rd May 2011

Release The Penguins! for clarinet, trombone, bass guitar
and vibraphone/percussion (2011) 16'42
 Jack McNeill – clarinet
 Simon Lesley – bass guitar, trombone and bicycle
 Studio recording with programmed vibraphone/percussion, January 2012

Total duration: 93'52

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Key to Notation

The image shows two musical staves in bass clef, illustrating various guitar techniques. The first staff shows:

- Harmonics: written pitches are nodes
- 'Classical' harmonic: where RH takes node
- LH hammer-on (not plucked)
- RH hammer-on (not plucked)
- RH tapped harmonic (hammer-on and quick release)
- LH ties as RH plucks 2nd note

 The second staff shows:

- scratch string
- use fingernail
- rub fret
- dead string
- pop string (Bartok pizz.)
- direction of strum (quick, definite)
- direction of scratch
- RH move towards bridge (except where *)

pimac RH thumb, index finger, middle finger, ring finger, little finger

①②③④ string numbers

I-XX fret numbers

Context

Motivations for the project

One very important aspect of our contemporary musical culture – some might say the supremely important aspect – is its extension in the historical and geographical senses to a degree unknown in the past. ... [This] means, of course, that the total musical culture of Planet Earth is ‘coming together’, as it were. (George Crumb in Gillespie 1986:16)

We may truly be on the verge of a very liberating epoch. ... Perhaps this is why music conservatives maintain their constipated agenda. They feel the need to stop the clock. They fear the dissonant crowd thriving in the underground. Perhaps they should go back to the basement and start listening all over again. (Kulak 2000:33)

Like many musicians and composers of the late 20th and 21st centuries, my musical experiences and language are diverse and, at times, seemingly contradictory. Educated formally through classical instrumental tuition at a public school, red-brick university and conservatoire, my musical life has been equally, inescapably shaped by the informal, the popular, the multicultural and the commercial. It is the inherent tension in this duplicity – the structured narrative of establishment music tuition on the one hand against the increasing innovation, social mobility and globalisation of culture, information and technology on the other – that Crumb and Kulak elaborate upon, and which lies at the heart of my research project.

As a composer, my principal motivation is to attempt to reconcile the battery of sound-worlds, musical expectations and approaches to which I am daily subject, moulding them into a compositional approach that works for me. Knowledge of a wide range of musical influences, technologies and systems is a great creative strength for a composer. It does, however, pose many questions of structure, boundaries, artistic worth, convention and innovation. Is it possible, for example, to successfully meld ideas I have unconsciously gathered from pop, jazz

fusion, Hindustani classical, free improvisation, electro-acoustic soundscape installations, romantic chamber works, drum'n'bass, liturgical choral repertoire and so on? Each tradition has its own musical parameters and, more importantly, their own educational systems, working methods and outcomes.

It was for the reasons above that I originally resolved to study the relationship of improvisation and composition, a large subject area dealing fundamentally with the dichotomy of 'player permission' typical of vernacular musics and 'composer authority' that characterizes the classical canon. There is a long-standing body of work originating in the mid 20th century that studies this complex and promising relationship, and its ability to unite diverse strands of performance practice.

My interest, however, is not improvisation per se. It is more in the underlying conflict between socially communicative/relevant popular musics and elitist notions of art music as being somehow 'higher'. I want to incorporate into my work the vitality, contemporaneity, communication and society-wide relevance that I see in popular music and that initially drew me to improvisation with its immediacy and perceived 'authentic expression'. I do not see that there should be limits to what is deemed appropriate for a composition; that a certain trait of vernacular music – a rap, a blues bend, a power chord, a free gospel melisma, a verse and chorus, a Rhodes piano – is too facile for art music, too fixed or limited a musical entity. Nor am I comfortable with the idea that art music is necessarily more complex or unattainable for an aural tradition performer or demographic.

I am thus very interested in the many aspects of composition, musical performance and reception raised by dialogue between aural and notated traditions, popular and establishment. Since the comments of Crumb and Kulak in my formative years, there has been a considerable amount of composition in this area, increasingly facilitated by the technological

and internet revolutions and their simultaneously converging and fragmentary effects on music. But it is doubtless because of the supremely successful promotion of vernacular musics through public media that the discussion surrounding immediacy, expression, relevance and audience continues to be so strong in art music.

These, then, are the fundamental, if broad, socio-emotional concerns that motivated me to embark on this research project. Whilst the specific project has moved away from improvisation and become focussed instead on the bass guitar and my compositional voice, its context remains one of musical openness, egalitarianism, creative symbiosis and lively interaction. This is borne out in the portfolio, in its various musical forms with their differing social signification (a Sequenza, a groove, a quartet, an alap) and, centrally, in its 'art music' compositions for bass guitar.

Reasoning for focus on the bass guitar

There are many good reasons, personally and academically, for focusing compositional research on the bass guitar – perceived, as it is, as predominantly a vernacular instrument. I shall first discuss issues for me as a creative individual, before returning to the more fundamental issues raised in the previous chapter. I will place the bass guitar firmly at the centre of the debate on contemporary cultural pluralism, finally expanding upon the implications for my research.

It was not initially clear to me that wider socio-cultural concerns could be examined through the medium of one instrument. Nor was I overtly aware of the instrument's fundamental effect on my approach to harmony, texture, rhythm and line in almost all of my compositional output (doubtless as a result of its prevalence in my listening experience). It was after Peter Wiegold's observations on *Funk Framework no. 1*, that the piano left-hand part was 'through and through a bass guitar line', that I became aware of how representative this was of my wider compositional approach, and of the potential of this project. When commissioned to write for über-classical forces, I had chosen to construct a bass guitar line underpinning altered chords in a pulsating groove (see bar 22 onwards). Indeed, my choral and instrumental works are commonly built around chord progressions, in root position or with tonal voice leading, structured in a song form or clearly defined episodes of rhythmic repetition, with textures invariably built from back-line forward.

It became obvious that the bass guitar was the perfect vehicle on which to focus my compositional research, despite the fact that I had not written for bass guitar since leaving school – almost as though, through establishment tuition, I felt that it wasn't appropriate or relevant.

The instrument seems particularly relevant in the debate about convergent cultures. First, its origins are coincident with the birth of postmodernism, with its disrespectful questioning of boundaries and inclusion of vernacular musics. Second, its evolution spans the revealing journey of jazz from entirely felt aural tradition to highly theorized, sometimes marginalizing elitism. It can be an instrument of aural tradition with a small variety of specialized generic uses, through to an instrument for the studios, notation-interpretative. Third, the name of its defining model, the Fender Precision Bass, concisely describes the instrument's ability to achieve subtlety, clarity and control – qualities often ascribed to art music. Finally, it is an amplified instrument, one of the first, and thus symbolic of music technology as a whole, being a key factor in the erosion/development of classical concert music. On a practical level, this makes it possible for me to engage my research wholly in the technological revolution in its most current state.

There are many pure research questions raised by focusing on the bass guitar. Not least among them is the presumption that its musical role is known or finite – something I confirmed through a straw poll on this research. To the question, 'What does a bass guitar do?' respondents agreed a list of seemingly self-evident points: the bass guitar is a back-line instrument that plays predominantly with drums; it plays in rock, jazz and fusion of varying kinds; it punctuates groove-based patterns through highly articulated rhythmic riffs; it provides fundamental harmonic function; its sound is pure, compressed and smooth, yet dominant. In actuality, the extent of the bass guitar's abilities is not clearly understood; no respondent had any clear notion, for example, of how a bass guitarist might work in an acoustic ensemble.

Some bassists are self-taught genre specialists, some fastidious double bass or classical guitar converts, some art-jazz omni-musicians who both read and improvise with genuine novelty. Given these marked differences of approach, how does a composer go about employing a bassist, or write art music for bass guitar with any certainty? In situations involving out-and-out

aural tradition instrumentalists, such as Blur's collaboration with Moroccan musicians on *Think Tank* (2003), it is clear that notation and much composer prescription are redundant – the composer must structure his work reactively, leaving the original characteristics of the vernacular instrumental performance largely untouched. This distinction is far less clear with bass guitarists, because of their varied backgrounds and different working methods.¹

Finally, a bass guitar is, in all aspects of construction, a guitar; and yet its usage is more usually linked with that of the double bass. This raises a series of research questions symptomatic of all of those above: Can the bass guitar be successfully played like an electric or classical guitar? Is this a natural or evident progression for the instrument? Would there be players able to do this? What aspects of tone, technique, gesture, polyphony or stylistic awareness would be successful? Why is the modelling on double bass usage so prevalent? Whilst this line of inquiry does not take account of all aspects of cultural convergence – forgetting as it does the detailed, unique and vibrant aspects of vernacular music performance that I want to employ compositionally – it is a clear and effective distillation of some principal issues of cultural travel.

¹ In traditional classical methodology the player interprets the composer's score. A score assumes much, is slow to communicate – particularly new compositions – and relies on an understanding or consensus about classical performance practice, being vague in its communication of inflection, timbre and nuance. In pop music it works the other way: a player is employed because of his specialist sound, his total stylistic ability in an area. Thus in fundamental aspects of the sounding outcome the composer is somehow secondary.

Aims and Objectives

What you are doing is very new, very unusual – it will scare players rigid.

(Icebreaker bassist, Pete Wilson, personal communication on my research in early 2010)

Through composition, this research explores the potential of the bass guitar in contemporary art music. Can the instrument's largely generic usage be challenged and/or further developed? Can the bass guitar be encouraged to contribute to and engage in the uniqueness of a new compositional voice, to engage fully in its musical language and intentions, rather than merely employed to represent its familiar self, in a kind of eclectic smörgåsbord?

The project consists of a composition portfolio of solo, ensemble and concertino works, and an accompanying commentary. There is currently little repertoire with this focus for the bass guitar, and less still formal study of it.

More specifically, the compositional procedures adopted in this project are concerned with the following aspects:

- The instrument: understanding the bass guitar's fundamental properties, propensities, strengths and weaknesses; so to achieve effective composition.
- Sound production: the instrument's mechanics and amplification; contemporary sound design through music technology.
- Orchestration: the bass guitar's sonorities and usage in relation to other, especially acoustic instruments; balance with ensemble.

- The performer: issues of notation, felt/aural learning, educated learning, breadth and/or specialism of musical skills/sensibilities, technique/posture.
- Extending techniques/musical roles: the instrument's currently received/pre-determined genre-based limitations and propensities; vernacular music and lively inflection; art music – its subtlety, fluidity and complexity; collaborative compositional processes.

Methodology

Having clearly focused the project aims, I designed a balanced portfolio of compositions for bass guitar that would examine the principal forms of contemporary art music: solo, chamber, ensemble and concertino works ranging from miniatures to large significant structures. I made the decision to write almost entirely for a standard four-string instrument. Despite the considerable variety of customized models, build structures and ranges available, I wanted to focus on the core characteristics of the instrument. Another key decision was never to orchestrate the bass with drum kit, drum machine or sequenced track that would magnify the sense of generic pre-determination (the bass being heard with drums in the vast majority of music). Instead it is heard unaccompanied, or orchestrated with winds, orchestra, mixed chamber ensemble, vocals and with other basses.

Each piece required a number of working stages to bring it to fruition. In no particular order, these stages included sketching, improvising, scoring, typesetting, collaborating with the bassist, recording demos, booking ensemble players, rehearsing, performing, recording, and evaluation. All pieces submitted are recorded; the tendency for some classical composition to be judged by score alone would be inappropriate here, with my concerns for sonority, genre, vernacular inflection, technological sound production and so on.

I enlisted the help of a range of bassists, working with them throughout the creative process: Pete Wilson – *Icebreaker*, Fred T. Baker – *Soft Machine*, Ben Markland – *BCMG, Birmingham Jazz, notes inégales, George Benson, The Who*. Their input was invaluable in informing my ideas, and in ensuring that my research was contemporary, relevant and practical.

The pieces here are presented chronologically in order to reflect the learning process: the issues raised by one piece will be addressed in subsequent pieces. It also reflects a systematic

approach; I started writing predominantly groove-based material in *Funk Framework no. 1* and *N Bass*, went to a modernist extreme with *Serial II* and *Sequenza*, before developing more integrated material and methodology in the remaining pieces, *I Like It When the Bass Comes In*, *A Few Thoughts on Creation*, *The Power of Quiet* and *Release the Penguins!*

The instrumentation of the pieces progresses accordingly. Firstly there are pieces for unaccompanied bass guitar: I wanted to be sure I understood how the instrument worked on its own, what its limits were. Then, in *I Like It When the Bass Comes In* the bass is used predominantly as soloist, but set against a 22-piece chamber orchestra with every instrumental family represented, examining the fundamental relationship of bass with ensemble. Later, *A Few Thoughts on Creation* and *The Power of Quiet* employ the bass more flexibly in the ensemble, requiring skilled separation by articulation, timbre, register, texture and rhythm. These pieces also deal with many of the technological issues. Lastly, in *Release the Penguins!*, the bass is placed in a novel quartet of clarinet, trombone, vibraphone/percussion and bass guitar – an un-conducted chamber group, whose music is certainly unique. It employs the bass in unusual and changing roles, expects of the bassist subtlety, guitar-like polyphony, lively inflection and tightly-controlled classical performance practice. I hope it demonstrates the culmination of my research with effective artistic writing.

Existing Repertoire

There is a wide range of music worldwide involving bass guitar. However, there are few examples of its use in contemporary art music, and a minute number employing the bass in other than received ways. I will examine this small body of work in the light of my research aims, analysing representative examples of the bass in unaccompanied solo work, ensembles, concertos and technology-heavy contemporary performance practice.¹

In Michael Tippett's *Ice Break* (1977) the symbolic deployment of electric and bass guitars in an otherwise traditional orchestration was seen as the 'aural equivalent of ... Western colloquialism' (Warrack 1977:556), symptomatic of a clear divide between establishment and vernacular musical worlds. But the question is this – are we always going to attach to the bass such social signification and restricting pre-conceptions? Many of the pieces described below challenge the fixed associations burdening the bass guitar, and engage the bass fully in art music. In Tippett's combination of bass guitar, solo violin and cello with distant muted horns, Warrack saw the future, describing a 'strange sound complex [that] promises well'.

Unaccompanied repertoire

Unaccompanied solo bass pieces are predominantly composed by specialist bass players, implying aurally learned, generic or 'colloquial' material. This is not to make any qualitative judgements on what being 'in a genre' might mean, all of the following works being supremely accomplished in every element of music. My focus on levels of genericism purely concerns the desire to develop the instrument compositionally, and thus its ability to play unfamiliar or fragmented material is important.

¹ Please see CD3 for accompanying audio: track listings are on the CD box reverse. Scored examples (figs.1-7e) appear at the end of this chapter, starting on page 26.

Jaco Pastorius' seminal composition *Portrait of Tracy* and structured interpretation of *Donna Lee* (1976) are a 'manifesto of virtuosity' (Anderson n.d.: Spotify), in both their performance and composition. The instrument's full range is spanned with pioneering pitch-rich dexterity. Its sonorities are understood: contrasting timbre and pitch play a significant part in both tracks (for example in *Portrait of Tracy* the constant interplay between harmonics and lower fundamentals, the added chorus effect for the final cadential hurrah; in *Donna Lee* the left-hand travel towards the neck at 1'48 for a more angular timbre). *Portrait of Tracy* is arguably the defining artistic moment for the bass as a solo instrument, with its complex harmonics sequence of inventively-voiced polyphonic altered chords in a flowing irregular structure, impeccably phrased interweaving contrapuntal lines, freely employing rubato throughout. Yet there are few subsequent examples of unaccompanied bass work. Contributory factors may be that both Pastorius tracks are un-extended in form, sometimes pattern-oriented, and thus too jazz-based for contemporaneous 'serious' composers.

Further investigation into unaccompanied repertoire finds more generic composition. Marcus Miller's *Scoop* (1993)² and Victor Wooten's *U Can't Hold No Groove* (1996) push virtuoso boundaries impressively further, both in speed and subtle articulation. But they are more firmly genre-entrenched – in funk – than Pastorius. Similarly ambitious is Adam Nitti's *Fritter Boy* (1998), with two-handed finger tapping and arpeggiated sweeps across a 6-string bass; but it relies absolutely on familiar fusion grooves and riffs. The drum'n'bass inspired work of Squarepusher (90s-present) is technologically and materially developed, but fundamentally trades periodic intricate slap patterns with drum machine and samples.³ Dominique di Piazza's *Little Spanish Rose* (2010) showcases his startling flamenco technique. Complete with impeccable rasgueados,

² Originally a studio track with full arrangement, but performed successfully unaccompanied.

See 'Marcus Miller – Scoop' at http://www.youtube.com/watch?v=NHdN_O5k3WM&feature=related.

³ See 'Squarepusher Session' at <http://www.youtube.com/watch?v=yL6DD-oeveg>.

it is truly original on bass – but the composition is derivative, its phrygian melodic patterns, harmonic iv-III-♭II-I^(add♭9) progressions and *prestissimo* ornamentation being highly familiar.

Clearly there is inventive writing in all of this, with detail, clarity, subtlety, and the highest performance standards. There is a deep desire to develop the instrument in terms of players' technical facility and the according breadth and intricacy of gesture this provides. But these tracks are essentially the product of performers, not composers.⁴

Evidently, it is genre-based performance practice that has been developed. With the release of *Portrait of Tracy*, there was a genuine feeling that the bass could have a future in classical music: transcriptions of Bach cello suites were published,⁵ inspiring notions of 'high art' and works like Wooten's derivative *Classical Thump* (1996). But whilst players' technique resultantly improved, there has been little lasting art-compositional impact.⁶ Indeed, I have not located any piece for unaccompanied bass to resemble in style or intention, for example, Berio's *Sequenza XI* or Takemitsu's works for solo classical guitar.

The bass guitar in ensemble

Art music composers have employed the bass guitar in ensemble works for some time. Irwin Bazelon's *Churchill Downs* (1970), Penderecki's *Partita for Harpsichord and Chamber Orchestra* (1971), David Bedford's *Star's End* (1974), Andriessen's *Hoketus* and *De Staat* (1976) in the seventies; in the late eighties and nineties, the process and ambient music of Michael Nyman, Philip Glass, Kancheli's *Abii Ne Viderem* (1995), Goehr's *Death of Moses* (1994); in the 2000s, the work of ensembles such as Orkest De Ereprijs (composers Joe Cutler, Richard Ayres, Martijn Padding) and the technological Icebreaker (David Lang, Michael Gordon, Brian Eno,

⁴ Excepting Squarepusher, Patitucci and Pastorius, who compose and arrange throughout their material.

⁵ Currently published by Hal Leonard in *J.S. Bach for Bass Guitar* HL00696460

⁶ John Patitucci's rubato espressivo *Tone Poem* is perhaps the most romantically structured work, but its melodic/harmonic language remains familiarly jazz-like.

Yannis Kyriakides). The question remains, though, about *how* it is employed and orchestrated. I will examine some of these examples below.

Irwin Bazelon's *Churchill Downs* (1970) is a masterpiece of deconstruction. Scored for big band, the opening bars have all the hallmarks of entertainment music of the day. But, like all its material, the walking bass grooves gradually disintegrate into juxtapositions of humorously angular gestures (see 2'05 and 7'15), resulting in uncharacteristic phrases, dissonant and fast, with wandering tempi. Bazelon's link with high-end entertainment music serves him well in executing *Churchill Downs*: all his instrumentalists would have been readers of notation as well as players sensitive to the nuances of contemporary grooves, able to improvise and hype up material where required. This allows Bazelon everything he requires – the cerebral fragmentation and clarity of classical performance practice, and the improvisatory and freely inflected style of entertainment music. Here is a highly successful, socially ambiguous use of bass (if one that still assumes monophony and fixed dynamics). In relation to my own compositions, I note the presence of the excellent, rounded, reading bassist, and the familiar setting from which the deconstruction starts.

In David Bedford's *Star's End* (1974) vast clusters of timbre wash over each other, overlaid by Mike Oldfield's electric and bass guitars.⁷ As in the works by Penderecki and Bazelon, the bass is seamlessly bound into traditional orchestration by a diverse range of additional instrumental timbres: harpsichord, clavinet, electric piano, microtonal clusters of extended technique, an array of metallophones and idiophones. Bedford employs a wide spectrum of guitar timbres, together with sympathetic timbral orchestration. He uses Oldfield for bold, distinctive gestures – *niente* volume pedal crescendos, unpredictable sustained bends, block chord stabs, burbling parallel 4ths – that are theatrically striking, yet ergonomically and structurally clear to the vernacular player

⁷ Performable live by two musicians.

(see figs.1a-f). Once more the result is socially ambivalent, surprising, developmental, epic in form, and therefore should be seen as art music.

Andriessen utilizes the bass guitar widely in ensemble works, sometimes prescribed in a notably ambitious non-generic way. *De Staat* (1976) contains fiendish passages of hectic ensemble unison (e.g. at 8'51) that demand the bassist learn an unfamiliar pitch set and angular lengthy presto phrases. The bass is employed texturally, also, with rumbling low diads, or high shock notes (e.g. at 3'39 of part III) that are sympathetically orchestrated with bass trombones, French horns and trumpets in low register, cemented into the ensemble by electric pianos. Andriessen's bass guitar parts are fully integrated into the contemporary art-music ensemble, and demand that the bassist fully understand score-oriented performance practice.

Conversely, in most process and ambient music, the bass is typically limited to a fundamental role, holding down root notes, or repeating simple monophonic phrases to provide rhythmic motion. (Indeed it could be argued that Andriessen's parts default to this functionality.) Although Michael Nyman's *The Fall of Icarus* (1999) contains moments of seeming rhythmic originality (fig.2), the sounding result is akin to the syncopation of early-Motown 1st-5th->7th phrases. This simple 'crossover' way of working seems to diminish the bass's role – being neither classically unique nor vernacularly vital.

In 2012, Orkest De Erepijjs performed UK premieres of several ensemble pieces with bass. There is originality in some of the bass writing: in Martijn Padding's *Harmonium Concerto* (2008) bass harmonics are doubled with those of electric guitar for security and brightness; wild string vibrato behind held wind chords creates an oscillating effect; and the varied fretting positions and glissandi of Joe Cutler's *September Music* (2012) are carefully written. But although this is art music in essence, a fundamental bass role continues to predominate.

Compositions for bass guitar with music technology

The role of music technology in affecting both bass guitar sound, and its artistic development, cannot be underestimated. For few of the pieces discussed above is music technology the principal artistic focus, but all of them need it practically: the bass is an electric instrument, so basic decisions are always required about pick-ups, volume, EQ and so on. Beyond this, though, is the extent to which music technology has become integral to musical argument. With signal processing, remote foot switches, multi-FX and now latency-less computation, music technology has accelerated the promotion of timbre as a primary element of music, easily manipulated in live performance. Music technology could also be said to be the greatest of conflagrative socio-musical levellers, an indispensable contemporary tool for all – the endpoint of hyper-serialist musical thinking as much as of drum'n'bass, sound art or teen pop.⁸ Whilst my research is not a music technology project, in composing for bass I necessarily explore it.

Even before the 21st-century technological revolution, the recordings of the traditionally-scored Bedford and Bazelon recordings benefit hugely from post-production, with clear separation through recording technique, EQ, panning, compression etc. It lends Bedford's collage extra spatial parameters, and Bazelon's deconstruction greater social signification through applying the latest idiosyncratic reverbs, uncommon at the time in classical recording. In live performance also, while Bazelon's bass is dynamically limited relative to the ensemble, Bedford/Oldfield's is wide-ranging both in timbre and dynamic and requires careful technological control.

It is a centrally accepted lo-mid sound that Andriessen hears, expects and writes for. But in

⁸ As Björk observes, there is 'a lot of musicology in a lot of electronic music' (Björk in Stanley 2011:22). She continues, however, by acknowledging ongoing socio-musical differences, saying electric innovators are sometimes 'told they're idiots because they don't know the difference between C and C#'.

Squarepusher, the standard bass sound is consciously cloaked in psycho-electric production, novel sound-worlds being a principal facet of the music.

For Icebreaker and the ambient school, technology became increasingly vital: drone-like bass pedal notes required multi FX; separation, reverbs and precise timbre were essential to the music's clarity and emotive impact. In David Lang's *Slow Movement* (2005), performers play quietly but, through close-mic techniques and strong amplification, resulting volumes are intensely magnified. The bass detunes one low string so much that it creates a beat phenomenon with the adjacent open string – played *tremolando* at length for an earthquake-like timbral effect. This extensive use of physics and music technology requires an extra stage to the creative process; in touring Brian Eno's *Apollo* (arranged Lee, W. 2009), Icebreaker required a 5-hour sound check and two sound engineers to balance its ambient orchestration.⁹

Most recently, for Kasper T. Toeplitz, and the Low Frequency Orchestra – at Huddersfield Contemporary Music Festival 2011 – technology is the art. He uses Logic and Ableton Live to create 'architectures' of noise. After processing, 'bass instruments are not limited to their low register, they can play virtually as high as you can only imagine; but with a greater tension' (Toeplitz 2010: online). It makes sense to use bass as a sound source, because of its wide spectral pitch range, and readily available, purpose-built professional outboard equipment. Toeplitz's splinter project involves just a bass guitar and a laptop. The 'electric howl and bursts of high frequency splinters' resulting from processing such as granulation and spectral harmonization allows the bass to produce an infinite number of sound qualities. It makes it, in

⁹ Pete Wilson, personal communication, 2010.

Toeplitz's words, a 'supra-instrument'; but one, interestingly, little different from an oboe or clarinet: social signification is redundant because the bass is just another sound source.¹⁰

It is clear that I cannot ignore the technological aspects of the bass, conservatively treating it as purely an amplified classical guitar or double bass. I must make decisions about sound diffusion and, furthermore, explore the artistic potential of the bass in the technological revolution.

Concerto works

In the last decade, concerto and concertino works for bass guitar are increasingly in evidence. Furthermore, the classical nature of the form directly implies the integration of the bass into art music. A concerto enables me to examine solo writing, ensemble balance, sound diffusion and player-composer liaison. My analysis also focuses on the extent of generic performance practice and social signification. Two fundamental aspects of the concerto form are key in this: one, that the solo instrument is separate from the ensemble, and two, that a concerto is a dialogue between soloist and ensemble. Separation allows the solo instrument to persist in/showcase its idiosyncrasies; dialogue suggests a deeper level of artistic/stylistic integration.

In Gene Pritsker's *Lost Illusions* (2004), a concerto for bass guitar doubling double bass, there is inventive bass writing and considerable dialogue between bass and orchestra. With links to Princeton and Columbia Universities, Pritsker's music, according to Joseph Pehrson of *The Music Connoisseur*, 'dissolves the artificial boundaries between high brow, low brow, classical, popular musics and elevates the idea that if it is done well, it is great music, regardless of the style or

¹⁰ See Elemental II – Eliane Radigue, performed by Kasper Toeplitz at www.youtube.com/watch?v=WojvQM2W5kY

genre.’ (Pehrson 2001: online)¹¹ Closer analysis supports this; from the opening bars, bass and orchestra exchange dissonant yet funk-like material in a complex contrapuntal interplay, and the main theme is serially constructed (fig.3a). There is an intriguing mix of sound-worlds in movement 2, with orchestral winds accompanying a collage of samples of indigenous peoples, under a polyphonic guitar-like bass solo (fig.3b). But in Pritsker’s material, many elements are ‘received’ – the semiquaver syncopation, the phrasal periodicity reflecting James Brown’s idea of ‘the 1’, the seemingly inevitable orchestration with drum kit, and every aspect of articulation and inflection betraying jazz-fusion sensibilities, particularly the highly signified slap-and-pop technique. These generic features strongly affect the orchestral material, which resembles a wildly deconstructed disco (the opening string gesture recalls Average White Band’s *Let’s Go Round Again*).

That the piece is notated enables it to be composer-structured, unconventional, non-aurally complex and long in form. In Pritsker’s recording, however, it is evident that reliance on notation has its dangers: it can impose music on players. The orchestra occasionally seem rigid and uncomfortable with some funk rhythms and inflection, and some of the bass solo material is perhaps overly complex (figs.3c&d). These aspects of the performance reinforce a sense of separation between bass and orchestra – between the two musical worlds.

The final clause of Pehrson’s review – ‘regardless of the style or genre’ – betrays the generic elements that remain in Pritsker’s music. The observation does not sit well, perhaps with notions of art as sublime, as transcending boundaries – notions that are key in my research. Pritsker’s methodology, like that of compatriots Glenn Branca and Tyondai Braxton, is to create irregular,

¹¹This recalls Simon Frith’s observation that ‘We should be examining ... not how true a piece of music is to something else [e.g. a high art model, notion of development etc.], but how it sets up the idea of truth in the first place – successful pop music [and by extension music generally] is music which defines its own aesthetic standard’ (Frith 1988:1 cited in Leach 2001:143)

art-structured forms from popular culture and everyday sound. Thirty-four years after Bazelon's deconstruction, Pritsker does not truly escape the received habits of the bass guitar.

Andrew Downes' *Concerto for Guitar, Bass Guitar & Strings* (2000) is very different in style and intention. Wholly tonal and classically constructed in three movements (sonata-slow-rondo), its themes are passed between bass, violins, celli and classical guitar in concise contrapuntal textures (fig.4). Soloist Fred T. Baker ably interprets the work's classical inflection and courtly dance like motives. Its transparent form could easily be internalized either through aural learning or notation: effective integrated writing for bass in art music. However, the bass plays monophonically, mostly in high range, and perhaps is cautiously under-utilized as an instrument. Its conservatism also means that it does not deal with many issues in contemporary music.

Perhaps the most high profile examples of bass guitar in orchestral music are the result of the association of Mark-Anthony Turnage and bassist John Patitucci. In *Scorched* (2002) and *A Prayer out of Stillness* (2007), Turnage employs the same effective methodology – that is, to write to players' strengths. In doing so, he allows Patitucci space to perform and interpret in his own manner. The written material consists of clearly conceived themes, followed by passages of improvisation over annotated chord symbols, suiting Patitucci's expertise perfectly. Development is left partly to Patitucci's abilities as a thematic improviser, and partly composed in Turnage's scoring for strings or winds, again, suiting their musical strengths (fig.5).

In letting Patitucci breathe, Turnage is open to the criticism that he lets him *dictate* compositionally. In *Scorched*, collaboration on compositional voice is very extensive, all of the original tunes being guitarist John Scofield's.¹² Indeed in the second and sixth movements, the jazz trio – Patitucci, Scofield and Peter Erskine – are given free rein to perform Scofield's compositions *ab origine*. Rather than look on this judgementally from a 'pure art' perspective, it

¹² *Scorched* = Scofield **orchestrated**.

must be argued that this is simply effective collaboration, facilitated by Turnage – ‘a uniquely satisfying compound of . . . musical imaginations’ (Kimberley 2003:6) that presents classical and jazz with equal value. Turnage benefits from allowing the pieces to be player-centric through committed virtuoso performances. He manages the integration, for example in the doo-dap feature, initially scored at the start of the third movement of *A Prayer out of Stillness*, that becomes a groove, that becomes a themed improvisation, that becomes a free solo; in *Scorched*, the composed-out versions of Scofield’s jazzed trio movements, placed immediately previous to them in the running order (first and fifth), making it seem to the audience that composer and improvisers are deeply connected in some essential way.

However, it must be noted that Patitucci’s role in *Scorched* remains predominantly that of an excellent groove-maker. In *A Prayer Out of Stillness*, too, Patitucci’s jazz-funk inflection is never persuaded to alter; note, for example, the distinctive portamento acciaccatura and vibrato style at 6’38. Also, for my purposes, the six-string writing in this piece is too guitar-like in range.

Where the composer *is* the soloist, the issues over collaboration and effective writing for bass are minimal. In Patitucci’s own concertino composition, *Theme and Variations for 6-string bass and strings* (2006), thus emerges a clear compositional voice. However, the similarities of line, inflection and improvisation between *Theme and Variations* and *A Prayer out of Stillness* illustrate the strong influence of Patitucci on the Turnage work. But neither piece need be Patitucci-centric, being highly accessible to other performers in their clear concepts and simple scoring.

Another player-composer work is Florian Magnus Maier’s *Bassconcerto (Four Imaginary Views of the Sagrada Familia)* (2003). Part of the Dutch contemporary music movement, it is also inspired by Scandinavian metal, but is never allowed to be generic. It is scored, uniquely I believe, for bass with winds and brass, joined in the latter movements by drum machine and electronics. The bass part, as much of the scoring, is busily complex, with extensive use of

two-handed hammering techniques over aperiodic time signatures (fig.6a). The busy bass line frequently attempts to match the agility of the wild woodwind sweeps above. When slow, the bass plays complex 3- or 4-note artificial harmonic chords, sometimes with standard notes within, sometimes inflected by bending the neck of the instrument or applying pressure to the strings behind the nut (fig.6b). This is all notated in infinite detail, and the score's artistic intentions are impressive and ambitious.

The principal questions are whether the orchestration works, and whether busy complexity is suited to the bass. The result of the fast tempo and choice of hammering technique is that the strings cannot speak; even after audio post-production, it is often difficult to pick out the detail of the bass part, or even its pitch. This problem would be compounded in live performance. There is also a fundamental issue of auditory focus and orchestral separation, when busy bright metallic sax and trumpet lines are scored above a virtuoso concerto bass part.

Maier has written a spectacular bass part for himself that a stand-alone composer would not be able to write. But in transcribing it so literally into score, he makes it inaccessible to other bassists. Furthermore, there are problems of balance: perhaps there was too much faith in amplification, an assumption that subtle intricacies can simply be 'turned up'.

There are, however, some excellent moments in Maier's piece that have been truly helpful in my research. The opening of movements 1 and 2 are highly effective. The delicate bass harmonics, *niente* crescendos and bends make creative use of unfamiliar traits of the instrument that, importantly, are clearly heard over the sympathetic scoring (figs.6b). Similarly, at the final cadence of movements 1 and 4, the bass speaks clearly and contrastingly over its wide pitch range, the long notes of the accompaniment drawing the listener's attention to the solo bass (figs.6a&c).

Finally, Colin Riley's *Sub Merge* (2002) is scored for the colourful combination of bass guitar solo, 9 single strings, harp and 2 percussionists (tuned gongs, cowbells, tam-tam, chinese cymbal,

suspended cymbals, maraca, mark tree, vibraphone, marimba, clay drums, 2 bass drums, separately used hi-hat, snare, toms, kick drum). The collaborative working method that Riley, not a bassist, employed in constructing the piece is doubtless contributive to its success, working as he did with samples of real bass sound; before writing a note, he sampled every playable pitch in a selection of techniques favoured by his chosen soloist (Pete Wilson), and subsequently sequenced his composed material in a working audio file. He then qualified his artistic intentions by checking performance practicalities with the soloist. The two collaborators finally produced a small manual on how to write practically for bass, now lost.

The piece is successful art-music for bass as soloist and in ensemble. The combination of chromatic pitch-set and rootless jazz voicings involves the bass with ease in a unique harmonic language. The diverse timbres of the orchestration embed the electronic instrument into the acoustic ensemble (fig.7a). The polyphonic bass material is simple but strong in its wide pitch range, contrasting interval content and easy mechanics. The shadowing string texture of the opening orchestration shows a keen understanding of the problems of bass harmonics, with their initial thud and quietly decaying pitched tail. Where there is groove-like material, it appears in an unfamiliar fashion: briefly, in isolated pockets on an acoustic instrument, or in an unusual orchestration, always with unique material to offset it (e.g. fig.7b). The opening bass phrases of the 2nd movement are carefully articulated (dry, slurred, ringing) and simply contrasting in range (fig.7c). The bass opens the 3rd movement with *Portrait of Tracy*-like material. But the polyphonic guitar-like material later accompanies expressive viola and cello lines, with harp, before developing fluidly as the movement progresses (figs.7d&e). Riley does not allow genre-inspired material to stand alone.

It is notable that his soloist's way of working was so classical, working 'retentively'¹³ from notated instruction, after the initial collaboration. This is rare for a bassist, but entirely suits a classical composer. Riley also managed the compositional process so well, ably illustrating that the instrument can have art music written for it, and can execute it confidently.

The artistic potential of the bass guitar has developed across differing musical disciplines. In the postmodernist deconstruction with Bazelon and Bedford, in jazz with Jaco Pastorius' orchestration of bass with French horn in *Okonkole Y Trompa* (1976), in the school of Andriessen's *Hoketus*, the bass guitar has played many roles, some generic or functional, some ambitiously virtuoso, some successfully art-musical. Today, the spread of experimentation continues, for example, in Dominique di Piazza's collaborations of 2010 with Hindustani and Turkish folk musicians,¹⁴ and in chamber music also, in Pritsker's *Quantum Mechanical* for bass, electric guitar and French horn (2011).

But much of this is ad hoc, determined by individual players or composers' one-off projects. Unlike the jazz-fusionists – Wooten, Miller, Nitti et al – and the ambient/process ensembles, there is little sense of an agreed, productive, evolving school of bass guitar art-music performance practice. The instrument usage is very diverse, yet it remains at the fringes of 'serious' music, as though burdened with its vernacular past. Perhaps what is required is an art-music pioneer to commission a multitude of concertos, as Christian Lindberg did for the trombone. Meanwhile, I hope that my own additions to the repertoire presented in this portfolio will promote the instrument in art music, encourage other players to take the research further, and contribute a greater understanding of the potential of the bass guitar.

¹³ Pete Wilson, personal communication, 2011

¹⁴ Ranjit Barot's *Bada Boom* has an ensemble including bass, electric mandolin and tablas. Zeki Çağlar Namli's *Face to Face* is a trio of guitar, bass and bağlama, the Turkish long-necked lute.

Fig.1a: Timbre-changed, orchestrated, block chord swells in Bedford's Star's End (6'25)

The musical score is a handwritten orchestration for a piece titled "Bedford's Star's End (6'25)". It features a variety of instruments and dynamic markings. The top section includes Flutes (Flts 1,2,3), Oboes (Obs 1,2,3), Clarinets (Cls 1,2,3), and Bassoons (Bsns 1,2,3). Below these is a "WIND" section with dynamic markings of *f*, *pp*, *ff*, and *pp*. The middle section includes Timbres 1,2 and Timbre 3 (Tuba). The bottom section includes Electric Guitar (El. Gtr) with *Em7* and *FUZZ Em7* markings, Bass Guitar (B. Gtr), Percussion (Perc) with *soft sticks* and *pp* markings, and a section with *f* and *pp* markings. The score is written in a system of staves, with various dynamic markings and performance instructions throughout.

Fig.1b: Simple, strong bass gesture in Bedford's Star's End (9'38)

The musical score is arranged in systems. The first system includes:

- Hms:** Horns 1, 2 and 3, 4, playing sustained notes with long slurs.
- Tmbone1:** Trombone 1, playing sustained notes with long slurs.
- Tmbone3:** Trombone 3, playing sustained notes with long slurs.
- B. Gtr.:** Bass guitar, playing a sustained note with a slur. Annotations include "Bend whole tone" and "mf" (mezzo-forte).

The second system includes:

- Vlns:** Violins 1, 2, and 3, playing a rhythmic pattern of eighth notes. Annotations include "(8ve)" and "laco" (lacord).
- 4,5,6:** Violins 4, 5, and 6, playing sustained notes with long slurs.
- 1,2,3:** Violas 1, 2, and 3, playing sustained notes with long slurs.

The third system includes:

- 4 cello soli:** Cello solo part, playing sustained notes with long slurs.
- 4 D=B soli:** Double bass solo part, playing sustained notes with long slurs. Annotation includes "mp (con vib)" (mezzo-piano with vibrato).

Fig.1c: Ergonomic parallel 4ths: easy bass virtuosity in Bedford's Star's End (11'30)

The image shows a handwritten musical score for the piece "Bedford's Star's End" at the 11:30 mark. The score is arranged in a system with multiple staves. At the top, there are staves for Flutes 1 & 2 (Fls 1,2) and Clarinets 1 & 2 (Cls 1,2). Below these are three staves for Bassoons (Bsns 1, 2, 3). The next section contains staves for Horns (Hms), with a dynamic marking of *pp*. This is followed by staves for Trombones 1 & 2 (Tmbns 1,2), Trombone 3 & 4 (Tmbns 3,4), and Trumpets (Trmp), with a dynamic marking of *f damp*. The next staff is for Bass Guitar (B-Gtr), featuring a *f* dynamic and a *gliss* marking. The bottom section of the score includes staves for Cello Solo (Celli soli) and Double Bass Solo (D-B Soli), both marked with a *p* dynamic and the instruction "(con vib)". The score is written in a common time signature and features a prominent parallel 4th bass line in the lower instruments.

Fig.1d: Vernacular learning accommodated on bass in Bedford's Star's End (20'36)

ffff Tutti 4 Secs

Flts 1, 2, 3

Obs 1, 2, 3

Clk 1, 2, 3

Bsns 1, 2, 3

Tpts 1, 2, 3, 4

Hrns 1, 2, 3, 4

Tmbns 1, 2, 3

Tuba

Timp

El Gtr

B Gtr

Perc Cym, Dr

Vlins 1,2,3, 4,5,6

Vlas 1,2,3

Clli 1,2

D-B

strings: con sord non vib ppp

Both guitars: up and down in semitones, wawa / fuzz ad lib

damp all cymbals after striking

ad lib

sm.t.t.

med cym.

h.h.

3

3, 3, 3

larg. ff.

Fig.1e: Open gestures sympathetically orchestrated in Bedford's Star's End (pt2: 2'35)

Flute 1,2,3,4

Oboe 1,2,3,4

6

Trp 1,2,3,4

con sord

mp

imbnes balanced with Bass Gtr

con sord

con sord

con sord

El. Gtr

B. Gtr

Perc

med cymb

mf damp

gliss by increasing hand pressure while playing med tt

Vlins 1,2,3,4,5,6

mf

mf

mp

pp

pp

mf

mf

pp

pp

mf

Vlas 1,2,3

mf

pp

mf

Celli 1,2

mf

D.B.

Fig.1f: Strong ergonomic vernacular gesture, orchestrated in Bedford (pt2: 16'34)

Guitars = slide glass object (achromatic, jamjar, bottleneck, ...) up and down full length of indicated strings, following the written pattern.

(♩ = 60 $\frac{4}{4}$)

El Gtr
mp

B-Gtr
A
mp

Vlins 1
8ve
a niente

El Gtr

B-Gtr

1 2 3 4

String Soli. Glissando up and down top half of indicated string on natural harmonics, following the written timing strictly.

4 Cello soli mp

sul A Timing as D-B 1

sul D Timing as D-B 2

sul G Timing as D-B 3

sul C Timing as D-B 4

mp

sul G Top of gliss on 2nd beat, bottom on 4th

1 2 3 4

sul D Top of gliss on 1st beat, bottom on 3rd

sul A Top of gliss on 4th beat, bottom on 2nd

sul E Top of gliss on 3rd beat, bottom on 1st

D-B Soli

Fig.2: 'Motown' use of pitch and rhythm in Nyman's The Fall of Icarus, mvt.6: the triplet hemiolas sound routine in performance, following the periodic accents.

THE FALL OF ICARUS #6 - MICHAEL NYMAN

♩ = 70

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Fig.3a: Serial bass theme & contrapuntal funk in Pristker's Lost Illusions (1st mvt.)

The musical score is divided into three systems, each containing multiple staves for different instruments. The first system (measures 12-13) shows the initial entry of the serial bass theme in the bassoon and electric bass, with other instruments providing harmonic support. The second system (measures 14-15) continues the development of the theme, with the electric bass and bassoon playing a rhythmic funk pattern. The third system (measures 17-18) features a more complex contrapuntal texture with multiple instruments playing the serial bass theme in different registers and textures. Dynamics such as *f* (forte) and *mf* (mezzo-forte) are indicated throughout the score.

-5-

-6-

Fig.3b: Polyphonic bass over 'indigenous collage' in Pristker's Lost Illusions (2nd mvt.)

The musical score is divided into two systems. The first system covers measures 72-74, and the second system covers measures 75-77. The instruments and parts are as follows:

- Clarinet (Bb):** Treble clef, starting at measure 72 with a *p* dynamic, moving to *mp* by measure 74.
- Bassoon:** Bass clef, starting at measure 72 with a *p* dynamic, moving to *mp* by measure 74.
- Trumpet (C):** Treble clef, starting at measure 72 with a *p* dynamic, moving to *mp* by measure 74.
- Trombone:** Bass clef, starting at measure 72 with a *p* dynamic, moving to *mp* by measure 74.
- Drum Set:** Treble clef, playing a rhythmic pattern starting at measure 72.
- Violin:** Treble clef, starting at measure 72 with a *p* dynamic, moving to *mp* by measure 74.
- Solo electric bass:** Bass clef, starting at measure 72 with a *mf* dynamic, playing a polyphonic bass line.
- Samplestra 1:** Treble clef, containing a vocal sample: "1. Wodaabe female voice From West African republic of Niger". It includes a "Lay back - till *" instruction.
- Samplestra 2:** Treble clef, empty.
- Samplestra 3:** Treble clef, empty.
- Samplestra 4:** Bass clef, containing a vocal sample: "2. Kyapo Indians male voices from central Brazil".
- Samplestra 5:** Treble clef, empty.

The second system (measures 75-77) continues the instrumental parts and the polyphonic bass. It includes a "Lay back - till *" instruction for Samplestra 1 and a new vocal sample for Samplestra 3: "3. Ba-Nenjelle Pygmies male voices from central African Republic".

Fig.3c: Complex bass writing in Pristker's Lost Illusions (1st mvt.)

34

Fl.

Ob.

Cl.

B. Cl.

Bsn.

C. Bsn.

Tp.

F.H.

Tb.

Pf.

Drms.

Elec. Bs.

VI. 1

VI. 2

Va. Pizz

Vc. Pizz

mf

f

Detailed description: This page of the musical score covers measures 34, 35, and 36. It features a full orchestral ensemble. The woodwinds (Flute, Oboe, Clarinet, Bass Clarinet, Bassoon, and Contrabassoon) and strings (Trumpet, Horn, Trombone, and Tuba) are marked with a mezzo-forte (*mf*) dynamic. The percussion section includes Drums and Electric Bass. The electric bass and string sections (Violin 1, Violin 2, Viola, and Violoncello) are marked with a forte (*f*) dynamic. The electric bass part is particularly complex, featuring dense sixteenth-note patterns and triplets. The string parts also show intricate rhythmic patterns, with some triplets and sixteenth-note runs. The piano part has a steady eighth-note accompaniment. The drum part consists of a consistent rhythmic pattern.

37

Fl.

Ob.

Cl.

B. Cl.

Bsn.

C. Bsn.

Tp.

F.H.

Tb.

Pf.

Drms.

Elec. Bs.

VI. 1

VI. 2

Va. Pizz

Vc. Pizz

mf

f

Detailed description: This page of the musical score covers measures 37, 38, and 39. The instrumentation and dynamics remain consistent with the previous page. The woodwinds and strings are marked *mf*, while the electric bass and strings are marked *f*. The electric bass part continues with its complex, rhythmic patterns, including triplets and sixteenth-note runs. The string parts also maintain their intricate rhythmic patterns. The piano part continues with its steady eighth-note accompaniment. The drum part continues with its consistent rhythmic pattern.

Fig.3d: Ineffective bass writing in Pristker's Lost Illusions (1st mvt.): repeated harmonics, unprepared

The image displays two pages of a musical score, pages 52 and 56, for Pristker's *Lost Illusions* (1st mvt.). The score is arranged in a standard orchestral format with multiple staves for each instrument.

Page 52: The score begins at measure 52. A rehearsal mark \downarrow 116 is placed above the Flute staff. The Flute, Oboe, Clarinet, Bass Clarinet, and Bassoon parts all play a simple, repeated harmonic pattern starting at measure 116, marked with a piano (*p*) dynamic. The Trombone, Horns, and Trumpets have rests. The Piano part features a complex, rhythmic accompaniment. The Electric Bass part has a melodic line marked *mf*. The Violin and Viola parts have rests.

Page 56: The score continues at measure 56. The Flute, Oboe, Clarinet, Bass Clarinet, and Bassoon parts play a repeated harmonic pattern, marked with a forte (*f*) dynamic. The Trombone, Horns, and Trumpets have rests. The Piano part has a complex, rhythmic accompaniment. The Electric Bass part has a melodic line marked *mf*. The Violin and Viola parts have rests.

The overall impression is one of ineffective bass writing, characterized by repeated harmonics and unprepared dynamics.

Fig.4: Classical concision in Downes' Concerto for Guitar, Bass Guitar & Strings (3rd mvt.)

Musical score for measures 50-54. The score is for Guitar, Bass, Violin I, Violin II, Viola, Violoncello, and Double Bass. Measures 50-54 feature a rhythmic pattern of eighth notes with accents. The guitar and bass parts are marked *ff*. The string parts (Violin I, Violin II, Viola, Violoncello, and Double Bass) are marked *f* or *ff*.

Musical score for measures 55-59. The score is for Guitar, Bass, Violin I, Violin II, Viola, Violoncello, and Double Bass. Measures 55-59 feature a rhythmic pattern of eighth notes with accents. The guitar and bass parts are marked *mp*. The string parts (Violin I, Violin II, Viola, Violoncello, and Double Bass) are marked *mp*. The Viola and Violoncello parts are marked *arco*.

Musical score for measures 60-64. The score is for Guitar, Bass, Violin I, Violin II, Viola, Violoncello, and Double Bass. Measures 60-64 feature a rhythmic pattern of eighth notes with accents. The guitar and bass parts are marked *cresc.* and *mf*. The string parts (Violin I, Violin II, Viola, Violoncello, and Double Bass) are marked *cresc.* and *mf*.

Guit. *f cresc.* *ff*

Bass *f cresc.* *ff*

Vln I *f cresc.* *ff* *arco* *fff*

Vln II *f cresc.* *ff* *fff*

Vla *cresc.* *f cresc.* *ff* *fff* *fff*

Vc. *cresc.* *f cresc.* *ff* *fff* *fff*

Db. *f* *ff* *fff* *fff*

Guit. *ff* *70*

Bass *ff*

Vln I *mf subito* *mp*

Vln II *mf subito* *mp*

Vla *mf subito* *mp*

Vc. *pizz.* *f* *f cresc.* *ff cresc.* *fff*

Db. *pizz.* *f* *fff*

Guit. *fff* *75*

Bass *fff*

Vln I *f*

Vln II *f*

Vla *f*

Vc. *f*

Db. *pizz.* *ff* *ff*

Fig.5: Writing to Patitucci's strengths in Turnage's Prayer Out of Stillness (2nd mvt.)

6 String Bass Guitar Solo

82

Faster $\text{♩} = 96$

mp *p* *mf* *p* *pp* *mp* *pp*

VI I *p* *mf* *p* *mf* *p* *mf*

VI II Half Tutti *p* *mf* *p* *mf* *p* *mf*

Vla Half Tutti *p* *mf* *p* *mf* *p* *mf*

Vc Half Tutti *p* *mf* *p* *mf* *p* *mf*

Db (pizz) *mf*



6 String Bass Guitar Solo

88

(3.2)

Solo based on scales

pp *mp* *p*

VI I (Tutti div) *pp* (sul tasto) *pp* *p* *pp*

VI II *pp* *pp* *mp* *pp* *pizz* *mp*

Vla *pp* *pizz* *mp* *pp* *pizz*

Vc (Tutti div) *pp* *pp* *p* *pp* *pp*

Db *pp* *pp* *pizz* *mp*

R

94

6 String Bass Guitar Solo

VI I

VI II

Vla

Vc

Db

p *pp* *p* *pp*

p *pp*

(pizz)

(sul tasto)

(pizz) arco, sul tasto

p *pp* *p* *pp*

(*pp*) (*pp*)

(pizz) *mp* *mp*

Fig.6a: Aperiodic hammering beneath woodwind sweeps in Maier's Bassconcerto (1st mvt.)

The image displays a page of a musical score for Maier's Bassconcerto (1st mvt.), specifically measures 187 to 194. The score is arranged in a standard orchestral layout with multiple staves. The woodwind section (Flute, Clarinet 1 & 2, Saxophone) features a complex, aperiodic rhythmic pattern described as "crazily, like a gush of wind" (with a note to breathe in between if necessary). This pattern is characterized by rapid, irregular eighth-note runs. The brass section (Trumpets 1 & 2, Trombones 1 & 2) has a "take off sord." instruction, indicating a change in articulation. The Euphonium and Bass parts also show rhythmic activity, with the Euphonium part marked with a *mf* dynamic. The Percussion part is mostly silent, with some light activity indicated by a *pp* dynamic. The score includes dynamic markings such as *pp* (pianissimo) and *mf* (mezzo-forte), and a *sf* (sforzando) marking in the Trumpet 1 part. A rehearsal mark 'K' is placed at the beginning of measure 187, and a rehearsal mark 'L' is placed at the beginning of measure 194. The overall texture is dense and rhythmic, with the woodwind parts creating a sense of chaotic, aperiodic motion.

Fig.6c: Clear solo material of contrasting pitch range in Maier's Bassconcerto (4th mvt.)

The image displays a page of a musical score for Maier's Bassconcerto (4th mvt.), starting at measure 105. The score is arranged in three systems. The first system includes Flute (Fl.), B♭ Clarinet 1 (B♭ Cl. 1), B♭ Clarinet 2 (B♭ Cl. 2), Soprano Saxophone (S. Sax.), Alto Saxophone (A. Sax.), and Bass Saxophone (B. Sax.). The second system includes Horn (Hn.), Piccolo Trumpet (P. Tpt.), C Trumpet 1 (C Tpt. 1), C Trumpet 2 (C Tpt. 2), Trombone 1 (Tbn. 1), Trombone 2 (Tbn. 2), and Bass Trombone (B. Tbn.). The third system includes Euphonium (E.B.) and Piano (Pno.).

The tempo and mood are marked "subito dolce e lirico". The score features a clear solo material of contrasting pitch range. The flute and bass saxophone parts are marked "only air" and "sfz". The clarinets, saxophones, and trumpets are marked "ppp" and "p". The trombones and euphonium are marked "sfz". The piano part is marked "fff".

Measure 105 is marked with a "subito dolce e lirico" instruction. The flute part begins with a melodic line, followed by the bass saxophone. The clarinets and saxophones play a sustained "ppp" texture. The trumpets and trombones play a sustained "sfz" texture. The euphonium plays a melodic line. The piano part is marked "fff".

Fig. 7a: Bass embedded into orchestration in Riley's Sub Merge (1st mvt.)

warm, but delicate
♩ = 52

Violin I a
Violin I b
Violin II a
Violin II b
Viola a
Viola b

with discreet delay / reverb

(sounds octave lower)

Bass guitar
mp
3.8(E)
12(C)
3.2(D)
3.8(G)
2.1(C)
9-13(D)
8.9(D)
ppp

Percussion 1
Percussion 2
tam tam
pp

Harp

Violoncello a
Violoncello b
Contrabass
ppp

Vln I a
Vln I b
Vln II a
Vln II b
Vla a
Vla b

Bass
21(G,D,A)
5(A)
21/E
3.8(D)
3.8(G)
5.9(C,G)
2.3(C)
5(G)
17(C,G,D)
21(C)
22(G)
3.8(E)
ppp

Perc 2
tuned gongs
pp

Vc. a
Vc. b
Cb.
ppp

13

Vla a *ppp*

Vla b *ppp*

Bass

5.9(G,D) 21(G) 5.9(G) 5(G) 9-13(D) 5.9(C) 2.1(C)

3.2(E) 3.8(E) 8.9(G,DA)

Perc 2 *pp*

Vc. a *ppp*

Vc. b *ppp*

Cb. *ppp*

20

Vln II a

Vln II b *ppp*

Vla a *ppp*

Vla b *ppp*

Bass

17(C) 17(G,D) 21(B) 2.1(G,D) 9(G,D,A) 5.9(C) 5(E)

16(D) 17(A) 7(G)

Perc 2 *pp*

Vc. a *ppp*

Vc. b *ppp*

Cb. *ppp*

25

Vln I a

Vln I b

Vln II a

Vln II b

Vla a

Vla b

Bass

Bass

Perc 1

Perc 2

Hp

Vc. a

Vc. b

Cb.

mf *f*

ppp *f*

ppp *f*

ppp *f*

ppp *f*

ppp *f*

12(G) 2.1(A) 3.8(D) 2.1(A,E,B) 2.1(C,G) 8. *f* 2.3(C,G,D) 5.9(G) 5.9(A,E) 'neck wobble' ad lib

chinese cymbal (1) suspended cymbals (3)

pp *f* *mp*

mp *mf*

pp *f* *faster*

E♭ F# G♯ A♯
B♯ C# D#

Fig. 7b: Groove material made unfamiliar in Riley (1st mvt): hemiolas and developmental texture

54

Vln I a

Vln I b

Vln II a

Vln II b

Vla a

Vla b

Bass

Perc 1

Perc 2

Hp

Vc. a

Vc. b

Cb.

58

Vln I a

Vln I b

Vln II a

Vln II b

Vla a

Vla b

Bass

Perc 1

Perc 2

Hp

Vc. a

Vc. b

Cb.

Fig. 7c: Efficient contrasts of pitch range and articulation on bass in Riley's Sub Merge (2nd mvt.)

fast and slinky
♩ = 110

Violin I a

Violin I b

Violin II a

Violin II b

Viola a

Viola b

Bass guitar

Percussion 1

Percussion 2

Harp

Violoncello a

Violoncello b

Contrabass

Vla a

Vla b

Bass

Perc 1

Perc 2

Vla a

Vla b

Bass

Perc 1

Perc 2

Fig.7d: 'Portrait of Tracy' material in Riley's Sub Merge (3rd mvt.)

dark and jazzy
♩ = 80

Bass guitar

Bass

Vc. a

Vla a

Bass

Hp

Vc. a

Vla a

Bass

Hp

Vc. a

Fig. 7e: Fluid development of 'Portrait of Tracy' material in Riley's Sub Merge (3rd mvt.)

Musical score for measures 52-56. The score includes parts for Bass, Perc 1, Perc 2 (two staves), and Hp. The Bass part features melodic lines with dynamic markings *mp*, *mf*, and *mp*. Above the Bass staff, rhythmic patterns are indicated: 3,2(G) over 2,7(A) and 2,3(A); 2,7(C,G,D,E) over *mf* and *mp*; 3,8(D,G) over *mp*; and 2,3(C,G,D) over *mf* and *mp*. Perc 1 and Perc 2 parts consist of rhythmic patterns with dynamic markings *p*. The Hp part features a melodic line with dynamic markings *p*.

Musical score for measures 57-61. The score includes parts for Bass, Perc 1, Perc 2 (two staves), and Hp. The Bass part features melodic lines with dynamic markings *mf*, *mp*, *mf*, and *mp*. Above the Bass staff, rhythmic patterns are indicated: 7(D,G,C) over *mf* and *mp*; 9,7(G,D,A) over *mf* and *mp*; 3,2(G,D,A) over *mf* and *mp*; 21(E,D) over *mf* and *mp*; 8,9(G,E) over *mf* and *mp*; 2,7(C,G,D,E) over *mp*; 3,2(C,D) over *mp*; 3,8(C,D) over *mp*; and 5(C,D) over *mp*. Perc 1 and Perc 2 parts consist of rhythmic patterns with dynamic markings *p*. The Hp part features a melodic line with dynamic markings *mp*.

Commentary: The Portfolio

Early works

Funk Framework no.1 for piano quartet (2004)

Students of Chamber Music International summer school

Directed by Simon Lesley

Purcell School, August 2004

3'22

'N Bass for bass guitar solo (2006)

Ben Markland – bass guitar

Recorded South Birmingham College, June 2007

4'06

These two works represent the birth of this research project: the initial motivating issue of improvisation in composition – the attempt to reconcile differing sound-worlds, musical practices and expectations – and its subsequent focus on the bass guitar. It was Peter Wiegold's observation about the left hand of *Funk Framework no.1*'s piano line that led the research to move bass-wards. The discussion here focuses necessarily on the whole compositional process because of the differing approaches of bass guitarists, and because compositions are only a success if they work in practice.

Both pieces owe much to funk grooves. Grooves offer energy, immediacy, polyrhythm, and tirelessly drive music forward – real gifts to a composer, whose biggest challenge is often one of structure and direction. Like Colin Riley, I felt the need to alter enough of the groove's musical parameters for it not to sound generic, somehow to preserve a sense of 'artiness'. Grooves feature a few times in the portfolio, being part of both the bass guitar's and my own heritage. The level of improvisation is an important issue, forming another thread throughout the portfolio.

The groove-like material of *Funk Framework no.1* is rendered more unique/non generic by its aperiodic structure and uncharacteristically classical instrumentation of piano quartet.

Expressed in bars, the opening 41-bar section is structured according to a number series seen in the table below. This irregular mathematical construct owes more to abstract modernist composition techniques than to funk performance practice, which generally relies on 2- or 4-bar phrases. The aperiodicity of time signatures throughout the work is similarly indicative.

bar nos.	Piano left hand phrase	Answering chord with squeaks
1-7	1	6
8-14	2	5
15-21	3	4
22-28	4	3
29-35	5	2
36-41	6	-

At bar 42, exploring the issues of improvisation and player licence, a 21-bar section starts which should be repeated three times. Every three bars, players are either given obligato material, or decide on one of three *ad lib.* lines. By ensuring that at least one player has an obligato line for each of its seven 3-bar sections, I retain some compositional identity throughout, despite a considerable amount of player freedom. Throughout the work, though, there is loosely notated material that sometimes resembles a sketch or graphic score. I like the energy this has afforded the players, evident, I think, in performances of some commitment and abandon.

The principal reason for the success of the improvisational elements here, and the clear compositional voice that emerges, is that I really only notate rhythm and gesture: there is little requirement for improvised precise pitch, this being reserved for obligato lines only. I found gestures a fun material to work with – not dissimilar to a Carl Stalling cartoon score – and a good way to engage players’ creativity and commitment. Gesture is permissive, rather genre-less and thus easily approached by any player. Where more pitch specification is required (beyond the high/low, rising/falling information in most of this piece) chord symbols or square-bracketed ‘pitch sets’ may be effective (see violin and viola in the second 3-bar section after bar

42, for example). Even these can be limiting, however, and might slow or inhibit the improviser.

While a piano quartet is traditionally performed without a conductor, this piece was conducted because of a lack of ‘signposting’. The indeterminacy of the material from bar 42 onwards makes it impossible for players to learn particular cues; another aural ambiguity is the frequent rests on beat 1 of a strong bar. This last feature is a rhythmic trait of mine that comes from a pop music oriented listening experience: a backbeat and strong ‘1’ is internally assumed and, thus, funky pitched material goes rhythmically across it.

Funk Framework no.1 owes as much to contemporary art music as it does to funk, and I am pleased with the vitality and social politics of this. Promisingly, there is a clear compositional voice, and a committed and entertaining performance. Both these pieces demonstrate that I am comfortable with episodic forms; my piano writing is effective, as is my phrase extension in the left hand phrases of the opening section. However, my sense of line is perhaps cumbersome with its awkward intervals, and there is little foreground material except that of the piano left hand, and bright doo-dap features in the strings at bar 42. No doubt the uneasy lines and ‘back-line’ texture are a result of my pop music listening experience – instrumental parts in pop being mostly in a supporting role to the vocalist.

In *N Bass*, as the name suggests, the central ideas were to mimic the high energy, high tempo ‘trippy’ rhythms and filter-heavy production of drum’n’bass, and to wrest the bass guitar away from its partnership with drum kit. Beyond a general concern for development over repetition, there was little ‘art music’ intention here. Rather the focus was on exploring the instrument’s wide range of sounds, played with non-standard techniques, in a pattern-based structure.

The overall effect of *N Bass* resembles the genre-based unaccompanied pieces of Squarepusher or Adam Nitti. But there is a fundamental difference of creative processes – their work is self-

composed, kinaesthetically learned, whereas I was stuck with the limitations of score and subsequent interpretation. The complex notation¹ was immediately a barrier for Ben, my bassist, and, despite an approachable pattern-based structure, the learning process was frustrating. Score's tendency to exert authority also took away much of Ben's sense of permission/engagement, as did a hushed studio environment. He would have benefitted from the looser determinacy of *Funk Framework no.1* cells, for example in bars 3-9, or at letter C (1'01). By notating every feature of the piece, the balance of vernacular vitality and unique compositional voice is not quite right – as the 'safe'-sounding, highly edit-spliced demo recording attests.

Many of the timbres and techniques in '*N Bass* are also impractical. When amplified, the tapped artificial harmonics at A (0'19) are so subtle that they are of equal volume to extraneous string noise, making them difficult to achieve clearly, and impossible to balance with the *fortississimo* rest strokes at B (0'41), which would be damagingly loud with the same amp settings. The changes of technique are also too quick. The combination of diad free-strokes with right hand tapping/scratching at E (2'05) turns the right hand into an awkward sideways position not conducive to clear tone or consistent articulation.

N Bass embodies my initial exploration of the instrument, feeling my way and responding to sounds, as would an experimenting child. The problem was that I did this without amplification, underestimating its impact on the final sound. But the naïve exploratory process had many positives. It gave me fresh ideas and novel techniques that a teacher might suppress, that a seasoned player like Ben found startlingly original: the half-fundamental-half-harmonic technique at B (0'41), for example; the opening fingernail flanger effect; and the complexity and

¹ The notation is complex because of the non-standard techniques. Since '*N Bass* I have adapted the notation style further – see page 62 for a fuller discussion of this. (Briefly, I abandoned the overly-prescriptive *sul pont-sul tasto* numbering system of the opening bars, and also the five-band EQ diagrams.)

timbral metamorphosis from bars 81-F (2'00-3'13). It meant that I intuited fundamental properties of the instrument: its ability to shock through sudden juxtapositions of pitch, dynamic, timbre and articulation (heard throughout); its basic mechanics of tuning keys and pick-ups (the mic taps at bar 21, the final de-tuning). These constitute critical steps in the learning process that allowed me to develop the integrated bass writing of subsequent pieces.

Revealingly, however, I placed the technical exploration of '*N Bass*' in the setting of a familiar genre – exactly reflecting the working practices of players Squarepusher and Nitti, and indicative of pop expectations of the instrument. My immediate response to the bass was to work muscularly with what I had heard it do up to that point: that is, fusion patterns, in their rhythmic detail and the major and minor 10ths that are so easy for the left hand to play.

The strengths of '*N Bass*' are in my understanding of where the bass was at stylistically, and that I pushed these boundaries in a contemporary way. Weaknesses remained, however: in my misunderstanding of amplification and instrumental technique; in my didactic compositional process; and, critically, in my failure yet to free the bass from its received role. It made sense, therefore, to compose in a more overtly 'art music' manner in *Serial II* and *Sequenza*.

Serial II and Sequenza

Serial II for bass guitar solo (2008)

Winner of the John Mayer Memorial Prize

Ben Markland – bass guitar

Recital Hall, Birmingham Conservatoire, 3rd March 2008 (live)

Recorded Birmingham Conservatoire, April 2010 (studio)

4'50

Sequenza for bass guitar solo (2009)

Simon Lesley – bass guitar

Recorded Birmingham Conservatoire, March 2009

11'15

Composing a *Sequenza* for bass guitar seems a strong idea. The instrument has not undergone the same technical and timbral art-music examination as many orchestral instruments. A *Sequenza* assesses whether the bass is capable of the levels of nuance, subtlety, extreme performance and experimentation seen in Berio's series.

Serial II was designed as a study piece for the *Sequenza*. It sets neo-classical phrase development and bare dissonance on a popular music instrument. It is serially disciplined, has a classical clarity of theme, yet in its rubato there is an easy feel of unaccompanied jazz improvisation. The row assists the socio-contextual ambivalence; seen at bar 14 (B \flat -E \flat -C-B-A \flat -G \flat -F-E-A-C \sharp -D-G-C \sharp -F \sharp) it balances 12-note atonality with a jazz-based use of pitch: consonant yet modulating perfect fifths/major third (B \flat -E \flat , E-A-C \sharp , D-G); passing semitones (C-B, G \flat -F-E, C \sharp -D); sixth chords (B \flat -E \flat -C, B-G \sharp -F \sharp); minor/major sevenths (C-B, G \sharp -F \sharp , G \flat -F, F-E). The cerebral serial approach contrasts strongly with predominantly 'felt' vernacular methodology.

The piece aims to showcase the bass guitar's broad expressive abilities, and to avoid the impracticalities of *N Bass*. Bars 1-13 demonstrate the instrument's full pitch range, from highest harmonic down to lowest fundamental (at bar 8) and back again. Section A examines

the mellifluous ‘singing mid range’; an area of warm lo-mid that spans frets III-X. Systematic compositional processes of inversion, augmentation etc. help to produce some highly unfamiliar material: the rhythmless opening series of artificial harmonics in ‘broken’ articulation (reminiscent of Webern’s pointillism); low dissonant triads lightening in tone in bars 8-12; the wide contrapuntal *espressivo* lines in 22-28; moments of ‘difficult’ dissonance in the jarring angular intervals of 31-38; luxuriant four-note arpeggiated chords with melody at 39. The malleability of unaccompanied solo performance affords the player time to negotiate these novel challenges.

However, three issues arose when working on *Serial II* with Ben, firstly, in left hand technique. Despite the free time of the opening passage, the complexity of necessary left hand shapes made the harmonic chords almost impossible to connect fluently. Despite using a volume pedal to mute unwanted string noise during connections, Ben’s struggles are evident in the live recording (track 4): the cleaner studio recording (track 5) is heavily edited and compressed for evenness of volume/attack. Left hand physicality is also an issue when string-crossing within a four fret ‘box’, making bars 31, 32 and 37 very difficult.

Secondly, in employing rubato and *espressivo* phrasing. The norm on bass guitar is an even, punchy attack, most usually monophonic, with a rhythmically-driven motivity, achieved through definite rest-strokes, sometimes in combination with compression. So the free tempo and lilting phrases, especially at the opening and at A, initially lacked the subtle expression that a cellist might bring them. Ben had to consider lighter free-strokes, duration of long notes against contrapuntal material, and pacing of poetic space like a Debussy piano prelude.

Thirdly, in prescribing right-hand technique, timbre, and dynamic gesture: when to play sul pont; which strings to play a certain pitch on; whether to pluck unusually with fingernail or thumb; the articulation of a spread chord. It is these techniques that Pete Wilson described

would ‘scare players rigid’. (Bassists usually control sound through technological set-up and, furthermore, develop a fixed personal sound that defines them.)¹

Here, then, arose fundamental questions about whether classical-guitar-like performance practice was workable on bass, and what a classical bass guitar set-up might be. In theory, players can control their sound at source, as I did when writing these pieces unamplified, but clearly it is not usual in bass culture. The physics of the instrument also means that much of its expressive/timbral scope is compromised when amplified: there is no sound-board, and the pick-ups are placed at only two points along the strings. Furthermore, pick-ups and amplifiers are designed to produce an even, lo-mid-focussed sound. The performance of dynamic gesture is thus limited: plucking a crescendo through an amp risks uncomfortable peaks in volume, and encourages the cone drivers to produce increased bass.

There is, however, some consensus on what ‘a nice sound’ might be: a rounded, warm tone, not extreme, with some clarity and no protruding frequencies. The consensus comes partly due to physics, partly by engenderment. Pete Wilson further asserts that a classical bass should sound ‘as much like itself as possible’,² indicative of a central recognition, and of my interest in sympathetic amplification of the source sound.

In working through these problems in *Serial II*, solutions presented themselves. Ben chose an Image Coda amplifier, designed to replicate acoustic instrumental sound, whose flat EQ and downward-facing cone resulted in a warm tone with none of the overt ‘electronic-ness’ of some amplifiers. His selection of worn-in strings added to this: they lack the metallic brightness of brand new ones. Coated strings also ensure a consistently rounded tone.

¹ This was neatly evidenced when working with Fred Baker on *A Few Thoughts On Creation* – he complained that, if I asked him to employ a certain technique, he wouldn’t be able to get ‘his sound’.

² Pete Wilson, personal communication, 2010.

A key factor in facilitating timbral and dynamic variety was to reduce lo-mid EQ to offset the propensities of the amplifier, an approach adopted throughout the portfolio. At first, all my bassists were uncomfortable with this, feeling somehow emasculated. Nevertheless, lighter EQ succeeds in softening the received, all-encompassing fundamental tone of the bass guitar, allows player-controlled expression through, and leaves space for other instruments in orchestration. Ben also came to recognize the need to exaggerate differences of technique in order to compensate for the pick-ups' tendency to compromise them.

I feel *Serial II* is a success artistically, and in its concern for cultural equality. The *delicatissimo* opening surprises the listener, perhaps expecting something brasher from the bass guitar. The piece is well structured and the material is inventive and clear. Importantly, it is largely well written for the bass guitar, and succeeds in demonstrating the expressive capabilities of the instrument.

In writing the *Sequenza*, I felt more confident of the performance practicalities detailed above. Inspired by Eliot Fisk's virtuoso rendition of Berio's *Sequenza XI* for classical guitar (1994), I chose to be uncompromising in my material: I wanted to set a benchmark of art music virtuosity, disregard current bass performance culture, and concentrate on the classical concept of a 'work'. Thus the score is completely dictatorial in its minutely detailed notation.

Fig.8 overleaf details Berio's approach to sequenzas, taken from Porcaro (2007), which I found very informative in constructing art-modernist material. I wanted to match Berio's work as closely as possible. Reflecting elitist definitions of art music, I aimed to rid the bass guitar of worldly/vernacular influence. Also, in keeping with Berio, the examination of extended technique is focussed on the player and instrument at source: technological issues are entirely secondary here; I worked throughout with the lighter EQ sound detailed above.

in focus, out of focus
 stasis, flux
 related, unrelated

 Virtuosity, idiomatic writing, polyphony

 Maximum, medium and minimum levels of tension

 Timbre, Intensity (or dynamic variation), Tempo,
 Frequency variation (or complexity of the articulation)

*Porcaro, M.D. (2007) 'A Polyphonic Type of Listening In
 and Out of Focus: Berio's Sequenza XI for Guitar'*

Fig.8: Sequenza descriptors from Porcaro

The *Sequenza* allowed me to settle on a notation system (see Vol.2/iv). From classical guitar notation I use **p i m a c** for right hand fingering³ and, for left hand, fret numbers in roman numerals and string numbers in a circle. From electric guitar notation I use circled note-heads for right hand hammer-ons, squared for left hand, and the instruction P.M. with continuation bracket for palm muting. From bowed string notation I use the symbols for slap and fingernail pizzicato, direction of strum arrows, and diamond note-heads at harmonic nodes. Any technological changes are signalled over the top of the stave with either boxed text or a large bracket.⁴ I also invented two symbols – one for scratching the string, one for rubbing a fret. Two ambiguities remain, however: firstly, confusion in the direction of strum arrows and harp arpeggiation arrows – whether it is ‘up’ physically or pitch-wise; secondly, whether roman numerals signal the fretting position of the exact note, or of the index-finger barre.

³ **p** = pulgar/thumb, **i** = indice/forefinger, **m** = medio/middle finger, **a** = anular/ring finger, **c** = chico/little finger

⁴ I later abandoned the five-band EQ diagrams seen in *'N Bass and A Few Thoughts On Creation*. Whilst they represented a good approximation of relative EQ, they confused technically-savvy bassists, who demanded further specific frequency information, or pointed out they were using a flat amp, so what did I mean? I settled on a short written description of tone and mood, backed up by consultation.

Structurally, the parameters of stasis, flux, and focus in/out, are well controlled. This is achieved through judgement of pace, from isolated notes, then phrases, to busy melismas; from long pauses, then free time to metered tempo. Pitch-wise also, there is a designed gradation, narrow to wide. The opening is tightly disciplined around the pitch E and surrounding microtones up to a semitone away. In the second bar of the fifth system (0'56), the same process works on D, widening up to a tone away. At letter A (2'22), major thirds appear, and in bitonal juxtaposition a tritone apart, offering more chordal possibilities and opening the full chromatic range. 'Out of focus' sections are beyond these parameters, being more pitchless (for example, at the end of fifth system of page 4 (5'12)) or consonant (the end of the third system of page 6 (7'16)). These gradations of pitch assist in Porcaro's levels of tension.

The writing for bass guitar is also successful. As a broad concept, I wanted to reflect Berio's *Sequenza XI*, where he offsets the classical guitar's 'natural voice' – through open strings and wood tapping – against fretted, complex, designed dissonance. Working with the bass guitar are my pitch focuses on E and D, natural harmonics, and the open-string collage at 5'12; working against it are considerable intricacy, chromaticism and extremes of timbre.

Timbre is affected by choice of fretted or open strings, and of string number; also by left-hand fretting position: near the neck a slightly thin/angular tone, further up the rounded 'singing middle'. At the highest frets, notes are intense and pinched on high strings, or very boomy on low strings. Right hand technique is similarly effective: since its placement *sul pont/tasto* is compromised by the fixed pickups, more important is the variation of attack by different fingers (**p i m a c**) and tissue density: fingernail, bony fingertip, fleshy finger 'pad', or plectrum. It is most effective to combine sympathetic right and left hand techniques: for example, a very thin tone is achievable by plucking with the fingernail very near the bridge on a high string at frets I-III; similarly, the boomiest tone is achieved by plucking with the soft thick part of the thumb, centrally over the neck pick-up or *sul tast*o, on the E string around fret XV. This inverse,

mirroring pattern works with the physical tension in a string – taut at its extremes, looser in the middle – and is exaggerated by choice and style of plucking finger.

Further timbral subtlety is achieved by palm muting, tapping, scratching or rubbing the string.⁵ Tapping can be a dead stroke, or can initiate a pitch of thin tone; tap-and-quick-release can produce bell-like tap harmonics; tapping can be done polyphonically and contrapuntally by two hands. Scratching can likewise be dead, or released to allow a pitch to ring; it can be controlled in speed and pitch, from creaking growls to insect-like twittering. Rubbing creates an eerie niente attack with a percussive element. Microtonal combinations of pitch create beat phenomena.

Much of this crosses over into articulation. To *Serial II*'s broken/latent arpeggiation, simple slurs and occasional pull-off, in the *Sequenza* is added a complexity of embellishments – trills and tremolandos (slurred and *detaché*), rasgueados, glissandos, collections of acciaccaturas at pitch and at intervals up to a tenth, vibrato, bends and fades before, during and after attack – often in unusual combinations. Particularly unique, though subtle, are harmonics, slurred to full tone at the same pitch, giving a 'glitch-like' new attack during a note, perhaps microtonally altered because of string action (see the high E in the second system of the piece (0'24)); or, similar in effect, LH-tapped pitches that are then plucked, as in the repeating chords on the final page (9'43).

Many key aspects of good writing for the instrument derive from its nature as a precision bass, as the name of its formative model suggests. Hence, it is capable not just of pitch accuracy and varied inflection, but also of dexterity, speed, agility. A proviso being that left hand travel be not too complex, the bass guitar can be much livelier, unpredictable and wildly inflected than

⁵ I have avoided slapping and popping here in order to accentuate distance from vernacular practice, so culturally loaded is the slap sound.

many other bass instruments. I tried to write to these strengths throughout, successful ‘precise’ material being, for example, in the six bars before A (1’55), the opening section, and in the first system of page 2 (1’16). It is indicative of sympathetic writing that in every section there is material that could not be played on any other instrument.

Additionally, there is extensive use of the bass’s excellent 3½ octaves of harmonics – since *Portrait of Tracy*, bassists have been excited about them – which provide tonal alternatives for many pitches, and extend the pitch range of the instrument by a 12th (see fig.9). Add to this artificial harmonics, which can be fluently and melodically played, and the rich possibilities that harmonics give the bass are readily apparent. Given an appropriate technological set-up, a good instrument and a skilled player, all harmonics are entirely viable, a seamless continuation of the instrument’s sound-world.

Workable natural harmonics on bass guitar

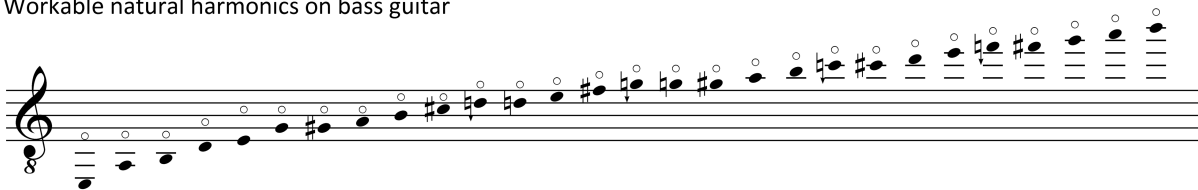


fig. 9

The notation and control of dynamics on an electric instrument can be problematic. For example, a player may attack the strings but with the amplifier set low, or vice versa. A player may control gestures by source performance, or, contrastingly, by even intensity with a volume pedal shaping the signal. My solutions are various: to acknowledge that dynamics are not absolute, but relative; to use written dynamics as a general indication of sounding volume; to qualify instructions with articulation markings and/or ‘mood words’ such as ‘piercing’, ‘strepitoso’ or ‘dolce’, because dynamics are about intensity not merely a number of decibels. The practicalities of dynamics may be left to the player, as for an organist; but if a particular

effect is required, such as a *niente* crescendo, or *martellato* at low amplifier volume, it may be specifically notated.⁶ A difficulty in the *Sequenza* comes after letter B, where muscular trills and hammering techniques are difficult to sustain at fortissimo.

Many of the techniques above, unfamiliar to bassists, are derived from common classical guitar performance practice, and provide much scope for the development of bass playing. Ben's humorous disparagement of *p i m a c* techniques highlight this cultural lag: he said they would give a 'shit sound' because they turn the right hand sideways (jazz/pop players tending to rely on uniform *i m* rest strokes), acknowledging that they might be good for 'timbre stuff'.

Certainly, dictating heavily notated modernist music to a bassist feels a little forced, not helped by my excessive notation. But I am very proud of the quality of the material, and hope I have succeeded in setting an art-music benchmark – the dense composition over an 11-minute duration was certainly a personal milestone. However, because of the unfamiliar and detailed material in both *Serial II* and *Sequenza*, I require a player to show dedication substantially beyond that of normal rehearsal. As I write, there has been no live performance of *Sequenza* – what you hear in track 5 is me, heavily edited once more.⁷

Reflecting on both *Serial II* and *Sequenza*, I became aware of the persistent nods in my compositional voice to jazz-fusion, for example in the consonant pattern-oriented third system of page 6 of the *Sequenza* (7'16). For this reason, and with the practicality of my research in mind, it seemed wise to work *with* current bass culture rather than against it. I resolved to base my subsequent work on what was currently practical to play, and to utilize vernacular vitality more.

⁶ A volume pedal crescendo can employ the sign: *Ped.*

⁷ I am comforted by the original recordings of Berio's early *Sequenzas* being likewise edited – Cathy Berberian, Vinko Globokar et al. (see Discography).

I Like It When The Bass Comes In

I Like It When The Bass Comes In for bass guitar and large chamber orchestra (2010)

Thallein Ensemble

Directed by Edwin Roxburgh

Pete Wilson – bass guitar

Adrian Boult Hall, Birmingham, 8th April 2011

19'02

The phrase, *I Like It When The Bass Comes In* betrays the issues around generic expectation: common in pop/dance music parlance, it implies the fundamental harmonic function and periodic punctuating riffs that characterize bass repertoire. Contradictorily, in this piece, the bass function develops organically, with no clear sense of it 'coming in'. Its principal focuses are the composition of unfamiliar bass material, the bass in art-music orchestration, and the collaborative process between composer and concertino soloist: in particular, how virtuosity and vernacular vitality are harnessed and facilitated.

In Pete Wilson's experience, this is one of the best pieces for bass and acoustic ensemble in demonstrating the breadth of what the bass can do.¹ Its 20-minute through-composed structure and 23-instrument orchestration are ambitious. The bass part was easily learned, and is successful in its art-music intentions. Disappointingly, the final performance does not help in appreciating the work: tentative and with many errors, the ensemble seemed under-rehearsed. I make no further comment on that here, however, and the analysis below focuses on compositional intention and preparation of the piece.

With ambiguity of bass function in mind, the bass emerges seamlessly from an incidental background role to a leading foreground one, tackling all kinds of material as the piece progresses: at bar 25, it plays pitchlessly in a percussive orchestration; at 37, isolated gestural

¹ Pete Wilson, personal communication, 2011.

phrases under busy material; at 58 a more sustained presence through a wandering drone effect with the double bass; at 69, bright harmonic bells; at 107, dramatic punctuating stabs with timpani; at 151, a more confident sound through the 'singing mid-range', used increasingly for a fuller voice at 210, finally emerging as soloist at 265, a fully melodic nature continuing through to the end. The ensemble material is highly gestural and textural, and not thematically led until the melodies of bar 377. Like *Funk Framework no.1*, the piece thus has a 'back-line' feel that helps the focus on bass function.

The instrumentation covers a wide timbral spectrum to prevent the bass seeming separate or 'other'. Like the Riley, Penderecki and Bazelon pieces, the electric bass is cemented into the acoustic ensemble by unusual percussive timbres, other electric and keyboard instruments; in this case a variety of chimes, piano and Rhodes piano complement the bass guitar harmonics and bell-like envelope. In addition, a reedy melodica connects electric timbres to acoustic. Acoustic instruments also mimic electrically-generated gestures, in the *niente* crescendos (strings at bar 37), delays (woodwind at 37), and sirens (brass at 226/234). At 210, the whole ensemble employs machinistic material, with alternate position changes on quickly repeating pitches, and arpeggiator-like repeating intervallic leaps that become the central solo bass loop-pedal feature at 264. The differing socio-musical worlds of bass and acoustic ensemble are thus woven together.

The structural design allows the bass to be heard episodically with different orchestral combinations: the percussive textures of the opening, the woodwind/brass episode at bar 151 and a predominantly string-textured episode at 210. At 267 a keyboard-rich episode commences, widening out into the final tutti material.

The central sections at bars 151, 210, 267 and 318 are built around a progression of 24 chords (fig.10), chosen for their varied use of pitch, texture and sonority, to suit the instrumentation. Levels of density and dissonance vary, with differing social signification: perhaps chords 4 and 13 are minimalist, chords 9 and 10 starkly modernist, chord 11 Messiaen-like, chord 17 a jazzy $m^{7(6/9/\#11)}$.

24 chord progression forming basis of episodes at bars 151, 210, 267 and 318 of *I Like It When The Bass Comes In*

1 2 3 4 5 6 7 8 9 10 11 b 12

13 14 15 16 17 18 b c d 19 20 21 22 23 24

fig. 10

My criticisms of the piece are that it is perhaps a little episodic, due to being constructed to suit contextual aims. With each chord of fig.10 being individually orchestrated, it could be said to be rather vertical in construct. The romanticism of the final melodies perhaps sits uneasily with the 'difficult' qualities of the opening. There are, however, some excellent, clearer flowing passages of considerable length and maturity.

There are three problems in the orchestration. The key clicking of bar 16 does not carry, and the high piccolo notes at 39 are difficult to play pianissimo. Most importantly, the orchestration requires not single strings, but a large string section to bring both volume and a warmer tone.

The weakest material is perhaps at bar 75. The awkward melodic line, overly complex microtones, alternate pitches and faltering meter are most likely symptomatic of an anxiety about art music: that it should be 'difficult', modernist or 'other'. This section shows none of the confidence of the socially-integrated passages from 151 to the end, or the clear compositional voice of *A Few Thoughts On Creation* and *Release the Penguins!*.

The piece's principal success is that of the bass part, a combination of good writing for the instrument and its technology, and good collaboration with the soloist. Good bass writing is seen, for example as follows: in the boomy combination of fret XII, soft thumb attack, 8vb pedal and slow durations at bar 58; in the harsh fingernail-strummed accents on dissonant chords at 136 that complement the metallic crackle of tam-tam and low baritone sax; in the simple instrumental mechanics of the detailed glissando/'take-off' gesture at 282 that supports the orchestral 'wash' textures; from 410 to the end, where the full range of the instrument is expressively explored, with changing right-hand attack like a classical guitar, palm mutes, harmonics, diads and triads enriching the successful melody.

The bass is inventively orchestrated. According to Andriessen when working with Icebreaker, 'whatever note the bass plays, that's the fundamental',² a result of its pure, insistent tone and also of generic presumptions. I go beyond this: the opening timbral and fragmented material frees the bass from its fundamental role; the expansive melodic range at bar 318 takes it out of its default position as the lowest instrument; the harmonic diad stab at 169 contributes to a cluster –

² Pete Wilson witnessed Andriessen's comment in rehearsal with Andriessen and Icebreaker in 1994 (Pete Wilson, personal communication, 2010).

the high C at 178 is clouded by an E Lydian chord, followed by ensemble instruments taking fundamental pitches; at 194, the pinched high E is again predominantly of timbral interest, opening out to a fundamental open string A that is clouded by adjacent bass clarinet and cello Cs. The warm unison doublings with trombone and baritone sax work well in the melody at 318, as do cor anglais, French horn and cello at 377. With surprising fragmented interruptions in the palm mutes and harmonics at 390 and 407, there is in fact little sense of Andriessen's fixed role. Rather there is a promising originality of orchestral interaction.

The subtleties of timbre and gesture work here because they are bolder than in the *Sequenza*: the finer points of solo work would not come across in ensemble, as would be the case for classical guitar. Harmonics particularly, despite their strength in Pete Wilson's hands, would be swallowed up by any coincident ensemble pitch, hence my placement of harmonics in rhythmic isolation (at bars 92, 360, 407).

The collaborative process with Pete was very successful, and he congratulated me on it. We did not consult much before writing, as Riley had done, partly because I knew the instrument well. Subsequently, however, we communicated greatly, including rehearsing the work together, hearing the exact technological 'patches' over a MIDI ensemble track, and discussing inflection, improvisation, notation and part preparation: all these were highly productive, necessary processes that efficiently and precisely resolved the ambiguities of the score.

A contributive factor in Pete's performance being stylishly inflected is that the pseudo-minimalist 24-chord sections were familiar to him stylistically, their *moto perpetuo* being also groove-like, familiar to most bassists. The open solo section was designed to facilitate virtuosity, allowing the soloist to show dexterity in their own way. Pete, unusually, works 'retentively' from score, and so the piece's more intricately instructed material suited him better.

After the impractical difficulties of the *Sequenza*, I accurately judged levels of virtuosity in the prescribed material here. Generally, the piece showcases the instrument expressively rather than dextrously. However, at the passage starting at bar 210 is a well-judged virtuoso passage. It works because it is relatively short, surrounded by easy, less dense material. Its difficulty is substantially more modest than that of the *Sequenza*. The more transparent notation better suits bass culture, and is more practical given rehearsal constraints. Seeming virtuosity is achieved through an expressively wide pitch range, and quick changes of timbre and articulation, easily achieved with a minimum of left- or right-hand travel; for example in the dictated solo passage at 265 with its tight phrasing and, exaggerated pitch range.

In recognizing what can be achieved with the minimum of hand travel, I identified a critical factor in good bass guitar writing. To illustrate this, picture a barre at fret IV. Within the four-fret fingering 'box' there is a pitch range of a diminished 12th (G#0-D2) that can be comfortably negotiated in steps or skips. Add to this the harmonic nodes within the box, and the range widens to include E2, G#2, A2, C#2, D3, F#3, G3 and B3. The harmonics also offer alternate pitches on B1, E2, A2, D2, as do open strings at A0, D1 and G1, which can be instantly accessed through left-hand pull-offs. Thus, with no left hand travel a wide range of pitches and timbres can be achieved (fig.11):

Easily negotiable pitches from a fret IV 'box'

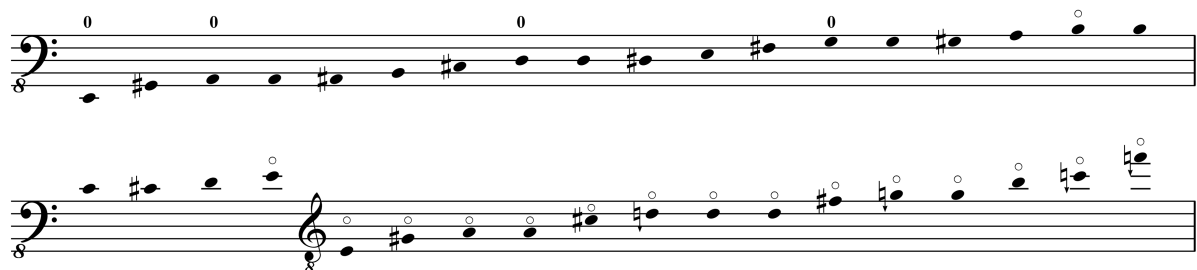


fig. 11

Add to this right-hand techniques – the contrast offered by *p i m a c*, *sul pont*, hammer-ons, artificial harmonics – and subtle articulation/inflection through combinations of right and left hand, and the sounding possibilities at any one position are impressively varied. These many sounds are all fluently playable as part of a phrase or gesture, or with the minimum of preparation time.

Music technology is simply and effectively controlled throughout the piece. The few required patches, pre-programmed using a stand-alone multi-FX box, were triggered in live performance via foot switches. Described on the score by simple instruction and qualifying 'mood word', relatively standard effects are used: 8vb pitch shift, delay, distortion and reverb. Pete controlled EQ via his pick-up tone control pots. My conservative patch choices were easy for Pete to understand. The technological aspect of the instrument is most startling where the bass overlays itself at bar 264 via the loop pedal.

Pete's bass sound was indeed 'as much like itself as possible', as previously discussed. Using a flat EQ amp, and coated, wound strings, his bass sounded pure and true.³ His superlative harmonics were a seamless continuation of his range, achieved through excellent technique and a hi-mid EQ pot on his bridge pick-up, which he boosted for any passage involving harmonics.⁴

In conclusion, *I Like It When The Bass Comes In* succeeds in engaging the bass guitar in my unique compositional voice, playing varied material and differing roles in orchestration. In a productive collaboration with an established bassist, my research aims have thus been shown to be both relevant and practical.

³ However, coated wound strings made the scratch at bar 34 impossible.

⁴ Some bass models, such as the Fender Jazz Bass American Deluxe 2010-11, have considerable EQ control on the instrument, with pick-up pan pots, active/passive switches and multi-band EQ for each pick-up (fig.12 overleaf).

Regarding the poor performance, there seems to be a problem generally in contemporary music with the extreme brevity of classical rehearsal schedules, compounded by the inefficient channelling of communication through the conductor. I found little creative space in the short rehearsals, in complete opposition to vernacular rehearsal processes where composers usually perform and drive rehearsals.⁵ Subsequently, I became motivated to extend my role as composer – organiser of sound – to a more hands-on rehearsal facilitator.

⁵ It is noteworthy that I was asked, ‘Are you interrupting again?’

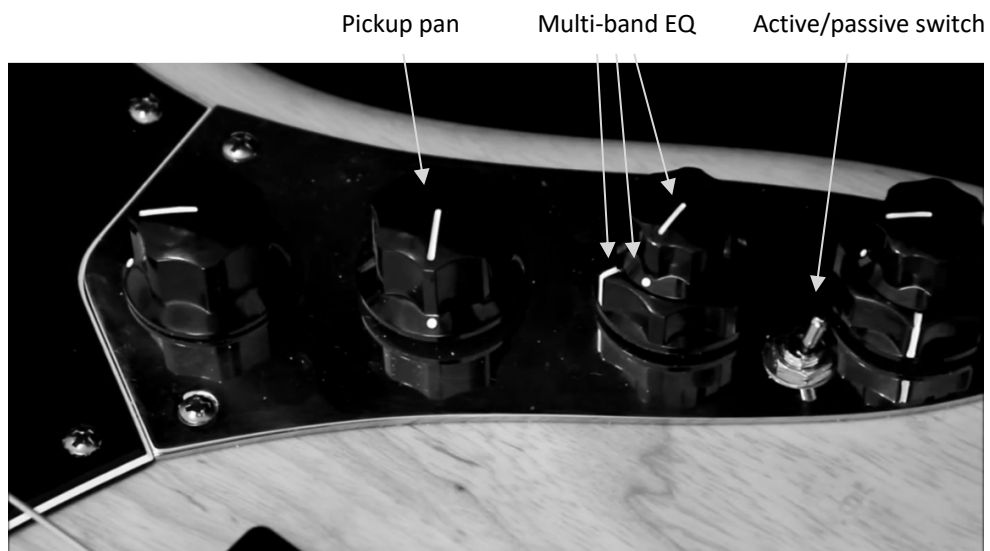


fig.12: Control pots on Fender Jazz Bass American Deluxe 2010-11

A Few Thoughts on Creation

A Few Thoughts On Creation (2009-11)

for 2 sopranos, rapper/baritone, narrator/baritone, piano, 3 bass guitars

Sir Rudenezz – rapper/baritone

Sid Peacock – narrator/baritone

Rachel Nicholas, Stefania Secci – sopranos

Melissa Morris – piano

Fred T. Baker – bass guitar

Ben Markland – bass guitar

Sebastiano Dessanay – bass guitar

Matthew O'Malley – live sound engineer

Directed by Simon Lesley

Recital Hall, Birmingham Conservatoire, 9th May 2011

25'35

A Few Thoughts On Creation is an innovative piece, its polystylism and unusual orchestration requiring unfamiliar performance practice. Heavily employing music technology, the piece posed many questions of me as composer and facilitator, and also of each performer. By orchestrating for three bass guitars, I aimed to explore the true 'voice' of the bass: its vernacular vitality, unpredictability, and relationship with music technology. In addition, by returning to vernacular forms, I hoped to find a mature compositional voice, confident of the balance of 'art' with 'pop', and of composer diktat with individual players' propensities. I approached the work as though it were my *Songs In the Key of Life*: the 'creation' of the title is meant simultaneously in its religious and compositional meanings. All of the vocal texts are self-composed. The programme note in fig.13 overleaf outlines the ambitious subject matter.

Through the work's marked theatricality, I began to develop a notion about efficient artistic writing for bass guitar, which I labelled 'simple fundamental theatre', based on its extreme range, volume and lively inflection.¹ My three basses would magnify these characteristics, in a kind of 'theatre of multiplication'. I also chose performers experienced in vernacular musics,

¹ Not dissimilar to David Bedford's usage in *Star's End*.

and could compose by combining storytelling, rap, comedy, sound collage, phonetics, languages, grooves, folklore and meditation.

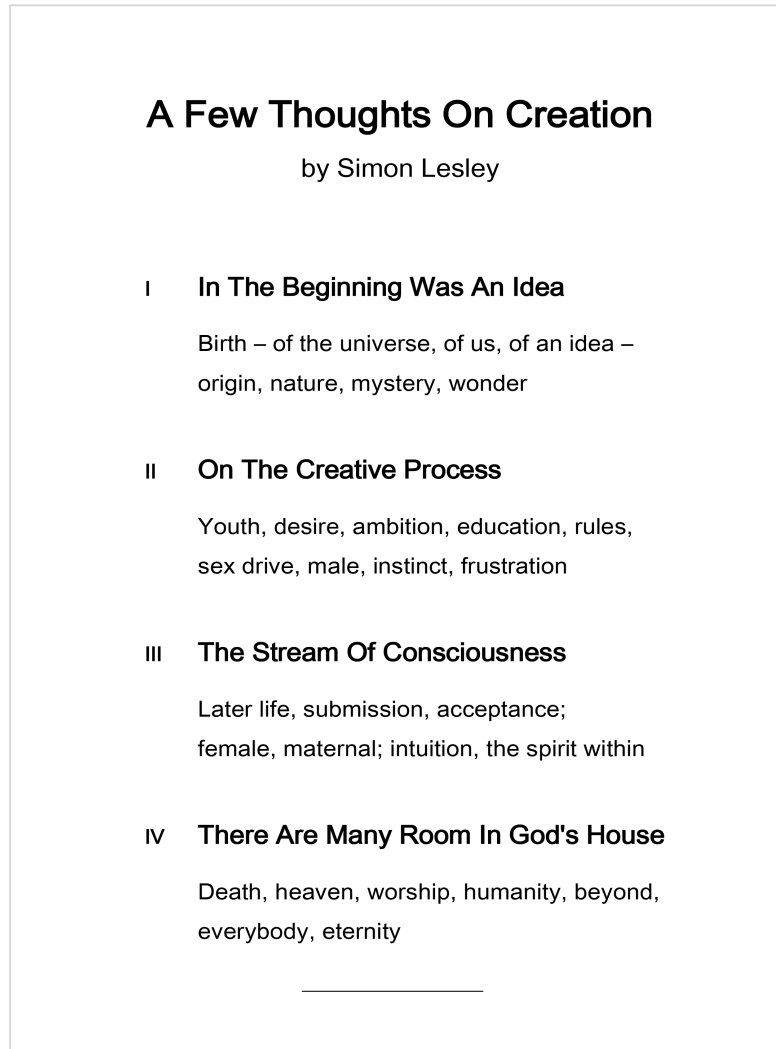


Fig.13: Programme note

The creative process in bringing the piece together was very consultative, in order to involve the vernacularity of each performer. I workshopped nascent ideas, liaised on practicalities and favoured styles, and co-designed technological patches with each bassist and sound engineer. The piece's theatricality required a confidence-building, person-oriented rehearsal style: a series of self-led sectional and full rehearsals proved highly productive. Thus *A Few Thoughts On*

Creation is written for particular performers, more than any other piece in the portfolio.²

Traditional score interpretation could not have achieved the idiosyncrasies and stylistic nuances of the composition, with its open scoring and ‘raw’ aesthetic.

The piece is very contemporary in its use of music technology: working with Logic Mainstage to design distinct bass sounds and subsonic drones, it utilizes the latest computational power and detailed sound control. Having relegated technology in earlier works, I embraced amplification and processing as critical aspects of the contemporary instrument. It is doubtful that details of EQ, spatial position, timbre and reverb come across on the recording (the subsonic drone was at 30Hz, for example, being beyond the capabilities of most microphones and speakers) but technological balance was frequently achieved.

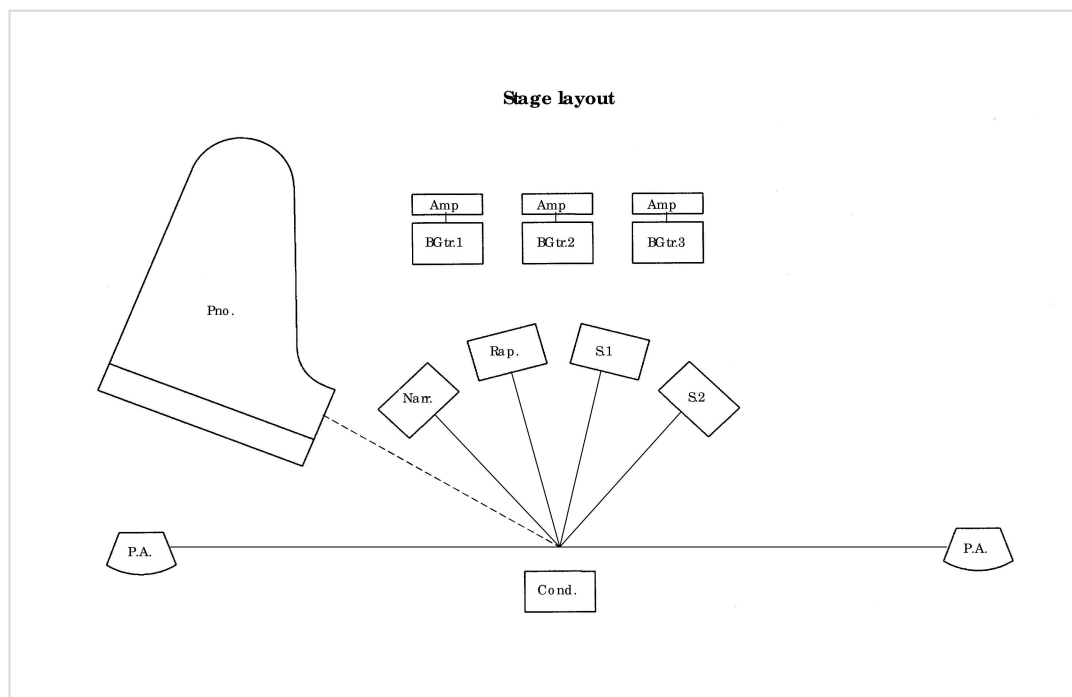


Fig.14

² Sid, I knew to be a good storyteller with a penchant for throat-singing; Rudy, a rapper, singer and theatrical performer; Fred, used to a range of vernacular styles, with a psychedelic sound module and an ability to melodize artificial harmonics; and Ben, contemporary music aware, familiar also to grooves and improvisation.

As the demo tracks 11-13 attest, this ensemble can be balanced through carefully sound-designed separation. Accordingly, in spatially designing the live soundscape, the three basses were ‘panned’ across the back of the stage with stand-alone amps, while the vocalists were routed forwards through a digital desk and flown PA (fig.14). The subsonic drone was routed through sub-woofers underneath the audience. In movement 4 the vocalists step offstage, without microphones. Separation was also achieved from the instruments themselves, with differing pick-ups, amplifiers, and string choice. Basses 1 and 2 largely adopted the lighter, classical sound, leaving only 3rd bass with familiar insistent lo-mid. Each bass and vocalist was treated with detailed dynamic and EQ profiles: one had specific EQ ‘spikes’ for a passage involving fundamentals and harmonics; other textures involved bit crushers, ring modulators, compressors, reverbs, pitch shifters, choruses and delays. Differing articulation helped, too, for example at D in the third movement (1st bass is legato, 2nd has strum-and-tap, while 3rd has détaché plods); and also at G, where solo rest strokes contrast with gentle accompanimental *p i m a* free strokes.

Traditional separation of pitch and rhythm were also applied, as at bar 66 of movement 3, where the 3rd bass is in lo-mid range, the 2nd bass in pinched high fundamentals, and the 1st bass high in the harmonics, all rhythmically separated. Movement 2 has a similar spread. Contrastingly, in the first movement ‘theatre of multiplication’ collages, the basses are in coincident ranges, often in the central lo-mid.

I started to make conclusions about the bass’s ‘singing mid-range’: I used it when I wanted the bass to come forward, to be sustained and confident, for example in lower phrases of the fourth movement solo, or at bar 210 in the third movement. Meanwhile, to subsume the bass into the orchestration, or lighten tone, or explore ‘otherness’, I utilized the extremes of the fretboard and/or strings. The singing mid-range was a central instrumental characteristic, enhanced by the default lo-mid focus of its associated technology.

That such separation is possible is evidence that the bass can be employed artistically and with subtlety. Furthermore, it demonstrates that a ‘standard’ lo-mid bass guitar sound should not be assumed, a fact of which all composers and ensemble directors should be aware.

There were small problems with ensemble balance, however. For example, in movement 4, there were difficulties in relating the ensemble to the offstage vocalists (who were supposed to be distant dynamically). The sound engineer had no control of the stand-alone basses. So, whilst spatial differentiation was pleasurable, it did not perhaps achieve the same balance as if all instruments had been routed and mixed through the front-of-house desk.

Here follows a brief description of the individual movements, followed by conclusions about the whole piece:

Movement 1 starts with a ‘big bang’, and subsequently pontificates about the origins of life/creativity. The open, textural score creates a collage of colliding sounds that evoke a nebulous, evolving, early universe. Its improvisational elements – often comic, wild gestures – are approachable by all performers. It is notable how Rudy the rapper (not a notation reader) engaged with contemporary music: a specially colour-coded graphic score enabled him to perform his part with aplomb (see fig.15 overleaf). The tutti bass orchestration is successfully theatrical, but perhaps requires some orchestrational tweaks: the poor sustain of the vernacular vocalists’ long notes exposes the dull quickly-dying envelope of the bass guitar notes.³ I wonder, too, whether the collage is too complex for the listener to follow the narration (see text at fig.16 overleaf). The movement’s meter-less structure proved challenging to direct and pace, but would doubtless settle with further performances.

³ I helped vocalists to keep in tune during long notes by preparing guide audio mp3s, which they each had in earphones on stage. If vocal sustain proves a permanent problem, I may choose to double some bass material with piano, for example at the first 2/4 bars, and at A; or perhaps design longer delays, reverbs or granulations.

zZee
 SID
 at the beginning.
 Piano

Lo Go → ooh → wwww
 SID
 in essence freely swimming
 Piano

ah ih ee oh
 oh oh

shhh tss

pu ga Cza Zee
 SID
 of one thing we can be assured
 Piano

Logos

roh illani
 SID
 Our very lives were given
 Piano

A majestic gas is filling

Fig.15: excerpt from graphic score part prepared for Rudy the rapper

I In The Beginning Was An Idea

In the beginning was the word
The finest thing you ever heard
An idea
An essence freely swimming
That started here, at the beginning

Of one thing we can be assured
Creation of our souls occurred
in here
Our very lives were given
A mystery yet so fulfilling

(Throat singing)

We are not certain
Each one respond with faith
Or fear
To the essence, word, idea

Fig.16

II Thoughts on the Creative Process

Its hidden depths requiring further inspection

Word!

I was schooled in accusative and dative
But I didn't do drugs, so I wasn't that creative
All my lyrics were logically formulated
I had to find my muse, schmooze before I finally made it
Now melody and beautiful harmonies abound
Astound
They're the sound of my energy
Cleverly causing the audience to feel elated
I'll play grammatical games with you 'til you're sated

My family ensured I was taught rather formally
About the Zen beauty of mathematical formulae
Rules – the regulations were strict
Not for me the liberty of using my instinct
All my concerns were with grammar and syntax
Which lacks impulse or impact
Will I ever calculate the artistic cost to me of years
of learning lavished on the genitive apostrophe?!

I wanna tell you – it got to me
I had to break free from repressive restriction
Put some meat in my meter & some dance in my diction
Flow, a stream of consciousness, a fantastic fiction
Joy, imagined pleasures in peculiar depiction

You wanna play?

Subjective, objective!
Adjectival adjuncts that are almost suggestive
A mesmerizing complexity of varying scansion
A web of words driving you to distraction

Subjunctive, conjunctive!
A rhyme and reason being strangely seductive
A strophic storyline that vies for your attention

Did I mention declension?!
Get it wrong and you'll end up in detention
You'll learn to love the discipline of painful
correction
Kneeling on the naughty step of sexual tension

Narcotic, despotic!
I'm finding this somehow erotic
Cleverly my musical stanzas have stimulated
Eased the pain, anxiety, the former me, frustrated
I'm not some lifeless member of the jaded
I'm standing proud with something I created

Yes I was schooled in accusative and dative
Pythagoras, Fibonacci and everything related
Just think of the great masters I imitated
..My verses aren't just stuff I idly masturbated

Leathery, feathery!
I think my mind's getting ahead of me
I'm in a state of arousal, incredibly
Cleverly my musical stanzas have stimulated
Eased the pain, anxiety, the former me, frustrated
Debated,
Upon my being pontificated,
Sometimes amused and perhaps even titillated
My latest oeuvre was keenly anticipated
A heady mixture of latent and syncopated
The final product of how I was educated
Here ends the stuff that I created

Erection, Vivisection!

Fig.17

III The Stream Of Consciousness

Dans, dedans, Di-eu; aah le vrai movement

Dans, dedans, rieur; le fleuve vivant

Lent, le lent li-eu, en moi la vie mouvante

La lu la lu la, le chant du cher poupon

La lu la lu, lamenté, les mourants

La lu la lu la, resonné, le flot courant

Une joie incroyable

Une âme, une âme noyant, noyant

Ondoyant, la motion (ondoyons l'émotion)

Acceuillons le flux et reflux

La da da etc.

Ooh

Une joie incroyable

Une âme, une âme noyant, noyant

Ondoyant, la motion (ondoyons l'émotion)

Acceuillons le flux et reflux

Lu la lu la lu, une berceuse maternelle

Ma-man, ma-man ma, mon être actuelle

Lu la lu la lu, l'essence naturelle

Aah

La vie mouvante

Movement 2's youthful contemporaneity is evident in its rap, groove built on a two-bar 'loop', and multicultural undertones (Zulu-esque shouts and manual percussion). The text (fig.17) deals with the collision of vernacular culture with establishment schooling, and its impact on creativity. Rudy was successfully accommodated once more, working from a lyric sheet and, aurally, from demo track 11: the strophic structure of the second and third movements was designed to accommodate aural learning and encourage vernacularity. However, the vocalists struggled to tune the dissonant chords following C, and with the finer points of manual percussion. Also, the conductor's chicken shake part, intended to provide a clearly heard rigid pulse to suit Rudy's performance practice, proved tricky and counterproductive: a simple finger click was substituted. The issue of whether the listener can follow the text applies here, too, despite a more relegated, repetitious accompaniment.

In movement 3, dorian mode is used to evoke a sense of folklore – a mature sense of a 'collective unconscious' – magnified by the gentleness of French phonemes, female vocal duet, rain sticks and warming reverb. Being in E dorian, all open bass strings and natural harmonics are available. The fragmentary text (fig.18) is written mostly for its sound qualities, although it hints at acceptance of the life cycle, and at the gifts of maternity. The composition is clear, concise and carefully judged in pace and orchestration. The easy modal harmony and slow tempo facilitated expressive performances throughout the ensemble.

Movement 4 is perhaps the boldest experiment. Its vast periods of free meter and open score are intended to represent worshipful chanting by people of all faiths simultaneously.⁴ This certainly has theatrical impact, but makes the composition musically and structurally very risky. The prescribed material for bass should provide structure and focus, with the vocal collage merely a background texture. The throat-singing and subsonic drone are designed to heighten drama, and

⁴ Modelled on the Subud *latihan*. See www.subud.com [accessed 24/2/12].

cover any silences between vocal or bass phrases. Anticipating reticence in performing the unusual vocals, I recorded myself wailing and chanting wildly for long periods, thus providing each vocalist with guide audio to copy from earphones on stage.⁵ Other aspects of the movement are successful, too: the separation by EQ of the subsonic drone from the bass guitars; and the well judged virtuosity and melodic articulation of the solo bass, its sitar-like gestures and inflections aided, once again, by aural learning from demo track 13. My ‘simple theatre’ is also successfully apparent in the tutti bass power chords and cadences. The piece moved one audience member to tears, who adopted the lotus position in a seeming moment of spiritual awareness. The physiological impact of bass range should clearly not be underestimated.

Regarding the ‘true voice’ of the bass, it is notable, in this vernacular-leaning work, that common bass guitar keys of E and A are used throughout, keys I avoided when constructing ‘unfamiliar’ material in *I Like It When The Bass Comes In*. A fundamental use of E- and A-strings – common in fusion riffs – may be ‘natural’ and ergonomic, but need not be used formulaically: choosing a fretted pitch above them as a key centre can create bitonality, false-bass or other dissonance.

It is telling that the vernacular forms of the second and third movements engendered the most fluent improvisation: see Sebastiano’s solo at G in third movement, and Fred’s jazz coda at its end. Their comfort in articulating funk rhythms and inflecting modal ballads is surely symptomatic of the bass guitar’s heritage. More revealing about their ability to travel culturally, to improvise differently, to alter the complexities of inflection, would be further work on the art soundscapes of the first movement.

⁵ In reality, five vocalists were probably not enough to fully achieve the desired effect: perhaps an additional audio track through the PA is required.

One of the problems of the whole research is that unfamiliar practices result in tentative performances. However, confidence and commitment was engendered here by writing to particular players' strengths; my judgement of prescribed polystylistic material also improved. Nevertheless, the sopranos had demanding parts, with Sequenza-like twittering, close-mic techniques, Zulu-esque shouts, dissonant pitching, manual percussion, luscious French pronunciation and expansive phrases, and pseudo-religious chanting to contend with. Players can most effectively bring to a piece only what they truly know, especially through their listening experience.

It is common in rehearsal processes and performance that articulation, dynamics and inflection become secondary to first correcting pitch and rhythm. This may account for some of the uniformity of bass sound on the recording: the separation of basses is not always clear. In part, this is due to performances lacking the required timbral and gestural exaggeration, discussed previously.

Because the structure is entirely programmatic, it risks being musically skewed. Here the two slow movements about later life that finish the work perhaps lack a conventional 'finale', although the epic scale of the last movement has an element of finality: perhaps, at E in the final movement, I could have constructed a more prescribed climax in the voices.

In conclusion, I feel that the conception and execution of *A Few Thoughts On Creation* demonstrates an excellent understanding of the technicalities, vernacular vibrancy, theatricality and artistic scope of the bass guitar. It demands 21st-century, culturally diverse musicality and technological practices, which could not have been executed with classical conductor-led rehearsals alone.⁶

⁶ Any imperfections in the final result must be offset by an acknowledgement of how demanding the piece is in its unusual performance practice requirements.

Artistically, I feel the piece is original and challenging. Yet it owes much of its theatricality to a pop performance aesthetic. At the start of this research, it appeared that cultural baggage weighed heavily on the bass guitar, with widespread presumptions about genericism. But the use of three basses in *A Few Thoughts On Creation* is far from routine, and shows that vernacular forms can be used creatively and artistically.

Through this work, it seems more than ever inappropriate to think of a score as a completed composition, suitable for repeated interpretations. Rather, it is individual projects worked through with specific musicians, such as this one, that can truly innovate, rendering socio-contextual barriers redundant through their interdisciplinarity.

The Power of Quiet

The Power of Quiet for bass guitar and wind ensemble (2011)

THUMB

Directed by Dan Watson

Ben Markland – bass guitar

Recital Hall, Birmingham Conservatoire, 23rd May 2011

12'00

After the complexities of *A Few Thoughts on Creation*, the principal ambitions of *The Power of Quiet* are ones of simplicity. Often the best compositions are concise in concept, and result in confident performances. Here, a sustained background collage, prescribed in particularly bold block textures and stark open time, accompanies a freely improvising solo bass. By being so open, I hoped to examine what ‘the performer’ bassist would bring to the composition, as per my research aim. I hoped to reveal the true nature of current bassism, by examining how a bassist engages in art music when permitted to do so on his own terms. Ben was the perfect player for this study, having worked variously with Birmingham Contemporary Music Group, Peter Wiegold’s *notes inégales*, and Birmingham Jazz.

The listener experiences the piece as an ambient soundscape, like a gallery installation. The solo bass should be heard as foreground despite its low pitch range, and should carry the piece. To magnify the piece’s experiential impact, all instruments are amplified, signal-processed, and panned kaleidoscopically around the auditorium (automated using Birmingham Conservatoire’s Integra Live music software).¹ I had recently heard Icebreaker performing the ambient collages of Brian Eno’s *Apollo* and wanted to build on the technological experiences of *A Few Thoughts On Creation*.

¹ My thanks go to Tychonas Michailidis for his work on this.

Ben's experience in diverse styles of improvisation allowed him to make critical judgements of *The Power of Quiet*. Good improvisation, he said, requires space to breathe, and evolves from settled environments: hence the simple instructions and free time of the opening are successful, as is the extended modal passage at rehearsal numbers 7-13. However, at 18, there is perhaps too much information in a short period. A problem when improvising in art music, he noted, is being required to improvise in a certain way, at a certain point, often with no 'experiential preparation' time to breed creativity. (This is a criticism that could be applied to the 1st movement of *A Few Thoughts On Creation*, also.)

The key analysis of the work's place in the research and learning process must be in whether my scant instructions engendered an improvisation that is purposefully tailored to the specifics of the composition: whether the given material is concise, stylistically original and clear. In combination with short but detailed example material, the instruction at number 3 to improvise 'like a sequenza' was successful: Ben improvised with according 'frequency varied' gestures, and structured the whole passage appropriately and musically. At number 18, his improvisation changed, according to the additionally prescribed material available in his printed part (see fig.19 overleaf). From number 9 onwards, my instructions are perhaps less successful, having insufficient clarity. Likewise, the thematic contrapuntal material surrounding the solo – which Ben would doubtless want to have responded to (tuba at number 7, flute/clarinet at number 9) – is somewhat insipid in its step-wise pitches and bland rhythms, being partly intended to blend with the background texture. Ben still managed to develop a well-paced solo: through consultation, I knew him to be skilled in developmental improvisation. But the thematic contrapuntal material, together with the familiar annotation of chord symbols, had the unwanted effect of contributing to a generic 'noodling' quality in Ben's improvisation, which was too received to be said to be truly tailored to a specific composition, and betrays ongoing jazz-like propensities.

18

One note games with bend e.g. irregular rasgueado bend

2 notes and added harmonic with bend, gliss and pull-offs e.g. wild vib. +

p molto vib. *mp*

in tune → de-tune

OR

p *mp*

I or IV bend off fingerboard OR

OR

VII wild

mp

more pitched material/more volume

IX hammer-ons

slap

mp *fff*

OR

mp *ff*

OR

mf

longer polyphonic dissonant phrase

f

The image shows a musical score for bass guitar, divided into two main sections. The first section, labeled '18', contains several examples of techniques: 'irregular rasgueado' and 'bend' in the first staff; 'wild vib. +' in the second staff; 'in tune' and 'de-tune' in the third staff; 'I or IV bend off fingerboard' and 'OR' in the fourth staff; and 'VII wild' in the fifth staff. Dynamics include *p*, *mp*, and *fff*. The second section, separated by a double bar line, is titled 'more pitched material/more volume' and 'longer polyphonic dissonant phrase'. It includes 'IX hammer-ons', 'slap', and 'wild' techniques. Dynamics include *mp*, *ff*, *mf*, and *f*. The score uses standard musical notation with treble and bass clefs, and includes various ornaments and performance instructions.

Fig.19: Appendix to printed bass part, with suggested ideas for improvisation

There were several aspects of the final performance that were disappointing. For the ensemble, the indeterminate nature of the collage material discouraged player engagement: magnified by a slow rhythmlessness, performers felt unsure of where the piece is going because there are few points of reference or signposts. The whole-notes of the wind parts were intended to be freely interpreted (see instructions at each rehearsal number), but players did not feel able to express themselves in this way.

The ambient soundscape was unsuccessful in its essential balance and sustain. Partly this was due to imperfections in performance, such as tuning and tone support, but partly it was due to the composition: the 'kaleidoscopic' voicing of chords from number 7 onwards, for example, made the soprano sax's awkward lowest pitch coincide with the subtlety of a flute middle D. Both are expected to play pianissimo, and this exacerbated the inherent difficulties of balancing woodwinds, saxes and brass, with their different timbres and methods of sound production.

Further issues in performance included gaps in the sustain of the block chord orchestration as players snatched time to breathe. The answering ideas in synth, piano and electric guitar (at number 8, for example) were designed to cover gaps in the winds by conversation with the lead phrases. But few of them bridged barlines: most are merely rhythmically latent within bars, exposing the unwanted breaths at barlines. These parts were poorly balanced in the performance and were missed. Their imbalance also rendered the bass somewhat isolated timbrally. In addition, the automated panning served only to magnify the voicing imbalances: even given an acoustic balance on stage, to any one audience member at one time the panning broadcast one note more than another. In the small auditorium, too, both the acoustic attack and a slightly latent, signal-processed attack gave an undesired phase effect.

The soft 'wash' of the background material broadly succeeded in allowing the bass to be heard as foreground. But perhaps it needed to be emptier still: it remains thick in texture and spans a large pitch range. It was particularly difficult after high pitches, for the audience to re-adjust auditory focus back to low: for example, on the tuba and bass guitar after the high clarinet at number 8. It must again be noted that, on bass guitar, sequenza-like timbral subtleties are lost in ensemble orchestration.

Solutions to these problems might be through inverted wind voicings, orchestrating instruments in a safer mid-range; breathing could be staggered and/or covered by overlapping dynamic hairpins; panning could be made more static; a more detailed sound-check would help, and more rehearsal time in tuning chords and motivating players. It would be an improvement to play the piccolo part on flute, so piercing is the piccolo in this quiet context. Also, at number 11, the intended sense of moving forward requires more than just shorter time signatures: perhaps the winds could answer each other at the half bar, or have more driving rhythmic material.

It is important to note that, for the most part, these are problems of rehearsal and performance practice, not purely of composition, emphasizing that bringing a composition to fruition requires much more than the writing of a score. The need for a creative rehearsal technique that is centred on the specific players and arena in which it is performed is especially strong in a piece such as *The Power of Quiet*, with its open scoring and considerable use of music technology. Furthermore, my research question in this work was focussed clearly on the solo bassist's response to open instructions, rather than on the collage material.

In summation, a future performance of *The Power of Quiet* would require better care for breathing, tuning, balance, sustain/shape of notes, a tightening of theme and better contrapuntal interplay. However, the concept of an ambient kaleidoscope behind bass guitar remains a good one, and there are positives to be drawn from the piece: a productive consultation process resulting in good writing for bass, with prescribed material that both suits the instrument and affects the qualities of the solo improvisation; and a technological set-up through Logic Mainstage that ably varied the bass guitar timbre. For these reasons, I felt that my understanding of both the bass and bassist was secure, and was confident of bringing the research to fruition in the final work.

As to whether *The Power of Quiet* reveals the state of current bassism, it would be necessary to hear further performances of it by differing bassists. But, because Ben is an experienced bassist in jazz, pop and art music, this performance must be said to be revealing to an extent: the variety of performance practices that Ben was able to execute is indicative of the wide sphere of reference a bassist may reasonably be expected to draw upon. *The Power of Quiet* can be said to be effective and practical in the current context, and in its balance of art performance practice with vernacular.

Release The Penguins!

Release The Penguins! for clarinet, trombone, bass guitar and vibraphone/percussion (2011)

Jack McNeill – clarinet

Simon Lesley – bass guitar, trombone and bicycle

Studio recording with programmed vibraphone/percussion, January 2012

16'42

In this final piece, I hoped to demonstrate the results of all my research: by efficiently working with the bass guitar's fundamental properties, I intended material that is artistically unique, concise in concept and practical to perform. I also intended a kind of bass holism, by melding aspects of its vernacular heritage with those of art composition for a quartet.

Release the Penguins! is a whimsical, Dadaistic curio, and accordingly socio-culturally ambiguous. Each movement is named according to musical instructions in John Stump's *Faerie's Aire and Death Waltz* (fig.20 overleaf), an absurdist score described as 'an unplayable and satirical parody', an 'erudite, rigorous act of nonsense' (Stump 2010: online). Stump's anti-establishment stance appealed to me, somehow reflecting the original motivations for my research. The imperatives in my titles – *Insert Peanuts, Add Bicycle, Cool Timpani With Small Fan, Rotate Embouchures, Continue Swimming Motion* and *Release the Penguins* – create a recipe-like narrative that comes to fruition in the final movement.

The work's chamber instrumentation allows the bass to undertake fluctuating ensemble roles, which, in freely varying degrees, explore exaggerated pitch range, blend/prominence, soloistic flourishes and classical-guitar-like polyphony. The lack of conducted direction and the difficulties of classical chamber ensemble performance are challenging for the player. Whilst there is little improvisation in the work, there is ample space for vernacular expression: for example, in the rhythmic gestures of approximate pitch in movement 2; in the expressive

freedom of movement 3; and in many aspects of inflection, articulation, vibratos, bends, glisses, falls, trills, strums and arpeggiations. There is further ‘simple fundamental theatre’ also: for example in the false-bass interruptions of the first movement, the glissandi of the fourth, the opening strums of the second, and the final isolated flourish of the third. The piece is technologically contemporary in its bass production, audio and video tracks.

The quartet’s instrumentation was chosen for its timbral complementarity. Each instrument has a mellow warmth (bass guitar, trombone, clarinet and vibraphone, together spanning a wide pitch range), a ringing quality (the bell-like quality of the vibraphone particularly serving to cement the bass guitar into the ensemble), and a brighter, more pinched extreme (in the higher ranges of bass and clarinet, in greater volume on trombone, in the brittle high notes of unsustained vibraphone). Each has comedic potential, too, and the ensemble recalls perhaps a Carl Stalling cartoon score. The instrumentation also features ‘extraneous’ percussion: peanuts, glasses, bicycle, wind chimes, desk fan, water, plus toy and cartoon penguins. Thus the stage is intriguingly littered with assorted bric-a-brac. A projected photo of a cartoon penguin forms a backdrop, becoming video-animated in the last movement.

I chose to perform the bass part myself: having become a relatively proficient player in the process of undertaking this research, I considered that my own performance might inherently have a role in demonstrating its specifics. However, that the recording was multi-tracked in a studio meant I was unable to assess the ensemble difficulties of a quartet.

Insert Peanuts has the air of a circus mime: the trombonist flicks peanuts with comedy timing into a pint glass, interspersed with periods of sitting, pondering the meaning of life. The wistful modality of the clarinet and vibraphone material is interrupted by confident dissonance in the mid range of the bass, and trombone pedal notes. The bass part is efficient and dramatic through

well-paced, simple, focussed material. The rhythmic vibrato gesture of the opening is a novel use of the instrument's attributes; the chordal interruptions create a striking false-bass underneath harmonic diads.

Notably the bass serves as a harmonic instrument, a key attribute that I have occasionally neglected in the pursuit of simplicity (bass performance practice heritage is largely monophonic). Polyphonic material is widely employed on bass in this piece: it is particularly effective in a chamber ensemble, and further explores the guitar-like complexities being increasingly employed in contemporary bass practice (see Maier, Di Piazza et al).

The moto perpetuo of *Add Bicycle* emerges from mechanised polyrhythmic hemiolas and paradiddles. The percussive use of the bicycle provides theatricality: bell, frame, spokes, pump and pedal motion are all employed. I was inspired by the bicycle's sardonic musical history – in Frank Zappa's premiere television broadcast (1963), The Mixtures' *Pushbike Song* (1970) and Django Bates' *Pedal Tones* (2008).

My bass part is accordingly full of colloquialisms, employed aperiodically and in unusual juxtapositions: see the rock-like strumming of the opening; the glissando comedy of the melody at B; the free 'tea-chest' bass figures at bars 37 and 85. I felt that I had hitherto not fully utilized the bass's lively, detailed inflection, heard most obviously in the famous groove bass lines. So, in the passages at bars 15 and 73, I employed Wooten-like right-hand techniques: the alternating *i* and *m*, the double thumb attack, together with two- and three-note doo-dap slurs at 41.

These familiar vernacular bass functions rely on rhythmic impetus and stylish articulation, making best use of the instrument's quickly-decaying, punctuating notes. In the portfolio as a whole, however, I have often composed more wafting, tempo-free music, perhaps equating it with my concerns for 'art'. By writing more open, flowing music I was, though, to an extent,

fighting both the natural properties of the instrument and its rhythmic-percussive heritage. In *Add Bicycle* then, there are far more short notes, articulated in inventive sequences at speed.

More uncharacteristically, the bass functions as a high melodic instrument at B, accompanied by low trombone. It skips widely from fretted to open strings: the shock notes beginning at bar 51 are particularly effective, and by 61, the superior sustain of the low open strings contrasts with pinched, high fretted diads.

Contrastingly, In *Cool Timpani With Small Fan*, a rhythmless ambience is created with the gentle whirring of an oscillating desk fan, interspersed with tinkling wind chimes. A collage of trills and vibrato wobbles (the vibrato bass guitar chords are particularly effective) dissipates into fractured gestures on vibraphone and clarinet, covered only by the constant noise of the fan. A slow melodic motif commences at C before another collage at F, dissipating again into isolated gestures to finish. Over the course of the movement, the instrument's full pitch range is very effectively employed offering dramatic and emotive contrasts. The lack of pace is soothing, but remains rather absurd and dreamlike.

The focus of the bass guitar writing here is on freedom of inflection, facilitated by loosely worded instructions ('occasional rasgueados', 'characterful gestures/timbres ad lib. '), sparing slurs and glissando lines. Occasionally, a more unusual articulation is prescribed, such as the tap-then-arpeggiate attack at bar 47. In this way, I engender a characterful and unique performance, and deploy some of the subtleties of the *Sequenza* in the clarity of a chamber music ensemble.

To combat the issue of poor sustain in the slow motif at C, the bass guitar melody is doubled by trombone. As the bass notes decay, they segue into delay-like material (tapping and the lighter tone of *sul pont*) that matches the diminuendo of the trombone. Sustain is also achieved by trilling and vibrato, which force the energy of the string to continue.

The brevity of *Rotate Embouchures* serves as something of a wake-up call, in a return to some rather obvious comedy. (I doubt the listener would expect the highest pitch to come from the bass, pitch-shifted up an octave.) The glissando, I realized, is another excellent characteristic of the familiar bass guitar that I had mistakenly avoided in my desire to be ‘artily’ distinct.¹ Few bass instruments can glissando as freely as the bass guitar: despite its chromatically-graduated fretboard, the bass guitar can glissando with seemingly unbroken pitch, an effect aided by its low range, low string action and pure sine-wave like tone. In combination with wide vibratos, string bends, falls and scoops, detailed inflection by sliding pitch gives the bass much of its playful liveliness.

Continue Swimming Motion begins a structural push to the end: an audio track of water begins, an extract from the final penguin video. The increased tempo and repeating vibraphone pitches recall movement 2. We hear again the pitch oscillation of movement 3, in the sustained vibraphone with motor on, trombone slide vibrato, and the clarinet rotating its bell, all supporting the aquatic theme. The bass guitar has an integrated role in the ensemble writing, whose linear counterpoint recalls classical chamber quartets. The bass is free to inflect in a comedically wobbly way, but with some prescription of gesture and tone through right hand technique. At bar 27 the underwater effect is completed by a ‘tremolo’ chorus effect on the bold bass gesture. Lively vibrato again helps sustain in the sedate rhythms of bars 13 onwards. The harmonics at 12, 14, 18 and 20 are similarly helpful: they act as mental rests, ergonomically freeing up both hands to reposition themselves for the next note, but with no gap in sound.

The concluding movement, *Release the Penguins*, features extraneous noise from all previous movements, and is built around the original audio and dramatic narrative of the cartoon.²

¹ Examples of glissandi and playfulness in art music are many, in fact, and include Bartók’s *Concerto for Orchestra* (in the strings and two harps of the 2nd movement, and the trombones of the 4th movement Shostakovich parody); also the wild swoops of the Ondes Martenot in Messiaen’s *Turangalila Symphony*.

² Pierre Coffin’s *Pings* <http://www.youtube.com/watch?v=JmCz2TTmy8o&feature=related> accessed 24/2/12.

Players respond to visual cues with underscoring gestures or sound effects (bar 15 is particularly literal in accompanying the 'big fish appears' sound). Some bass gestures are as complex as the *Sequenza*, but are made easier by their isolation here; all theatrically utilize the bass's physicality, with a rich complex of glissandos, shorter durations, changes of pitch range within a 'box', pitch bending, varied right-hand articulation and polyphony. The bass part is practical to play and brings the vitality of the vernacular bass to an art-music composition. The deconstructed reggae of bars 21-27 brings the portfolio to an appropriately poly-cultural end.

Conclusion

Summative analysis by aims

I have learned a lot from approaching your music.

(Ben Markland, bassist, BCMG/Birmingham Jazz)

This research has little precedent in terms of repertoire or academic study. Thus, a method of research by composition is particularly appropriate, exploring the bass guitar's potential to expand its creative scope into an area conveniently labelled 'art music'. Because of extant cultural presumptions about the bass guitar, there was perhaps a feeling that the project would have only limited scope. But the opposite is true: the project bridges social boundaries and critically challenges received narratives. In a kind of interdisciplinary exposé, the titular research question raises associated fundamental questions, not least of educational methodology and performance practice. Hence the research takes account of many aspects of music composition and its execution: aural/experiential, theoretical, physical/ergonomic, technological, contextual/historic and creative/experimental.

I cannot claim to have solved all of the issues raised by the project, and my compositions are not always consistent; these are inherent qualities of an expressive art.¹ However, I can claim to have explored in depth all its aims and objectives, with considerable success, and to have developed a detailed awareness about them, thus, making a significant and original contribution to knowledge about the bass guitar in art music, as Ben Markland attests.

Here follows a synopsis of the project, based on its initial aims and objectives, together with an outline of the implications for further research.

¹ Studies of creativity since Nietzsche, Einstein, Jung and Freud frequently suggest that expressive acts are neither logical nor consistent: rather they proffer than 'creative abilities are irrational, intuitive, instinctive, subconscious [or] *a-rational*' (Nakamori & Wierzbicki 2006:1) and that 'in creative endeavour, rewards are [...] unpredictable' (Abra 1988:410).

The Instrument

Because of its principally low range, the bass is usually used monophonically. However it is a harmonic instrument that, with its excellent natural and artificial harmonics, is truly polyphonic over a pitch range that more than spans the grand staff. Most effective and distinctive uses of pitch are through exaggerating its ability to skip wide intervals, easily achieved in any one fretting position, especially with the inclusion of harmonic nodes and pull-offs to open strings. Its extreme clarity and polyphonic ability in low range are also distinctive.

Its physicality, volume, and extreme and easy negotiation of pitch, make the bass guitar particularly effective at bold gestures such as shock notes, swooping glissandos and wide arpeggiation. This has led me towards a concept of ‘simple fundamental theatre’, where bass writing is most dramatic through simply crafted bold gestures.

The complexity of polyphonic material is limited to a point by physical constraints, similar to a classical guitar. For example, consecutive diads or rhythmic counterpoint may be difficult to execute, unless fingering patterns are understood. The use of ringing open strings or harmonics in a passage, or pull-offs or right-hand hammer-ons, may help to facilitate more connected polyphonic material; harmonizing/contrapuntal lines may be better in shorter sections, perhaps punctuating particular moments in a lead line.

As the name of its formative model suggests it is a precision bass. Its secure and instant attack in low range, plus instant decay through stopping strings, is unusual for a bass instrument. Thus it negotiates running passages relatively dextrously (although its lowest minor third is more sluggish); additionally, any individual note can be microtonally accurate in pitch, altered through string bending or vibrato. These things combined make its articulation fiercely precise: every tiny pitch inflection and detail of attack, sustain and release can be ably performed. Principal

reasons for the instrument's success in funk music, these attributes need not be employed generically: players of any culture could imbue their playing with myriad inflections.

The bass guitar tends to have poor sustain, especially at the high end of the fretboard. Although the best models and compression processing alleviate the problem, the wave profile of a typical bass guitar note peaks at the start, quickly decays and is, before long, inaudible.² Consequently, legato phrases are only workable with shorter note values, often with vibrato keeping the string excited. This explains familiar bass usage: percussive, rhythmic and punctuating, or melodically brief in hooks/riffs, most usually in music of rigid, mid and high tempi. The addition of dead string 'thuds' within riffs is very effective, and adds to the bass's vocabulary as a rhythmic instrument.

There is, however, a 'singing mid range' in the middle of the strings where tone can be confident, smooth and warm, suiting the lo-mid focus of most bass equipment. Tone is at its most boomy in the middle, loosest part of the E and A strings; tone at the tighter, extreme ends of the strings is more angular and is achieved in frets I-III and/or by plucking near the bridge. As with all stringed instruments, tonal contrast is also offered in the choice of stopped or open strings, or differing string gauge. Alternate positions are provided by different strings and harmonics. These contrasts are rarely exploited, however, both because of the confidence of the singing mid range, and because of the pick-ups' tendency to compromise tonal difference.

Indeed, it could be argued that chief among the instrument's fundamental properties is that it is electric. This means that sound production decisions are key, and have hitherto constituted the principal mode of tonal control, putting a considerable emphasis on technological equipment. Amplification provides the bass guitar with both the boldness of an electric guitar and, in an exposed setting, the ability to broadcast – closely mic'd – the subtleties of a classical guitar.

² This is especially the case when performed with a rest stroke. Free strokes have less of a peak at the start.

Sound Production

There are many aspects to bass guitar construction and amplification that affect its sound, among them active/passive pickups, bridge/neck pickup selection, EQ tone wheels, flat/wound/coated strings, wood resonance in neck and body, paper/aluminium amplifier cones, and amplifier EQ profile and volume.³ The finer points of instrument set-up should be delegated to the player as they would with any other instrument. Composers may specify the kind of sound they require through broad ‘mood word’ description or, technologically, by example patches.

There is little consensus on a ‘classical bass sound’, due to the fragmented and experimental nature of the instrument in art music, and many aspects of equipment design having been developed around the requirements of commercial music. Furthermore, the promotion of timbre in contemporary music means a composer might desire a range of differing timbres, perhaps an extreme subsonic sound rather than a ‘sweet’ one. Nonetheless, a ‘classical sound’ might be described as smooth, warm, not extreme, with some clarity and no protruding frequencies; the instrument may also ‘sound as much like itself as possible’, implying notions of player-instrument authenticity and the relegation of overtly electrical treatment. To this end, the performances of my portfolio compositions employ amplifiers with flat EQ or ‘acoustic’ amps with downward facing cones: that is, sympathetic amplification of the source instrument.

In the *Sequenza*, I promoted the control of sound at source, by prescribing detailed right hand techniques that affect timbre. Because of the compromising tendency of pickups, and to offset the dominant lo-mid focus of commercial bass technology, I worked with a lighter EQ, allowing more contrast to be heard. Exaggerating contrasts of right-hand technique maximises tonal contrast, most effectively in a complementary inverse relationship of left and right hands: the

³ EQ and volume are sometimes linked: amplifier cones produce more bass as volume increases. My lighter sound therefore benefits from lower amplifier volume, suiting the relative quietude of acoustic ensembles (whilst a commercial sound may be too loud).

booming tone of the middle of the low strings is encouraged by plucking *sul tasto* or over the neck pickup with the soft part of the thumb; the thinnest tone is achieved in frets I-II, encouraged by fingernail plucks next to the bridge. Similarly the player's expressive range includes rest/free strokes, *p i m a c*, palm muting, tapping, tapped harmonics, scratching and rubbing the strings: thus I rarely worked with compression. Composers should specify the lighter tone if desired, because the commercial lo-mid focus is currently assumed.

Despite extant anxiety about the sounding security of harmonics, they can, in fact, be perfectly achieved with good technique and EQ adjustment in a seamless continuation of the instrument's range. Usually this is achieved by selecting and plucking near the bridge pick up, boosting hi-mid EQ, plucking with a defined point on the fingertip or fingernail and releasing the left hand immediately after attack. The tendency for an undesired thud at the start of notes, increasingly marked in higher partials, may be alleviated by chorus or compression if desired. Harmonics may be quieter than fundamentals, and more difficult to achieve at speed. Composers should accommodate this, perhaps by allowing preparation time before dedicated harmonic passages, or where harmonics and fundamentals are required together, by keeping material relatively simple. Material comprising complex harmonics is possible, but its technical difficulty risks being compositionally ineffective.

The diversity of contemporary timbres has been magnified in the technological revolution, making the bass's relationship with music technology highly relevant. The recent revolution in computational power has enabled studio levels of sound design and timbral/spatial control to be possible in live performance.⁴ Indeed, the properties of the acoustic instrument may be completely disguised by design; for example, its poor sustain may be replaced by notes of

⁴ With the caveat that the acoustic properties of the room will affect the programmed sound.

infinite length, by fading into a delay or loop pedal. In performance, changes of ‘patch’ can be quickly employed through pedal switches, but are safer with preparation time.

Although signal processing can mask the properties of the source instrument, in most cases, its fundamental attributes will come through: propensities for certain gestures, inflections, pitch range, sonorities, wave forms and envelope will distinguish the treated bass from the treatment of another instrument.

Orchestration

Broadly, amplified bass guitar sound is focused and insistent relative to the spectral complexity of acoustic instruments. This has led to the assumption of Andriessen and others that any bass guitar note functions as a fundamental pitch.⁵ However, I have shown the bass to possess a range of sound qualities, and to play a variety of musical roles, for example, by orchestrating three bass guitars in *A Few Thoughts On Creation*, markedly separating their respective material and tone qualities.

Although in commercial music arrangements a lone bass guitar tends to dominate the bass range, in an instrumental ensemble it can blend well. It can give a confident definition to lower orchestral parts, when doubled with bass clarinet, double bass or other bass instrument. Its definite attack and insistent tone provide security and assertiveness, while the acoustic instrument offers a continuity of sustain. The bass also blends well in mid range with the warmth of French horn, saxophones, trombone, cellos, timpani and tam-tam.

Indeed, if the bass is scored alone in an acoustic ensemble, it can seem uncomfortably separate, or even ineffective with its relatively dull spectral profile. Any sense of acoustic/electronic ensemble disjunction may benefit from a range of ‘connecting’ instrumental timbres: ringing

⁵ See discussion on page 70

metallophones, keyboards and harps, for example. Furthermore, a very wide Penderecki-like palette of timbres destroys any preconceptions of a ‘balanced ensemble’.

Where the bass guitar is the leading foreground instrument, accompaniment needs to be markedly relegated through dynamic separation, or simplicity of accompanimental material. This is especially necessary because the bass is likely to be accompanied by instruments of higher pitch and brighter timbre: rhythmically empty, separated or repetitive accompaniment will draw the listeners’ attention to the lower solo instrument. Bass sound may be further promoted by a brighter EQ, or hard rest strokes.

It is tempting to assume that strong amplification will ensure prominence, but this is not necessarily the case: high absolute volume may not be desirable, and the bass’s peak-and-quick-decay envelope problematic.⁶ More securely, prominence is achieved by writing to the bass’s strengths – its percussive punctuation, and the full tone of its ‘singing middle’. Blended material may benefit from a lighter tone, employ the extremes of the strings, or utilize the subtleties of *p i m a c* and free strokes.

Furthermore, delicate techniques are not made assertive simply through high amplification. Harmonics, for example, are swamped by any coincident orchestration, and are best placed in rhythmic separation. Indeed intricate classical-guitar-isms and *Sequenza*-like subtleties of timbre/articulation are largely ineffective in orchestration: the bass’s more delicate capabilities are best reserved for solo or chamber settings.

In larger orchestration, the bass is more suited to the ‘simple fundamental theatre’ of gross gestures, or monophony with a full tone and central right hand technique. Likewise, control of tone in a large orchestration is best achieved through technological setup in the received commercial way.

⁶ Indeed, its poor sustain is often more apparent in orchestration.

The Performer

There exists a vast range of performance practices among bassists. Of these, only one methodology is supported by an established education system: that of jazz fusion, which is itself constantly being developed through personal experimentation. Thus it is very difficult to score for bass in the traditional way, no two bassists being alike in skill-set or approach. Some players may be fluent in classical guitar techniques, for example, others not; some may be aware of contemporary classical performance practice, others specialist inflectors of a particular vernacular genre. One might conclude, therefore, that a) score-based rehearsal alone is inadequate, and b) it most efficacious to compose for particular players, in individually-tailored projects. Thus substantial collaborative conversation should be factored in to any rehearsal process.

Throughout my research, I worked with notation-reading players – suiting the score-based compositional process and rehearsal practicalities of contemporary art music – but simultaneously focussed on accommodating the individuality of the player: including myself, the five bassists were experienced in contemporary classical, jazz and commercial musics. Through creative use of the score – open ‘cells’, periodic structures, improvisation over familiar ‘changes’, succinct example material, sparing fall/bend/glissando notation, mood words implying peculiar inflection – I encouraged individuals’ vernacular vitalities much more successfully than traditional scoring would. I created ‘example audio’ rehearsal resources, which vastly improved performers’ engagement with my musical ‘voice’ and stylistic nuances. Contemporary classical music is primarily Conservatoire-based, and I did not work with non-reading bassists: this is certainly an area for further consideration. My work with Rudy the rapper, however, serves as a successful example of working practice with non-readers. Like Rudy, a non-reader might benefit from visual aids, such as a graphic score or ‘crib sheet’; audio

examples may be the primary source of learning; there may be more emphasis on rehearsal; and the limits of aural learning may be accommodated in the structure of the composition.⁷

Because of the experimental nature of my research, to an extent I had to ‘go it alone’. Art music bass players exist, but expectations of them, beyond received/fundamental roles, are only nascent or fragmentary: some guitar-like polyphonic techniques were unfamiliar to my bassists, for example, and the *Sequenza* particularly stands as a benchmark of as yet uncharted territory. My research raises these expectations, successfully employing bassists in unique art music that utilizes the bass in new ways, and employs lively vernacular attributes creatively.

Extending Techniques/Musical Roles

The bass guitar’s received usage in commercial music and jazz fusion could be said to be modelled on the double bass, with its monophony, fundamental pitches and rhythmically punctuating melodic hooks/riffs. My concern was to extend both the instrument’s technical expectations and its musical roles in art music.

A distillation of much of the argument arises from conceiving of the bass as a guitar. A guitar is capable of polyphony, contrapuntal material, melody and harmonic accompaniment, as well as strumming rhythms and a wide range of articulations and inflections. The ongoing development of the bass to encompass guitar techniques can be seen in the enthusiastic production of 5- and 6-string models, tenor-basses, Warr basses and the like.

A central aspect of guitar technique, unusual on bass, is the use of all the fingers of the right hand (**p i m a c**). Concurrent with my research, online fusion-bass tutorial resources were moving

⁷ This is not to say that complexities are unattainable; much progressive rock, for example, is unscored but highly aperiodic and developmental.

away from the received ‘anchored’ *i m* rest strokes, too, for example in Victor Wooten’s RH double-thumbings, triplet up-slapping etc., and Todd Johnson’s freely moving ‘unanchored’ *i m*, providing increased speed, dexterity and agility.⁸ Developing further into full *p i m a c* massively increases polyphonic ability and vertical agility within the fretting box (including the ability to rake upwards); it eases damping and string ringing issues, and it provides the close and varied control of tone at source that I promoted in the gestures and textures of my *Sequenza*.

The received usage of the bass guitar is perhaps most apparent in gestural inflection. There have been developments here, too, for example in the work of Dominique di Piazza.⁹ My successful work on inflection – through prescription, open ‘mood word’ instruction or controlled improvisation – is most notable in the *Sequenza, Release the Penguins!, I Like It When the Bass Comes In* and in the raw gestures, pre-bends and sitar-like soloistic work of *A Few Thoughts on Creation*.

Almost the whole portfolio places the bass guitar away from its double-bass-like role. It is never orchestrated with drum kit, and rarely given purely a bass or backline role. Instead I developed unaccompanied solos, concertinos, multiple bass pieces, and orchestrated the bass with acoustic instruments, orchestra, wind ensemble and chamber quartet. In doing so, the bass undertakes many unfamiliar aspects of art music: the control of timbre and dynamic at source, fluid expressivity through rubato and classical phrasing, and varied harmonic/polyphonic, textural/orchestrational, pitchless/percussive and melodic/coutermelodic roles. Indeed, at its most developed, my material comprises complex art-fluid combinations of all of these.

⁸ As discussed on pp.13-14, technique has been the principal developmental motivation for most bassists. See Adam Nitti’s *Moveable Anchor Technique* at

<http://www.youtube.com/watch?v=hDzRqeS0ruQ&feature=related>

and Todd Johnson *Bass Guitar : Floating thumb technique* at

<http://www.youtube.com/watch?v=PPVMBPmrblU&feature=related>

⁹ See Note 11 and Dominique di Piazza’s album *Face to Face* (2010)

That the project highlights the potential of the bass guitar to engage in art music implies an ongoing and future direction for the research. There are several ways in which I feel it can now develop, as follows:

- 1) Further composition for unaccompanied bass guitar; the format is creatively very promising, and the repertoire so limited.
- 2) Further orchestration of the bass in acoustic ensembles, especially in creatively unusual roles: textural, polyphonic, expressively rubato, accompanimental in mid range etc.
- 3) More work with detailed, characterful inflection, especially at speed; funk music is highly developed in this, but more exploration in art music is warranted.
- 4) Further composition without score, by rehearsal in the vernacular way, with a view to widening the expressive expectations of art music.
- 5) Moves to increase awareness of the uses of bass in art music, encouraging more bassists to engage in art music practice, and promoting an according educational system or culture.
- 6) Amongst art music bassists, the normalization of Di Piazza/Wooten-like virtuoso techniques from vernacular music, and further development of them, many of these techniques having been unfamiliar to the bassists in this project. Similarly, the normalization of classical guitar techniques.
- 7) Exploration of the adaptation of instrument design to better accommodate the natural control of tone by the player at source, especially where pick-ups are limited in which acoustic resonances they hear.

- 8) Examination of the impact of new generations of music technology on bass guitar sound production, working ergonomics, and creative potential. The current bass guitar industry will do this organically, and as a matter of routine; but the specific needs of art music composition offer alternative lines of enquiry.

My work on this project highlights the opportunities offered by these future directions. It recalls Crumb's 'extension in the historical and geographical' and reflects the ongoing erosion of the 'constipated agenda' of establishment art music.¹⁰ I can claim, therefore, to have succeeded in exploring the potential of the bass guitar in art music through highly effective composition. In writing and executing the portfolio pieces, I show a detailed knowledge of the project's many aspects, combining composer prescription with the instrument's vernacular vitality to produce music for the concert hall.

¹⁰ See Motivations for the Project on p.2.

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