

# Music, Recording, and the Art of Interpretation

Paul Draper and Stephen Emmerson  
*Queensland Conservatorium Research Centre*

**Abstract:** For millennia, music has been a performance-based artform open to continuous variation and reinterpretation. More recently however, industrialisation has allowed for the mass-production of sound recordings, in turn bringing conjecture about the changed nature of music reception in society. This article reflects on related practice-based work by its authors and examines aspects of music production and representation. Technically, this is approached through a range of multi-track recording and sound treatment processes. Artistically, the sound productions highlight aspects of musical compositions, their scores and performances in order to explicitly communicate emotional interpretation and ongoing research into artistic practice.

**Keywords:** Artistic practice, music, interpretation, performance, production, recording

## PRELUDE TO THE STUDY

*Interpretation is essential to both music and language, but in different ways. To interpret language means: to understand language. To interpret music means: to make music. Musical interpretation is performance, which, as synthesis, retains the similarity to language, while obliterating every specific resemblance. This is why the idea of interpretation is not an accidental attribute of music, but an integral part of it. To play music correctly means first and foremost to speak its language properly.* (Adorno, 1998[1963]; p. 1)

For most of human history, music has been an ever-changing, activity-based artform. More recently since Edison's invention of the phonograph, musical performance became capturable as a Gutenberg-like text to fix single interpretations in time for subsequent dissemination, stockpiling and/or endless review (Atalli, 1985[1977]). Throughout the 20th century this evolution attracted much controversy, from the famous Benjamin (1968[1936]) and Adorno (1975) artistic vs. mechanical debates through to other considerations about representation and consumption (Read & Welch, 1976). Post World War II, the literature split quite distinctly into two camps: the first of these aligned with classical music and audiophile culture, becoming somewhat obsessed with ideas of authenticity and fidelity as if recordings really 'were' the music itself (Hamilton, 2003); the second camp arose out of popular music practice, empowered by transformational technologies and the wealth of global album sales (Frith, 1978). This led directly to multi-track recording, the rise of the record producer and the construction of sound art-works or 'phonography' such as *Sgt. Pepper's Lonely Hearts Club Band* (The Beatles, 1967), *A Night at the Opera* (Queen, 1975) and other similar milestones (Moorefield, 2005). While musical language expanded greatly, ironically, the nature of authorship was increasingly subjected to radical reconsideration (Gould, 1966) and misrepresentation through corporate intellectual and artistic control of music as a commodity (Draper, 2008a).

Following the rise of the internet however, postmodern reconsiderations of *musica practica* (Channan, 1994) have come to the fore given the emancipation of many artists through pervasive multimedia technologies and independent collaborative networks (Draper, 2008b). In many ways, music is returning to its original aspirations in what Christopher Small (1998) calls *musicking* – music as action. Yet this also continues to be expressed through manipulated sound recordings and approaches strikingly similar to the Western classical music tradition's distinctive respect for the music itself, where performance is essentially in service of the composition. This paper examines these ideas via the juxtaposition of its two author's respective expertise in piano performance and sound production. Both disciplines aim to combine their languages in order to better speak musical interpretations as part of an ongoing action research project. To do so, the paper firstly examines the immediate research location and earlier undertakings which identify specific aspirations for the work. A resulting methodology is then outlined in order to undertake a series of performances and recordings where the results are later described and interrogated. Finally, the paper draws its conclusions in order to clarify and refine the author's approaches to producing a forthcoming larger body of creative work.

## THE VENUE AND THE ARTISTS

Located in Brisbane, Australia, the Queensland Conservatorium Research Centre (QCRC) hosts a number of research areas and corresponding academic clusters. Perhaps the most ephemeral or misunderstood of these is the *Artistic Practice as Research* theme (QCRC, 2008), its somewhat contentious nature residing in the use of the adverb 'as'. Contemporary research and its funding is mostly driven by a science model which rests on empirical evidence and the reasoning of text-based outputs. The idea therefore that artistic practice itself might be research (or conversely, that rigorous research outcomes can be argued through artistic practice) is a work in progress in university-based arts faculties. To this end, the QCRC therefore pursues the understanding of such musical activity and its clarification as research within the academy:

*This cluster of projects documents the role of research in creating artistic works across musical styles and genres. It aims to map out the research components of artistic practice, from initial concepts to final performance. (Ibid; para. 1)*

This project builds upon earlier work of its authors in order to progress this theme. One author is Stephen Emmerson, a classical pianist and a musicologist who has been working to better communicate the mental and mechanical preparation required for high-level performance practice. For example, in *Around a Rondo* (Emerson, 2007) he extensively details interpretations of Mozart's intentions through audio visual and written analyses of other musician's approaches as well as those of his own. These perspectives bring deep insights into dynamics, tempi, emotions and other subtle variations which reveal much about classical music as a resilient yet ever-evolving artform. This project seeks to leverage these insights through new repertoire and a range of interpretations made explicit in manipulated sound recordings.

The other author is Paul Draper, a jazz musician and record producer with a history of commercial record and film sound track work. Recent activity brings questions which aim to be clarified in this project. For example, in the case of the recent *Foreign Objects* album (Draper, 2008c), while some recordings gave an impression of authenticity given familiar musical structural forms, in other pieces this analogy broke down. Where the compositions were more abstract and improvisational in nature, it was clear that once the performer's bodies were no longer in the recording space, the remaining audio remnants were in no way indicative of the music. Conversely, in concert these same pieces were the high points for both performers and audience alike. Therefore puzzles arise as to how best interpret, produce and project meaning for such recorded works minus any of the musician's essential performative attributes.

## THE REPERTOIRE

A series of important works came up, to be performed on the 29 October 2008 in the Queensland Conservatorium's Ian Hanger recital Hall by Stephen Emmerson (2008). The compositions date from 1908, regarded as a landmark in the history of European Modernism with a number of the 20th century's most remarkable composers finding their distinctive voice around that time via seminal works for solo piano. These include Alban Berg's *Sonata Op. 1* (see Kuster, 2004), Arnold Schoenberg's *3 Piano Pieces Op. 11* (see Raley, 2005) and Béla Bartók's *Bagatelles Op. 6* (see Antokoletz, 1981). This challenging repertoire requires extensive mechanical rehearsal and intellectual preparation by the pianist in order to bring both virtuosic performance and a depth of meaning to the works as outlined in the opening aims of this paper.

Subsequently it was agreed by the authors that this concert event would serve as preparation for further research into the interpretations underpinning the execution of the music. Firstly, the concert was recorded in order to review these performances and to inform the research design of how the underlying emotional contexts might be exaggerated through further sound recording and production processes. Given the complexity and overall length of the repertoire at around 80 minutes, it was also necessary to detail both the artistic and technical rationale for just how the project would be staged in a series of developmental undertakings in order to refine the methodology and common language necessary for a cohesive outcome. These matters are now detailed in the following sections.

## RESEARCH DESIGN

Bartók's Bagatelles comprise a series of 14 short pieces and were seen as ideal for the purposes of developing various processes at the micro level. Three classes of sound-types are described and argued as representing emotional 'subtexts' based on Bartók's personal history and are explored as an underlying narrative for the work (detailed further, below). This aims to be realised via the application of recording and post-production approaches in response, for example, by manipulating microphone placement, multi-tracking of left and right hand parts, utilizing digital signal processing (DSP) and so on to amplify these interpretations. Because this paper examines only the pre-production for a more extensive undertaking, some boundaries were placed around the research design. Firstly, the recordings were made within a studio's acoustically-limited performance space and so considerations were given to the later use of a large concert hall. Similarly, the studio piano was a Kawai grand while the theatre instrument would be a much more refined and expensive Steinway. Secondly, these works were to be developed within a limited time frame, with one half day for set-up, the second day for recording and evaluation. Therefore it was agreed to limit the choice of Bagatelles in order to maximise a representative number of outcomes where each piece is provided with its own particular tone quality and character. An analysis of these works then provides additional meaning through an iterative process which refines and aims to extend this knowledge across all the Bagatelles and in the later Berg and Schoenberg productions.

## ARTISTIC RATIONALE

Bartók's Bagatelles are famous as a collection of pieces which explore a range of innovative compositional techniques (polytonality/bitonality, symmetry, twelve-note collections, quartal harmony, clusters etc.) as well as reflecting his explorations with folk music. The range of the musical languages employed has encouraged the view that they are "not a true cyclic composition . . . but rather a more loosely ordered collection, an anthology". (Somfai, 2007, p. 32). However, as a musciologist, Emmerson is convinced that the sharp contrasts in style are part of the overall concept of the work as a cycle of pieces that successively builds with a cohesive sense of narrative progression. Beyond merely a collection of compositional experiments or exercises, he understands them as having strong emotional and programmatic implications that develop through the cycle. From a historical perspective, he argues that these pieces reflect Bartók's pain and disillusionment at a failed and unreciprocated love affair with the violinist Stefi Geyer for whom he had composed a violin concerto in the previous year (1907). This is made explicit in the 13<sup>th</sup> and 14<sup>th</sup> Bagatelles which make clear references to that work through quotation of a leitmotiv that he associated with her.

Three approaches emerge in response to this. Firstly, there is a series of slow expressive pieces where the range of emotions moves through what might be described as from tenderness /sadness (6<sup>th</sup>), then pain (9<sup>th</sup>) through to anguish (12<sup>th</sup>) and despair (13<sup>th</sup>). These are terms which are meaningful to Emmerson's performance interpretation of the series and he understands this type of expression and its progression as the 'subtexts' underlying the meaning of the cycle. For example, the falling scale passages in the first Bagatelle reflect the sense of being emotionally defeated and depressed, but in this piece they are juxtaposed against the pentatonic, positive and life-affirming right hand part which seems to be the second approach adopted, as shown:

The image shows a musical score for the first Bagatelle by Béla Bartók, op. 6. The score is in 4/4 time, marked 'Molto sostenuto' with a tempo of 66. The right hand part is in D major and features a pentatonic scale. The left hand part is in B-flat major and features a falling scale. Handwritten annotations 'Sound 1' and 'Sound 2' are present. 'Sound 1' is written above the right hand part, and 'Sound 2' is written below the left hand part. The score includes dynamic markings 'mf espress.' and 'p espr. (pp)'. The title 'Bartók Béla op. 6' is in the top right corner.

Figure 1: 1<sup>st</sup> Bagatelle, bars 1-5

The right hand (upper staff) makes a clear reference to folk music and such allusions through the cycle are able to suggest a more positive attitude – like a possible antidote to the depressed side. These positive, affirming musical gestures then representing the second main subtext underlying the cycle. This aspect is most prominent early in the cycle of pieces, most explicitly in the 4<sup>th</sup> and 5<sup>th</sup> pieces but present in various forms through to the 10<sup>th</sup> Bagatelle.

The third approach to the Stefi Geyer affair is one of disillusionment and an increasingly dominant subtext is expressed through bitter irony/sarcasm which builds through various pieces through the cycle. This culminates in the last Bagatelle where the main theme of the violin concerto is parodied by turning something originally serene and sublime into a bitter and twisted form. This third subtext starts in a mild playful form in the 2<sup>nd</sup> bagatelle and develops through the 7<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> pieces (NB that some of these ‘negative’ ironic pieces are interrupted by references to the ‘positive’ at key moments). In summary, three main emotional subtexts develop through the cycle as indicated in the Table below.

Bagatelle	Characteristics
1	opposition between [sound 1] <i>depressed falling scales</i> and [sound 2] <i>rising pentatonic phrases</i> (bitonal)
2	[sound 3] playful with some irony (symmetrical structures)
3	cloudy ostinato above melody (uses all 12 tones)
4	[sound 1] positive assertion of folk music (pentatonic melody with harmonisation in parallel chords)
5	[sound 1] again, another folk song
6	[sound 2] sad
7	[sound 3] ironic, but also some [sound 1] positive aspects (very unstable in speed)
8	[sound 2] pain
9	[sound 3] ironic, but with some dramatic interruptions of [sound 1] forte pentatonic passages
10	[sound 3] biting dissonances but also some [sound 1] positive content building to the biggest resounding texture (climax of the set)
11	[sound 3] an ironic caricature (playing with the Tristan chord, that is, mocking Romantic representations of love)
12	[sound 2] anguish
13	[sound 2] despair
14	[sound 3] bitterness

Table 1: *Emotional subtexts for each of the Bagatelles*

[Sound 1] affirms though positive reference to folk music, [sound 2] indicates the painfully expressive responses, and [sound 3] the negative/ironic /disillusioned ones. Seeing it thus, it is argued that the positive subtexts fade whereas the others become successively more extreme as the cycle progresses and culminates in the complete despair of the penultimate piece and the grotesque bitterness of the final Bagatelle.

## TECHNICAL RATIONALE

Clearly, the pianist therefore tries to underline these three expressive states/subtexts through performance techniques and resulting contrasts of tone colour/quality. However, these definitions have the potential to be enhanced and amplified through various forms of artificial intervention in the recording and post-production processes. The idea is not to impose sound effects on the music, but to magnify the interpretations by crafting and producing sounds where these particular qualities of tone are clearly distinct, as summarised in Table 2 below.

[sound]	Subtexts	Qualities
1	Noble, representing the strength and purity of folk music, that is, melodies emphasizing pentatonic intervals such as minor thirds, perfect fourths and fifths. Usually <i>mezzo forte</i> or above, often in slow tempos.	Resonant but not in any way harsh. Reverberant, grand, smooth and dream-like. A concert hall-like effect.
2	Personal highly expressive, to be used for pieces or passages which are painfully sensitive. Mostly this sound would be in soft pieces and so should be gentle, special and precious.	As if coming from a small distance but still intimate and natural. A small room and audience perspective.
3	Strident, ironic, sarcastic, biting. Usually fairly loud and fast, sense of closeness and edge.	Highly detailed with harmonic content. Under the microscope as if the listener were 'inside' the piano.

Table 2: *Sound-types and technical approaches*

Overall, the progression through the pieces (as outlined in Table 1, above) should successively exaggerate the differences between them. For example, the last Bagatelle should be the harshest, the most extreme form of [sound 3]. In some Bagatelles there should be degrees of blending these sound settings together in layers, and/or the possibility of moving between these three sounds within a single piece when the musical expression/gesture requires it. Technically, this was prepared as follows.

### **Recording and Post-production Medium**

A ProTools HD3 recording system and ICON console would be utilised to record at 88.2Khz sample rate, 24 bit depth. In the case of the high bit depth, this is best used to respond to extremes in dynamic range. In the case of the sample rate, while the HD3 system can record all the way up to 192kHz and thus offer great detail in frequency and harmonic content, Draper's past experience indicates that this can produce unwieldy outcomes. Such ultra-high sample rates not only place extreme demands on system performance, track count and hard disk space, more importantly, this greatly limits the availability of DSP tools. Consequently, 88.2Khz is used to provide both high quality recording and manipulability, with the additional benefit that this can be down-sampled to CD with good sound results given the half-math conversion to 44.1kHz.

### **Track Count**

A total of eight audio inputs would be matched to four pairs of microphones (as detailed below). This provides eight tracks of playback and four different ways to record the piano. It also means that the piano can be overdubbed, for example, by the recording of left or right hand piano parts in subsequent takes, thus accumulating further sets of eight tracks as required. Overall, these parts would then be compiled and edited to make a complete piece as per the artistic rationale.

### **Communications**

Line-of-sight and eye contact in the studio is important in the artistic process. Subtle body language and clues travel back and forth, and the artists usually develop a natural rhythm and trust in the process. Subsequent recording takes can be heard in the both the recording studio live room or in the control room, either through speakers or headphones located in both spaces. Overdubs and multi-tracking are accomplished via the use of a talkback system and headphones. Overall aspects of this environment are important to consider given that some cannot really serve authentically as preparation for the later work in the concert hall. In this case, Emerson would be physically separated from Draper in the studio by some considerable distance. Planning for this is therefore discussed later in the concluding section of the paper.

## Signal Path and Microphones

Analogue to digital (A/D) convertors are one of the most important components in the recording chain – without care or quality components, digital transfers can make the recordings sound brittle, harsh and thin. In this case, all sound would be digitised into the computer system via a high quality Apogee Rosetta 880. The other vital components in the chain are the pre-amplifiers which not only provide the microphones with the necessary gain for optimal signal-to-noise ratio, individual approaches to design and intent bring highly variable aesthetic qualities to the sound and response of various microphones. Therefore, different microphones are matched to different preamplifiers according to the artistic rationale for the sound-type.

For [sound 1], *a grand and smooth concert hall effect*, Neumann KM20 (fig. 8 polar pattern) and KM30 (omni polar pattern) microphones were to be positioned as an ambient MS-pair high above the piano and matched to a pair of Focusrite ISA-428 preamplifiers, known for their neutral sound and capacity for impedance variation to ‘tune’ the microphone characteristics. An MS array also produces a fine stereo image which can be extensively balanced and manipulated through relative microphone levels and phase relationships. However, while this kind of recording approach can produce an accurate indication of the acoustic environment, in this case, the studio live room may not be able to convey the kind of space described in the intentions for [sound 1]. Therefore these microphones may be of use in overall layering of sounds, but the necessary ambience may need to be artificially created via post-production DSP.

For [sound 2], *as if coming from a distance but still intimate*, this would likely be best achieved with ‘classic’ spaced microphone placements, somewhere around two meters apart and approximately a half meter or so in front of a ‘full stick’ open grand piano lid. This approach utilises large diaphragm AKG C-414s with polar patterns set to cardioid or pushed-cardioid for stereo balance. Positions and width can be adjusted to refine this balance of distance vs. intimacy and can be further enhanced in post-production via the judicious use of compression and/or equalisation. In this case, the microphones are matched to Amek CIB preamplifiers which have a wonderful warmth and attractiveness often suited to vocal production.

For [sound 3], *highly detailed with harmonic content*, this would be achieved through the very close microphone placement of two sets of stereo pairs that also could be used in other blending tasks and variations on all sound themes. In the case of the primary pair, Neumann KM45s would provide a very detailed response and pushed cardioid polar pattern for improved imaging given their placement and spacing inside the piano above the hammers and frame. They are matched to SSL preamplifiers known for manipulability, ‘knife edge’ response and highly detailed accuracy. A second set of ‘boundary’ or PZMs (Pressure Zone Microphones) would be attached directly to the sound board under the piano. These work somewhat like a transducer, amplify the piano’s vibrations into detailed sound and are matched to Focusrite ISA-428 preamplifiers, again for their neutrality and capacity for impedance adjustment. There is also consideration of attaching the PZMs to the piano lid itself, a technique which may be later tested for use in the theatre recordings. In the case of this sound-type (strident, ironic, sarcastic, biting), it is likely that post-production will introduce variants of equalisation, compression or even distortion to highlight the overall effect.

## ANALYSIS AND DISCUSSION

After some consideration and negotiation between the authors, it was agreed that five Bagatelles would be selected for this immediate work: three of these to clearly represent each sound-type and production approach in isolation, with a fourth to highlight two sound-types and a fifth to represent all three. The outcomes and insights about each of the five recordings are now discussed in turn (however, the performance techniques of the pianist are not detailed further given the terms of this paper).

### 4th Bagatelle: [sound 1]

Of all the Bagatelles, this one aimed to present the clearest illustration of [sound 1] via a round and resonant sound with no harshness, even in the *fortissimo* chords. Because this piece is a harmonisation of a folksong, it ‘sings’ across the horizontal structure in deference to the vertical

harmony. The use of the MS pair of microphones as described above did not really convey the sense of expansiveness, distance and wistfulness required. This was primarily because the room was not large enough to produce this ambience naturally, however, this placement did produce an excellent set of randomised early reflections in response to the dynamics of a given piece and so were useful in other enhancement tasks. To produce a satisfying and agreeable outcome for this Bagatelle, the 'classic' position and microphones used in [sound 2] were manipulated through some decrease in high frequency equalisation, a degree of re-positioning in relation to the open lid sound projection and finally, through the construction and application of a high quality convolution reverb tool. *Altiverb* is a DSP plug-in for ProTools which rather than synthesising a digital reverb, models these based on the mathematical mapping of real acoustic spaces and concert venues from around the world. In this case, a large cathedral in Germany was taken as a starting point to refine a resulting ambience which suited the piece/sound-type.

In terms of taking this forward into the concert hall environment, while DSP may still be employed, it is far more likely that the Conservatorium's \$25 mil. theatre will produce just the results the authors are seeking given prior experience in this environment. In this case, the MS pair will be retained and placed somewhere in the forward seating of the venue, aiming to represent the stereo perceptions of a concert-goer listening to the music at approximately 15 meters into the hall. Another set of Neumann KM30 omni microphones will be hung from the roof of the venue and positioned some 30 meters away for the stage to provide the smooth, ambient and natural impression required. All distance microphone audio tracks will be time-aligned for acoustic accuracy (at some 1ms. per meter offset).

#### **6th Bagatelle: [sound 2]**

This piece aimed to be intimate, exquisitely painful and expressive, all within a fairly restricted dynamic range. This outcome was well achieved through the use of a blend of the microphones used for [sound 1] and [sound 2] placements, although primarily the latter. A small amount of compression was used on both sound sources in order to bring out more of the intimacy, yet to maintain this sound-type as distinctly identifiable from the other two. Finally, a judicious amount of convolution reverb was applied, this time modelled on a small wooden drawing room and enhancing the feeling of one sitting quite close to the piano in an intimate space.

There should be no reason that this approach should not transfer well into the theatre environment. One primary consideration here is in the use of a much more refined and expressive instrument in the Steinway grand. This may effect the performance of the pianist given the responsiveness and tone, but also in terms of how the instrument projects just what sounds and inflections to be recorded. Nonetheless, given the [sound 2] requirements for intimacy and expression, these matters should only improve the outcomes.

#### **14th Bagatelle: [sound 3]**

This is the most extreme of the sounds – sarcastic, harsh, bitter and twisted. In this case, the very close placement and choice of microphones were highly suited, perhaps unsurprisingly, because this approach is used commonly in popular music production where artificial brightness and separation from other often loud instruments is the norm. However, other effects were also experimented with to greater or lesser success and some of these may be matched to other certain pieces in the final recordings. As per the other trials, equalisation was used to trim out unwanted material, in particular here, the low frequencies. Compression was used more severely to limit the dynamic range and to exaggerate the detail and inflections of the piece. Finally, a mild amount of valve-like distortion was applied, but perhaps best automated in its application in order to highlight only certain phrases. This was accomplished by a number of options including the use of an electric guitar amplifier emulation as well as that of analogue tape recorder saturation effects.

Again, it is likely that these techniques will transfer easily into the concert hall environment. What remains to be judged is just how and where these effects will be applied throughout the full range of material. Most likely, these kinds of interpretations will prove effective by contrast in multi-track layers of differing sound-types.

### **1st Bagatelle: [sound 1] and [sound 2]**

This piece represents a combination of [sound 1] and [sound 2] and is famous as an early example of bi-tonality with each hand being notated with a different key signature. Moreover, both hands move at different times, are completely distinct in character and are virtually incompatible. Its meaning has to do with the profound contrast of two different sounds, the right hand as [sound 1] and the left hand as [sound 2]. In this case, the two corresponding technical approaches were applied best when each hand was recorded in isolation from each other and so the piece was assembled in two different takes. This required a guide count-in from the performer to indicate the starting point and a subsequent overdub with careful attention the first pre-recorded track. A click track was not appropriate given the nuances of timing and dynamics throughout.

In this way, the resulting recordings were highly successful with a clear delineation between sounds and performance styles as described above. These were produced in a number of ways in relation to both layering and stereo image. While subtle and perhaps more musically comfortable, a composite image with mild stereo placement still allows the listener to easily distinguish between the two parts /sound-types. Another version set the parts as essentially mono (recalling that each of these passes are recorded with a pair of microphones), but placed these in more extreme, opposing positions in the stereo field, that is the left hand [sound 2] at 75% left and the right hand [sound 1] at 75% right. This was a much more dramatic outcome and may be used in certain final treatments where the aesthetics intentions suit.

### **10th Bagatelle: [sound 1], [sound 2] and [sound 3]**

This piece represents the most complex production of the five, not only by virtue of the fact that it uses all three sound-types, but in that it also requires specific changes at certain bars. This approach helps define some of the techniques to be used in other more complex pieces and especially during the much longer durations of the Berg and Schoenberg works.

Essentially, [sound 3] is used to underline the dissonances, but also the resonance of [sound 1] is layered in the *fortissimo* sections, for example, such as directed at bar 15. Bars 1-14 [sound 3], 15-22 [sound 1] and 23-26 [sound 2] are completely distinct but there is a gradual transition from [sound 2] back to [sound 3] through bars 27-30. Bars 52-64 are strident but then bar 77 to the end is massive – the most resonant sound possible while still essentially bright and vibrant. All of which required multi-tracking, layering, mixing and automation very similar to that which is used in additive, popular music recording and production.

## **CONCLUSIONS**

This paper opens with the premise that there are liberating and research-worthy possibilities for combining the two traditions of Western art music performance and contemporary sound production as a composite language to amplify certain artistic interpretations. Subsequently, the authors argue an action cycle pathway to achieving this goal and reflect upon this phase of the outcomes. Yet as a work in progress, clearly, many unanswered questions remain.

In terms of the immediate next stages, while it may be reasonably clear that many techniques will be successful because of performance/technological expertise and planning, what may be of more relevance is in how a common language continues to evolve between the artists in terms of expectations, working styles and new approaches arising from the cyclic process itself. Here, the authors leave open the possibility that insights attained in post-production may lead to concepts for the music that were not evident earlier. Furthermore, Emerson working at an extreme distance in a concert hall remote from Draper in the recording studio presents communication challenges beyond technical solutions. While a video link will be established so that the studio can view the stage and there will be talk-back, headphones and playback speakers in the theatre, there will be no line-of-sight or capacity to respond to the subtle clues and working camaraderie that was established in the closer confines of the face-to-face studio glass. This will be interesting and revealing to see what currently unknown vocabulary develops and responds to deal with the core necessities of flow and communication, especially when it comes to the lengthier and more complex pieces.

Another set of considerations arise around just what kind of outcome this project will deliver. What kind of product, and who might engage with it? Throughout the project thus far there have been a number of (still contested) discussions about this, from Emerson's ideas for a DVD multi-layered soundtrack where a user might change to different sounds/interpretations via the use of the DVD language selection key. Draper remains unconvinced and sees this as a novelty product, yet perhaps useful for a select research audience. Instead, he argues for a traditional two CD set with accompanying explanatory booklet. One CD would provide a complete set of works produced in a single, consistent fashion as a quality audiophile recording, with a second CD to provide all the various 'interpretations' as deliberate, sometimes extreme variations across the sonic continuum. Similarly, Emerson is unenthusiastic about this option, perhaps seen as an ill-conceived commercial stance given a limited audience. The middle ground may be to build a website to highlight all aspects of the project, but while this may be yet deployed to add insights around a product, web-based audio quality and access remain as concerns. Finally, one great unknown and somewhat inspirational challenge here is in just how the series of interpretations might be woven together into an aesthetically pleasing and successful artwork that makes sense to and engages a wider audience without written intervention, that is, in an inversion of the QCRC research theme – through *research as artistic practice*.

Fundamentally, the project challenges the predominant approach in the recording of classical music where such works promote the illusion of capturing a concert experience and that sound production decisions appear to be transparent. Here the authors have argued that classical music language can benefit from deliberate interference in the recorded product provided this is congruent with research into the underpinning musical meanings. And so the music is not just manipulated/remixed to produce an essentially a different piece (although this remains a valid possibility) but maintains that central aspect of *musicking* which leads to new ways of experiencing music. If this can be realised, then perhaps the artists have begun to master the art of interpretation and the ability to speak music's language more effectively.

## REFERENCES

- Adorno, T. W. (1998[1963]). Music and language: A fragment. In *Quasi una fantasia, Essays on modern music*, pp. 1–6 (Trans. Rodney Livingstone). First published as *Quasi una Fantasia* by Suhrkamp Verlag 1963. London: Verso. Available at [books.google.com/books?id=VoLcL5F1qzUC](http://books.google.com/books?id=VoLcL5F1qzUC)
- Adorno, T. W. (1975). Culture industry reconsidered. (Trans. A. G. Rabinbach), *New German Critique* 6 (Fall 1975): 12–19.
- Antokoletz, E. (1981). The musical language of Bartók's 14 Bagatelles for Piano. *Tempo*, 137, 8–16.
- Attali, J. (1985[1977]). *Noise: The political economy of music (theory and history of literature, vol. 16)*. Originally published in 1977 as *Bruits: essai sur l'economie politique de la musique* (Trans. Brian Massumi). Minneapolis, MN: University of Minnesota Press.
- Benjamin, W. (1968 [1936]). The work of art in the age of mechanical reproduction. In H. Zohn (trans), *Illuminations: Essays and reflections*, pp. 217–252. New York: Schocken.
- Chanan, M. (1994) *Musica practica: The social practice of Western music from Gregorian chant to postmodernism*. London: Verso.
- Draper, P. (2008a). Who's really doing the stealing? How the music industry's pathological pursuit of profit and power robs us of innovation. In proceedings of ARC Centre for Excellence for Creative Industries & Innovation, International Conference, *Creating Value Between Commerce and Commons*, 25–27 June, Brisbane. Available at [www.cci.edu.au/publications/who's-really-doing-stealing](http://www.cci.edu.au/publications/who's-really-doing-stealing)
- Draper, P. (2008b). Perspectives on networked music culture: Audio files, audiophiles, and the reflective musician. *New Media & Society* (in press). Available at [www29.griffith.edu.au/imersd/draper/publications/research](http://www29.griffith.edu.au/imersd/draper/publications/research)
- Draper, P. (2008c). *Foreign Objects*. [Sound producer]. Clocked Out Duo. Erik Griswold and Vanessa Tomlinson. Music CD. (in press)
- Emmerson, S. (2008). Kawai keyboard series, 20 October 2008. Queensland Conservatorium Ian Hanger Recital Hall. Available at [www3.griffith.edu.au/03/eventcal/eventdetail.php?epk=4883](http://www3.griffith.edu.au/03/eventcal/eventdetail.php?epk=4883)

- Emmerson, S. (2007). *Around a rondo*. DVD/DVD-ROM (2-disc set). Brisbane: Queensland Conservatorium research centre. Available at [www.griffith.edu.au/music/queensland-conservatorium-research-centre/resources/around-a-rondo](http://www.griffith.edu.au/music/queensland-conservatorium-research-centre/resources/around-a-rondo)
- Frith, S. (1978). *The sociology of rock*. London: Constable.
- Gould, G. (1966). The prospects of recording. *High Fidelity Magazine*, 16(4),6–63. Available at [www.collectionscanada.gc.ca/glenngould/028010-502.1-e.html](http://www.collectionscanada.gc.ca/glenngould/028010-502.1-e.html)
- QCRC (Queensland Conservatorium Research Centre). (2008). Artistic practice as research. [Website] Brisbane: Griffith University. Available at [www.griffith.edu.au/music/queensland-conservatorium-research-centre/research/artistic-practice-as-research](http://www.griffith.edu.au/music/queensland-conservatorium-research-centre/research/artistic-practice-as-research)
- Hamilton, A. (2003). The art of recording and the aesthetics of perfection. *British Journal of Aesthetics*, 43(4), 345–362. Available at [bjaesthetics.oxfordjournals.org/cgi/content/abstract/43/4/345](http://bjaesthetics.oxfordjournals.org/cgi/content/abstract/43/4/345)
- Kuster, A. (2004). *Analysis of Piano Sonata, Op. 1 (1907-8)*. Alban Berg (1885-1935) [Website]. Available at [home.earthlink.net/~akuster/music/berg/pianosonata.htm](http://home.earthlink.net/~akuster/music/berg/pianosonata.htm)
- Moorefield, V. (2005) *The producer as composer: Shaping the sounds of popular music*. Cambridge: MIT Press.
- Queen (1975). *A Night at the Opera*. [Recorded and produced by Roy Thomas Baker]. EMI 5504 [CD]. London: EMI.
- Raley, L. (2005). *Arnold Schoenberg: Three Piano Pieces, Op. 11*. A Learning Object created for the Associated Colleges of the South Orpheus Alliance. Available at [www.colleges.org/techcenter/music/modules/op11/index.html](http://www.colleges.org/techcenter/music/modules/op11/index.html)
- Read, O. and Welch, W. L. (1976) *From Tin Foil to Stereo: Evolution of the Phonograph* (2nd ed.). Indianapolis: H. W. Sams.
- Small, C. (1998). *Musicking: The meanings of performing and listening*. Hanover, NH: Wesleyan University Press.
- Somfai, L. (2007). Notes accompanying Zoltan Koscis's recording for Hungaraton Records. Trans R. Robinson. Available at <http://www.bartoknewseries.com/english.asp?id=8>
- The Beatles (1967). *Sgt. Pepper's Lonely Hearts Club Band*. [Recorded and produced by George Martin]. PHO 7027 [CD]. London: Parlophone.

© Copyright Paul Draper and Stephen Emmerson [2008]

### About the Authors

PAUL DRAPER is a professor of digital arts at Griffith University's Centre for Public Culture and Ideas and is the Deputy Director of the Queensland Conservatorium Research Centre. As an educator, he has designed, taught and convened undergraduate and research degree programs in music technology, popular music and multimedia, is the recipient of numerous grants in these areas, and received a national award for excellence in research for his Doctoral thesis on educational technology. He is the Director of IMERSD, the Australian university sector's premier 5.1 surround-sound recording and post-production studio, engaging in industry consultancies, work-integrated learning, postgraduate training and research publication. He is a jazz musician, publishes as an active record producer and writes on higher education and the arts.

STEPHEN EMMERSON graduated from New College Oxford with an M.Phil in 1983 and a PhD in 1989. As a performer, he studied piano with Pamela Page and Peter Wallfisch. At the Queensland Conservatorium he teaches various music literature and performance-related courses, convenes the Doctor of Musical Arts program and is a member of the Conservatorium Research Centre. As a pianist, he has performed widely around Australia, New Zealand, Asia and the Pacific. In addition to solo performances on piano and fortepiano, the focus of his performance career in recent years has been within various chamber ensembles including the *Griffith Trio* and *Dean-Emmerson-Dean*. Recordings of his playing have been released by ABC Classics, Move Records, The Anthology of Australian Music on Disc, CPO, Tall Poppies and Contact.