

**Remixing Modernism: Re-imagining the music of Berg,
Schoenberg and Bartók in our time**

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Remixing Modernism: Re-Imagining The Music Of Berg, Schoenberg And Bartók In Our Time

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Introduction

This paper presents the final stages of a two-year action research project, where a number of insights into a single recording endeavour have been published along the way (Draper & Emmerson, 2009; Draper, 2010). The music itself dates from 1908, regarded by many as a landmark in the history of European Modernism, with some of the 20th century's most remarkable composers finding their distinctive voice via seminal works for solo piano. These include Alban Berg's 'Sonata Op.1', Arnold Schoenberg's 3 'Piano Pieces Op.11', and Béla Bartók's 'Bagatelles Op.6'. The works were performed as a centennial celebration in 2008, followed later by studio recordings involving a close collaboration between the authors – one a classical pianist and musicologist, the other a sound producer and electric guitarist. As such, this represents the meeting of two different paradigms in pursuit of a shared understanding of 'artistic practice as research' (QCRC, 2010). The recordings were recently released as a double CD set entitled *Remixing Modernism* on Australian label, Move Records (Emmerson, 2010).

In what follows, we firstly outline some of the musicological considerations which underpin the project. We then detail an overarching research methodology to frame the three case studies presented here, as well as clarify our approach to their representation on record. Finally, some conclusions are drawn both from the authors' research and from various stages of peer review of the recordings themselves throughout the production process leading to market.

Approach

It is useful to reflect upon some of the historical trends in the representation of Western art music on record. At one time, prominent Classical musicians like Leopold Stokowski, Herbert van Karajan and Georg Solti enthusiastically embraced recording technology. They worked with sound producers such as John Culshaw to deliberately manipulate ambience and balance to create soundscapes that were not possible to achieve in the concert hall. As Avard Ashby notes, ". . . it is difficult to separate technology from musicianship in Stokowski's work and thinking: the two converge in service of beauty, expression, and convenience" (2010, p. 48).

In the 1960s, Glenn Gould became an important spokesman and exponent to argue for recordings as a distinct (and for him preferable) mode of both presenting and listening to music. For Gould, "recording and concert performance were distinct art forms, each with its own premises, priorities, ethics, and possibilities" (Bazzana, 1997, p. 244). He also argued that recordings would serve some types of repertoire more than others, particularly in relation to certain types of intimate and esoteric music better suited to private contemplation rather than the usual public forms of presentation and reception. For example, he wrote that,

Schoenberg's theories . . . [attribute] significance to minute musical connections . . . they deal with relationships that are on the whole subsurface and can be projected with an appropriate definition only through the intercession of electronic media. (cited in Riley, 1989, p. 235)

Gould claimed that Schoenberg was in fact one of the first musicians to grasp the significance of recording to the composition process and appreciated the opportunities for works to be presented in novel ways. As Schoenberg himself wrote,

Imagine a musician attendant upon a mechanical instrument which he commands. This is what he has to do: he needs an exact knowledge and understanding of the work he is to perform, and has to influence the reproducing apparatus so that, in the matter of dynamics, the performance attains the degree of clarity and expressiveness matching his insight and taste. He is in a position to draw for this purpose upon every means of altering the tempo and the sound. (1926/1975, p. 329)

More recently however, prevailing notions of authenticity have driven a purist approach involving the production of high fidelity recordings and the release of so-called 'live performances' (interestingly, just at the point when popular music began to exploit multi-tracking and was in fact moving in the opposite direction). Modern recordings of Classical music generally promote the illusion of transparency, aiming to resemble as closely as possible the ideal concert performance. Under these circumstances, while audiences appear happy enough to accept recordings as surrogates for the live concert experience, many producers of classical music continue to go to great lengths to maintain such a delusion.

While some recent music research has focussed on recordings – particularly historical ones – as a means of analysing performance practices (e.g., CHARM, 2010), many Classical musicians continue to harbour deep suspicions of recordings as a valid representation their art-form. For example, Simon Rattle has claimed that "music was not meant to sound like gramophone records" (cited in Ashby, 2010, p. 1), and sprinkled throughout the recent *Cambridge Companion to Recorded Music* (2009) are various opinions that reflect similar unease. These include: concerns about technological interference as a form of "cheating" (Greig, 2009, p. 23); Donald Greig's noting of an underlying belief of many classical musicians that "in the age of mechanical reproduction . . . something is inevitably lost in recording" (2009, p. 23); through to Susan Tomes' admission that "for me [a recording] is never something I can wholeheartedly endorse because with the best will in the world it remains an artificial construct" (2009, p. 11).

The underlying assumption seems to be that recording "by its very nature falsifies the art music experience" (Ashby, 2010, p. 8). The prevailing discourses around Classical music still remain primarily in terms of works and their live performance, with recordings being viewed "at most, accessory to the performance" (ibid, p. 35) and as a technical rather than aesthetic process. As such, there has been "an almost wilful ignorance of classical production, an attitude seemingly shared by performers" (Greig, 2009, p. 21), and in stark comparison to the production of popular music in recent history, arguably, few classical musicians have engaged with sound producers in a genuine artistic collaboration of this nature.

Aims

The brief exploration above therefore sets the research space for our project. Here we now document our own recent sound production collaborations in order to examine, understand and interpret the music of the aforementioned important composers who lived and wrote a century ago at the time of the birth of recording technology. In particular, Glenn Gould's concept of 'acoustic choreography'¹ (Bazzana, 1997) was in many ways a starting point for us, but also in his conviction that technological interventions may be justified in service of the work.

As our project developed, a number of research questions came in focus in relation to the representation of Classical music on record. Although these works are heard relatively infrequently in concert, there are already a multitude of other recordings of them. What would be the purpose of yet another recording of these pieces? Moreover, as we came to contemplate the developments over the century since their composition, the question arose as to what sort of recording would be appropriate. Subsequently, we became increasingly intent that whatever interventions were made, that these should reflect, underline and

enhance our interpretation of the work – of both its form and language. The overall aim was to extend the music's meaning congruent with the work rather than imposing a new one upon it.

Methodology

At a quiet time around Christmas 2008, we appropriated our university's best Steinway concert grand piano to record it in our 700-seat concert theatre, primarily for the pianist's comfort given the familiarity of the acoustics. Performances were tracked using microphone pairs variously spaced throughout the hall as well as close to the piano. These included omnis at a distance, an MS-pair, large diaphragm mics at the end of the piano, cardioids above the strings, and PZMs attached to the soundboard. Passes were variously recorded as complete takes, some according to specific bar numbers, others overdubbed as left and right hand parts. With 80 minutes of programme material recorded at 24bit /88.1kHz, this left us with considerable raw material.

Our methods unfolded as we began to work together in the studio, a collaboration between very different sets of ears that were bought to bear upon every aspect and every decision involved in the process. Given our quite long prior relationship within the university, there was no sense that either one of us had priority (although we do recall some slightly testy moments!). Both had powers of veto if anything moved in a direction that seemed to be inappropriate. In fact there was an unspoken openness to explore, experiment, and especially to improvise.

Our first deliberations about the takes eventuated in the compilation an intermediate set of edits in the 'horizontal' time-based domain. During this process we also became increasingly conscious of the 'vertical' domain, that is, in the multi-track lanes of ProTools containing overdubs and the multiple microphones spaced around the piano. Somewhat surprisingly, much of the distance mic-ing was simply too unrefined, often noisy with external sounds, AC hum and the odd door slam, and overall, did not provide a particularly pleasing or 'authentic' production ambience. Subsequently we arrived at just four stereo tracks which were then consistently coded throughout the project as: 'Main' AKGs at piano end (in green), 'Close' Neumanns above the strings (blue), PZMs attached to the soundboard (red), and the MS-pair (purple) 10 meters out into the hall, as shown in Figure 1 below:

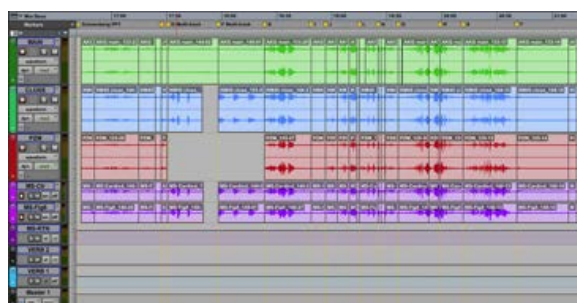


Figure 1. Schoenberg's 'Piano Piece No. 1', edits and track compilation.

While this thinking initially arose from our technical judgements, we also aimed to incorporate broader aesthetic concepts via this same colour-coding of audio regions. This included descriptions like 'bold, positive, uplifting' (green), 'intimate, fragile, plaintive' (blue), 'scary /intimidating' or 'bitter and twisted' (red) and 'soft, distant, wistful' (purple), and later to the various possibilities for combinations of tracks – the overall schema for which was refined and fully documented in an earlier paper about the Bartók Bagatelles (Draper & Emmerson, 2009). Overall, this approach resulted in the conceptualisation of the recordings in their final form as a two CD set with a short explanatory booklet. The first disc we called the 'Horizontal album' in that it works from a largely traditional approach of compiling best edits along the time axis. The second 'Vertical album' then adds changing 'colours' and sound combinations up and down the ProTools lane domain.

As the project developed, there were other notable elements worth briefly mentioning here. As a matter of course, the Horizontal album did not finally take the form of a 'middle of third row' concert perspective, but more that of a studio-based, contemporary production supported by the exclusive use of the AKG-C414s, together with carefully designed Altiverb virtual spaces. There were multiple reasons for this, including the fact that we enjoyed the greater detail of piano technique through this treatment (although a little plagued by pedal and hammer noise), but also because we felt this approach might offer somewhat more 'shelf life' via a potential to be better heard across a range of perhaps less than ideal contemporary environments (e.g., iPods, ghetto blasters,

home entertainment systems, etc).

By contrast, the second Vertical album steadily evolved a life of its own through the greater part of the project. Initially we were working with a traditional, 'invisible' approach to the use of equalisation, dynamics and the like. However, there was a decisive moment as we worked on the Schoenberg during some especially surreal passages. We had not until this point added more extreme FX. What started as playful experiment, followed by "how does that strike you?", resulted in an approach that broke the illusion of transparency, one that was no longer concealed but explicit. This became a turning point in our method and significantly, a turning point for our conceptualisation of the two-disc set. After that moment, things were never the same again.

The second Vertical album mix therefore utilised the aforementioned four sets of stereo microphone pairs, but also borrowed from contemporary production techniques including the detailed automation of DSP plug-ins for equalisation, pitch, reverberation, stereo field, distortion, compression and other miscellaneous effects (FX). However, unlike much popular music production, this often occurred at a score level to emphasise individual notes, chord clusters or musical gestures. Overall, this led to an approach detailed in a subsequent paper as "DSP orchestration" (Draper, 2010, p. 3), indicated here in Figure 2 below:

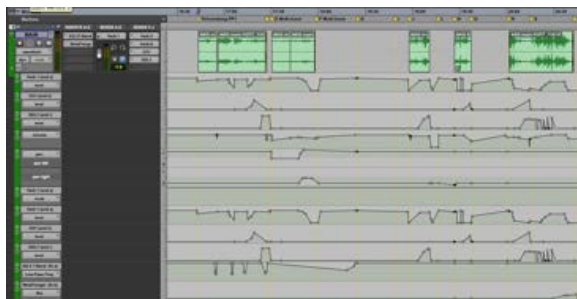


Figure 2. ProTools automation lanes as 'DSP orchestration'.

The remainder of this paper will now discuss aspects of the works from each of the three composers in turn, illustrating the reasoning behind some of the decisions that were made along the way. Necessarily selective, Figures provided throughout show some of the detail by which sounds were manipulated in order to enhance our concepts of the music's meaning.

Three Case Studies From The Vertical Album

Alban Berg's 'Sonata Op.1'

Of the three composers' works, our version of the Berg Sonata was by far the one where the outcome most closely matched a preconceived concept. Although it was the last piece we mixed, it is the only work that was produced in line with Gould's concept of 'acoustic choreography'. It was important that our treatment reflected the nature of the work's musical language. Unlike the later pieces on the discs, the Sonata has no sharp contrasts or abrupt juxtapositions, but evolves gradually from one tonal area /texture /dynamic to another, and as such, it reflects the Wagnerian 'art of transition'. We wanted to reflect this quality of the work while also underlining the structural divisions of its traditional sonata form. We resolved to use different qualities of mixes to underline the formal divisions and gave each section a sound quality which we felt was appropriate to both its structural function and its expressive character. Table 1 (below) outlines this structure, followed by Figure 3 which shows the ProTools tracks and form divisions /markers.

Structural Section	Form	Bar No.	Markers
Exposition	1 st subject	1	A
	2 nd Subject	29	D
	Closing theme	49	H
Repeat (of exposition)	1 st subject	(1)	A2
	2 nd Subject	(29)	D2

	Closing theme	(49)	H2
Development		57	J
Recapitulation	1 st subject	111	R
	2 nd Subject	137	X
	Closing theme	167	E1

Table 1. Berg Sonata structure.

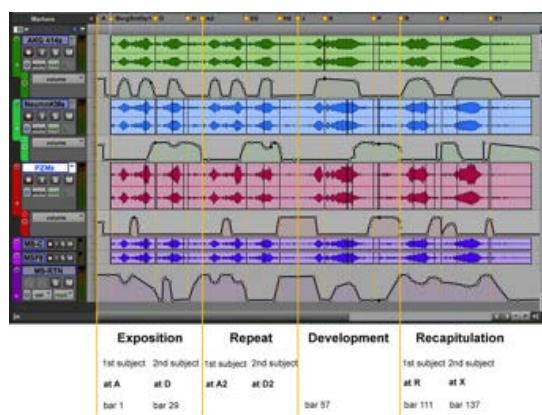


Figure 3: Berg 'Sonata Op.1' with volume automation following the sonata form.

Traditionally, the analysis of Classical music has tended to focus primarily on tonal aspects, with the dynamic shape seen to be of secondary importance to the articulation of sections. In this case however, the complex harmonic language creates an ambiguous floating sense of tonality. Consequently, as contrasting key areas no longer carry the traditional structural function, the role of other factors such as dynamics and texture are greatly enhanced. The volume curves shown in Figure 3 provide a clear overview of this shape in relation to its sonata form. To underline the primary sections we wanted a subtle but distinctly different sound quality, for example, to contrast between the first and second subject areas. As such, the second subject area (D–A2) has a more consoling and nostalgic quality from the first (A–D). Note the smooth transitions across most of the formal divisions as microphone pairs are joined or replaced by another and how these are related closely to the dynamic shape of the music.

The piece opens with the distant quality of the MS-pair to provide an appropriately plaintive quality. As the dynamics grow, the AKGs are added to the mix to give more immediacy. Notice how the gradient of the volume from these microphones grows with the sound dynamics, with the swells towards the two fortissimo passages (bars 8 and 23) while the original pair drops. As the Figure shows, the MS-pair drop slightly in the first swell but then return for the transition before falling away by the second subject (at D /bar 29). The Neumanns take over and are gradually introduced until they dominate the sound of the whole subject area (D–A2). The shape of AKGs also reflect the dynamic swell here, and again in the closing theme section (from H).

As is traditional in a Classical sonata form, Berg's Sonata repeats the exposition (at A2–J). One option would have been to give the repeat a completely different arrangement but, as the goal was to underline the form, we decided to give it a similar but not identical shape to the first time. Just as the repeat is not simple duplication in the playing, the microphone distribution follows the same basic shapes but differs in various details. This is evident in the large-scale Figure 3 overview, but the differences are even more apparent when comparing closer views. The most immediately noticeable difference is the absence of the MS-pair at D2.

The 'art of transition' (evolving smoothly) meant that changes in sound were often prepared over a number of bars/seconds. For example in Figure 4 (below), at around letter J the volume of the PZMs and MS-pair remain constant while the respective automation shapes for FX including digital delay (DDL1) and chorus (CH1) underneath are deliberately not aligned. On the MS-pair both the reverb (VERB1) and CH1 build from H2 (though their highpoints do not coincide). From J, VERB1 continues to climb while CH1 gradually reduces.



Figure 4. Berg 'Sonata Op.1' with FX automation following the sonata form.

Other aspects were enhanced to underline specific musical features of the work, perhaps best observed in relation to the development section (J to R) by comparing the contrast between the two soft passages at either end – from J (bar 57) and from P (bar 100). We wanted both these to sound exceedingly precious, fragile even. The first, at J, presents a colour and character unlike anything else previously in the piece and we felt that it was important to introduce this with an unprecedented quality of sound. The second at P is in a dreamy manner that recalls the second subject closely – in fact, its function is that of transition back to the recapitulation. Berg's recapitulation is far from a restatement of the Exposition and this is reflected by mixes that are comparable, yet significantly different in detail. This approach is exemplified in the volume curves, J dominated by the PZMs and MS-pair, and P by the Neumanns and PZMs. Note the added reverb on both the MS-pair in the first section transiting gradually from H2, and in the second section using the Neumanns – both options giving varied softer qualities to the sections.

Figure 4 (above) also shows some prominent spikes in the DDL automation. This is used to cite specific musical references to perhaps the most notorious single chord of 19th century music – the first chord of the Wagner opera, *Tristan und Isolde* – the so-called 'Tristan chord'². We were intrigued to find the chord so prominent in the Berg Sonata (and in the Bartók Bagatelles). Suffice it to say that the spikes evident in the DDL1/2 lanes coincide with the placement of the Tristan chords and are intended to give them a special ambience. For the pianist /author, these were intended as much more than analytical observations – once he had earlier learnt to recognise recurring strategic placements of this chord in various pieces (always in close proximity to climaxes), his interpretation in performance gave particular prominence to these chords by way of placement and dynamics. This is also something we had never heard in other recorded interpretations of Berg's Sonata, and while the sonic enhancement here may be subtle, it exemplifies a very specific way in which an understanding of the piece is enhanced.

Arnold Schoenberg's 'Three Piano Pieces Op.11'

The Three Piano Pieces are truly a landmark works, not only for being among the first examples of atonality in music, but also in embodying confronting new concepts of form. Thus, in original intent, these pieces are profoundly different to the Berg Sonata. Beyond an intuitive rather than traditional sense of shape, there are sudden and abrupt changes at time involving extreme and explosive contrasts.

As explained earlier, we had originally preconceived our treatment of the works in terms of four distinct, colour-coded sound settings, but we ultimately went well beyond this, recognising that the radical nature of the Piano Pieces deserved an equally radical approach from us in the studio, one which involved a new level of complexity in responding to the kaleidoscopic musical gestures. Initially we had conceived this in terms of contrasts of space – metaphors of closeness and distance. But also these pieces had always been highly suggestive visually to the pianist /author, informed by his musicological expertise and interest in the life and works of the composers under discussion here.

Around the time of composition of the Three Piano Pieces, Schoenberg was exploring the idea of *klangfarbenmelodie*, where aspect of tone colours were to be the most prominent and form- determining of the musical parameters. Schoenberg had taken up painting in 1908, and along with close contact with Expressionist painters, this was a deep stimulus to his musical development, enabling him to achieve a truly atonal language through what he famously called ‘the emancipation of dissonance’ (1926/1975). When this programme was first performed at our university in late 2008, images of Schoenberg paintings were projected above the piano. These included landscapes and abstract images in the ‘Piano Piece No.2’ and increasingly grotesque self-portraits in Piano Pieces No.1 and No.3. Like our sound productions to come, this approach was intended to reinforce the visually suggestive nature of the music itself and to assist listeners to find other ways of accessing this difficult musical language.

It was therefore one of our objectives to develop the potential visual quality of this music. However, we believe that the final outcome does not resemble just a two-dimensional painting, but intends to suggest the depth of three-dimensional space and contemporary aesthetics in this sense. The musical image moves both by panning and/or by moving near and far in the reverb field, and through this the recording suggests immersion, aiming to draw in and support the listener in a unique sonic world, perhaps informed by familiar treatments from film music. These are also hopefully congruent with some of the composer’s original musings about just such a potential for new contexts in another era. Schoenberg writes,

Not only does each age have a different tempi and make different demands on performance . . . but even the demand for greater or less clarity in the constitution of texture alters. (Schoenberg, 1926/1975, p. 327)

Moreover, Schoenberg saw the defining attributes of the music as embedded in only certain parameters, noting that other characteristics may be freely adjusted according to interpretation:

For the true product of the mind – the musical idea, the unalterable – is established in the relationships between pitches and time-divisions . . . all the other things – dynamics, tempo, timbre and the character, clarity, effect, etc, which they produce – are really no more than the performer’s resources, serving to make the idea comprehensible and admitting of variations. (Ibid, p. 326)

Schoenberg’s ‘Piano Piece No.1’ is the most complex of our interpretations and the Protocols screen shot is shown in overview at Figure 5 (below). Overall, this came to be a result not only guided by aforementioned artistic and historical considerations, but also via an ongoing, lengthy ‘sandpapering’ process – that is, through evolving decision-making processes in relation to just how extreme to make these effects.



Figure 5. Schoenberg ‘Piano Piece No.1’.

The work came to be remarkably detailed, often focussing on momentary effects. In general we wished to err on the side of the bold, and our first attempts involved many long hours adjusting a couple of seconds of music. It became a perpetual challenge to keep such effects in proportion to the overall flow and structure of the piece, and so we often would move on to other tracks before returning to this piece and reconsidering it. We lived with various versions for some time, and played these to friends and colleagues for feedback – not unlike an action research project with its cycles of action and reflection. In general we tended to start with more extreme treatments effects than what we ended with. One of the last sessions – several months after we did the first versions – involved simply ‘turning down’ many of the FX, not just to ‘play safe’, but mostly to try to keep the effects in suitable proportion to the whole.

In Schoenberg’s ‘Piano Piece No.2’ at Figure 6 (below), additional multi-track recording of overdubs (brown /gold coded) was employed to record hand parts individually. This approach is rarely used in piano music but it seemed appropriate when the musical content overtly highlights the distinction between the two hands (see Figure 7 below). Probably more than any other work on the disc, this piece evokes a sense of moving through three-dimensional space, and this was likely reinforced through the additional separation of hand parts.

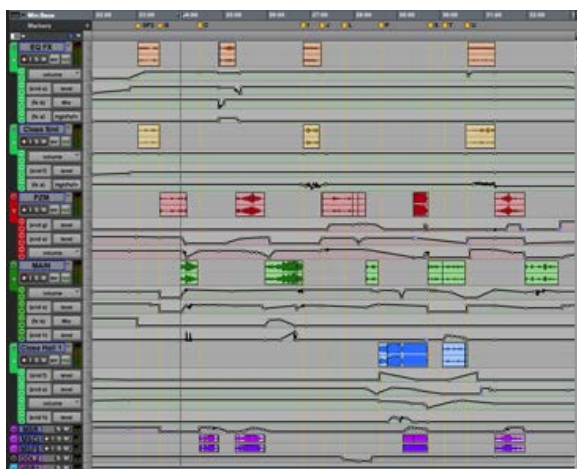


Figure 6. Schoenberg ‘Piano Piece No.2’, multi-tracking.



Figure 7. Schoenberg ‘Piano Piece No.2’, opening bars of score.

Different musical materials are reflected in distinct sonorities (e.g., in the first two minutes of the recording). A pianist would be aiming to achieve such contrasts as written into the score, but here this was deliberately exaggerated in the studio. Letter B (at Figure 6, above) shows a change of microphones to the PZMs to give a close, thin sound. As the sonority builds, quite suddenly towards the first forte at 24:00, the AGs (marked ‘Main’) cross-fade so the forte jumps out as a dramatic effect in quite a different space. At letter C, the same musical idea from B recurs, but now in augmentation – it develops quite differently and is given another new sonority. As musical ideas recur throughout the piece they are almost always varied and so, to match the

nature of the score, variants of the corresponding tracks and DSP FX are employed.

Thus the treatments of the Piano Pieces are quite different to the Berg Sonata. The forms of the Schoenberg pieces are much less traditional, and being quite fluid they are difficult to describe in traditional terms. Nonetheless, in the case of the 'Piano Piece No.2', Figure 6 does in fact provide an impressively clear representation of a sound structure which is complementary to the musical argument in the score – one might say that it moves in counterpoint with it.

Béla Bartók's 'Bagatelles Op.6'

The range of techniques adopted in Bartók's Bagatelles were heavily influenced by the individual nature of each of these 14 short vignettes. We refer the reader to our first paper in the series (Draper & Emmerson, 2009) which documents the production of Bagatelles No.1, 4, 6 and 14, along with arguments for our preliminary approaches to the production schema. Here in this paper we now focus on aspects of the Bagatelles which have not been explored, firstly in overview at Figure 8 (below) then followed by closer inspection of Bagatelles No.7, 9 and 11.

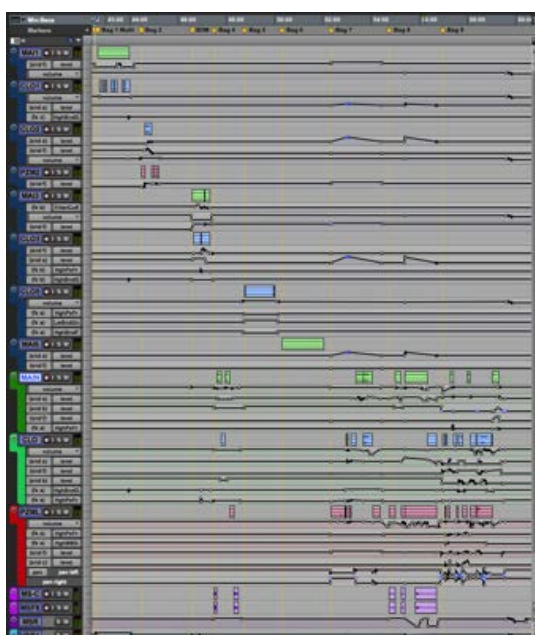


Figure 8. Bartók Bagatelles Nos. 1–9.

Figure 8 shows a variety of approaches (for Bagatelles Nos. 1–9, given space considerations). Some of these maintain a single production setting throughout (e.g., Nos. 5/6), while others are multi-tracked yet also maintain a consistent sound (Nos. 1/3). Some are straightforward where the ternary form is aligned with the treatment (No.2), or as in No.4 where each successive phrase is given a different sound quality. Others receive highly complex treatments in response to their detailed musical nature, and in general, there are more of these as the series progresses.

Such decisions were guided by what the piece suggested to us. For example, in No.13, we felt that the recording needed to reflect the music's dirge-like quality and sense of obsessive focus³. In response, we sought an appropriate sonority to capture this oppressive heaviness but then left the music to speak for itself without further treatment. Similarly No.6 is full of highly personal expression, and once we landed upon what we considered to be a particularly beautiful piano sound – clear, intimate and tender – this was then 'let sit' for the entirety of the piece. No.5 has a single treatment, using a plug-in to give it the quality of an old scratched LP record.

Unlike the advanced dissonant musical languages of the other Bagatelles, Nos. 5 and 4 stand out as being remarkably conservative and reactionary. They are essentially folksongs, and in the case of No.5, giving it the quality of an old recording was

to signal how this piece didn't seem to fit in with the rest. Indeed, this was also part of the composer's intention – to contrast the highly personal expression elsewhere in the set with the purity of folk music. (It was to be some years before he was able to forge a language where these two divergent aspects of his style could be reconciled rather than dramatically juxtaposed as is done here). There was also another resonance: Bartók, himself a fine pianist, recorded a few of the Bagatelles in 1920s, but the sound quality is very poor and distorted. And so, the performance style in which our new recording of the piece was played is similarly anachronistic, with less than stable rhythm and sounding as though it could do with some editing.



Figure 9. Bartók Bagatelle No. 7.

Bagatelles Nos. 7 to 9 all have sharp juxtapositions of textures and our treatment responded to these in detail. No.7 in Figure 9 (above) is particularly playful but also ironic and satirical in tone, and so we sought a quality far removed from the beautiful sound of No.6. As the Figure shows, in the outer sections it largely uses the PZMs together with some more extreme EQ to accentuate a somewhat fraught character. This is not a natural sound at all, but one which we hope underlines the mischievous and sardonic character of the piece.

Bagatelle No.9 as shown in Figure 10 (below), takes the interventions of No.7 even further. This is easily the most complex and detailed of our treatments thus far in the Bagatelle series. Overall, the sound alternates between the Neumanns and PZMs before these are combined in the second half. However, this is interjected by three loud pronouncements from the AKGs – perhaps we imagined, assuming 'the Voice of God' – which seem to interrupt the rather skittish playful proceedings elsewhere in the piece. The AKG treatment stands out dramatically from everything else here thus articulating the formal concept.



Figure 10. Bartók Bagatelle No.9.

These more complex treatments in No.9 continue a process across the series where the faster pieces (Nos. 2, 5, 7, 9, 10, 11, 14) become progressively more grotesque. The juxtaposition of the last piece following the funereal dirge of No.13 was again of personal significance to the composer, with No.14 subtitled '*Ma mie qui danse*', the macabre element related back to Romantic precedents from Berlioz and Liszt. No.14 is a bitterly ironic waltz that twists the theme from the 'Violin Concerto' Bartók had written earlier that same year⁴.

Perhaps the most idiosyncratic response was to Bagatelle No.11, as shown in the short DSP spikes in Figure 11 below. This relates back to our point about the Tristan chord. The chord turns up in all sorts of places and because its role was built into our conception of how these pieces work and what they express, we were keen to also reflect its various placements in Bartók's Bagatelles. It is most pervasive here in our working of No.11, as follows.



Figure 11. Bartók Bagatelle No.11.

No.11 was seen as a series of humorously misguided attempts to arrive at the Tristan chord⁵. Given Bartók's own rejection in love (see Notes 2/3 re. the 'Stefi Geyer affair'), the symbolism is apt and the treatment is deeply ironic. He nearly achieves the Tristan chord in bar 2 but instead is one semitone out and thereby arrives on a chord in quartal harmony. He stops as though to

think on it, tries again in bars 3 and 4, then approaches once more through bars 5–9, only to end up further away each time. He tries to repeat this in case it works out, but it doesn't – each of these failed attempts are made to sound somewhat ridiculous by the DSP spikes, and in the final section, he seems to have landed on it almost by chance. The piece finishes far from where it starts, in fact in some desolation, significantly on the notes of the Tristan chord.

One might consider our studio interventions as a kind of musical arranging with alternate timbres, not to mention means of distortion – hence, our earlier references to DSP orchestration (Draper, 2010). The sentiment in many of the Bagatelles is overtly 'bitter and twisted' and so we wanted to find sounds that matched that quality (including a hideous merry-go-round effect in one piece). To underline the point once more – the recurring *idée fixe* of this article – our interventions here were to merely reinforce /enhance /exaggerate certain characteristics of the work that musicians would variously be trying to accomplish in live performance.

Conclusions

We hope that this has been a useful, if necessarily limited exploration of our work given the restrictions of a short text accompanied by some simple Figures. Certainly we encourage the reader to become the listener by expanding their judgement of our success or not through the recordings of the work on disc (Emmerson, 2010).

In recent peer-reviews, the Horizontal album attracted a largely positive but somewhat predictable response, perhaps given the familiar treatment and the difficult beauty of the music. Conversely, reactions to the Vertical album have been strongly polarised: "An assault on the Viennese tradition!" was one strident response. Or alternately, some (younger) listeners were so enthralled with certain tracks that they went back to the CD again and again. Early testing here would appear to indicate that our double CD 'alternate realities' concept works to a point, that is, simply choose which interpretation you prefer (interestingly, one postgraduate research student quipped: "so, just which one is the fake?"). Access to both versions is made reasonable with the enthusiastic support of Move Records who allowed us to market the double CD set and booklet for around the same price as a conventional single CD. However, even Move themselves offered numerous opinions about the Horizontal album re. 'third row' concert perspective vs. our close mic'd studio approach. And so the arguments go on . . .

We don't imagine that this will please everybody, and this was never our intention. Neither in this paper, nor in the double CD and booklet has the intervention of contemporary sound technology been concealed. It is potentially provocative and challenges some deeply embedded assumptions about Classical music – from the original intentions of the composer, to the concert performance experience, through to how recordings might relate to the work. Musicians have long been divided on these points, but we fall squarely within the view that the performance history of a work and its reception – ultimately its meaning – goes far beyond and transcends the composer's original context and intentions. To limit interpretation otherwise may indeed be counterproductive to the ongoing legacy of the Classical music canon.

A century after these compositions were first written by Berg, Schoenberg and Bartók, it now seemed an appropriate time to reconsider and hopefully contribute to a revitalisation of this seminal but challenging repertoire. We sincerely hope our recordings do so, and especially for a younger generation who primarily experience music through forms of digital mediation, and who may be comfortable with the ethos of processed sound and the general concept of 'remix'. The history of the art of record production throughout the 20th and 21st centuries demonstrates just how profoundly music, performers and audiences can evolve in symbiosis. Therefore if a work is to remain relevant and to continue to speak to subsequent generations in distant contexts once unimaginable at the time of composition, its performance practice must continue to be re-imagined – and long may it be so.

Footnotes

1 Gould likened advanced recording techniques to filmmaking. He used different takes in order to assemble a narrative, whereas a concert was more like a stage play. Another film-inspired idea of Gould's was to place various microphones at different distances from the piano. He dubbed this technique "acoustic choreography." Gould composed a shot list of microphones ranging from inside the piano's body to five feet away, nine feet away, at the back of the room, etc. This way, he created audio panoramas. Unfortunately, they didn't influence recording standards. (Keilor, 2007).

2 Wagner's Tristan chord is made up of the notes F, B, D# and G#. More generally, it can be any chord that consists of these same intervals: augmented fourth, augmented sixth, and augmented ninth above a root. The notes could be re-spelled to form a conventional half-diminished seventh chord. What distinguishes the chord is its unusual relationship to the implied key of its surroundings. At the time *Tristan und Isolde* was first heard in 1865, the chord was considered innovative, disorienting, and daring. 20th century musicians often identify the chord as a starting point for the modernist disintegration of tonality (Wikipedia, 2010).

3 Bagatelle No. 13 had deep personal meaning for the young Bartók relating to his distress over his rejection by violinist Stefi Geyer with whom he was infatuated. The piece was apparently sketched out on the day of the separation, marked *Lento funebre* and given the subtitle '*Elle est morte*'.

4 Again associated with the beloved and estranged Stefi Geyer, Bartók was later to orchestrate Bagatelle No. 14 as the second of the 'Two Portraits Op.5' which similarly expresses rather grotesque sentiments.

5 For example, compare to Debussy's 'Golliwog's Cakewalk' which again fails to arrive on the chord – with various humorous substitutes for it.

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Discography

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