Chapter 8

The 'little r' in Artistic Research Training

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The idea of ‘artistic research’ is increasingly gaining acceptance in the academy, one of its characteristics being that it accepts subjectivity (aka ‘little r’ research) as opposed to traditional scientific or statistical methods (‘big R’ research). Artists investigate, test and question their work, where the personal insights gained are placed in a context aiming to enhance knowledge both for themselves and within their own disciplines. This chapter details a number of interwoven components which present both familiar and unfamiliar thinking about musical practices in order to explore the following questions: How may musical thinking and its artistic outcomes be considered ‘research’? And, in what ways may its artefacts best serve to exemplify this?

In a recent visit to a European conservatoire one of the authors here was elated to have been part of an examination team to experience a week of a so-called ‘research festival’. This provided an intensive framework for graduating Master of Music candidates to defend their research projects in compelling blends of talk, text, screen and performance. At end of the week, academics and administrators reflected on this over dinner. Many spoke of the apparent ease with which students expressed themselves to offer deeply personal insights into their artistic practices while never seeming to offer any less than complete authenticity and trustworthiness. To which the institution’s principal enthusiastically exclaimed, “Ah no,

not the British ‘big R’ rhetoric. We do ‘little r’ research here – and we’re proud of it!!”

These notions of ‘big and little r’ we find provocative and inspiring, while at the same time resonating with tacit understandings that are beginning to emerge in our own institution in Australia. In this chapter we therefore explore this further via recent insights and activities of the authors as practicing artists and as supervisors of student research projects. To do so, we now turn to examine the local context and recent literature that informs our approach.

8.1 Context

Following the so-called ‘Dawkins reforms’ of the Australian federal government in the late 1980s, Colleges of Advanced Education and vocational institutions were amalgamated with universities. Similar to the later Bologna processes in Europe, this was the beginning of accountability processes that imposed the policy metaphors of public service departments and governments (Bessant 2002). In the arts, this included the implication that research is produced via familiar formats of text-based arguments by the theoretician and much less so by the practicing artist. This tended to be a natural fit with conservatories where musicology and composition were taught and disseminated along traditional lines that could easily be easily recognised, while performance staff continued to teach (albeit somewhat invisibly in relation to their own research traditions). More recently, the triennial Excellence for Research in Australia (ERA) evaluation exercise established the recognition of creative works. However, outputs continue to be measured along the boundaries of theoretician or artist – in the case of the former, via books, journals, citation indices, grant successes and so on; in the case of the

musician, via relatively low level proxy measures which include proof of (say) a performance, some form of peer review, and a self-authored 250 word 'research statement'. Nowhere is there the opportunity for researchers to portfolio both theoretical *and* artistic outputs and be recognised for this – yet oddly, this is exactly what is asked of the higher degree research candidates who are supervised by these same academics.

Research training in music commonly provides a supervisory team comprising a theoretician as the 'principal supervisor' to assist in dissertation writing, the literature review and method, together with an artist from the field in question to advise on practical matters but often positioned as an 'associate supervisor'. Perhaps this may have been once reasonably conceived given that many practical staff were mature age musicians employed as teachers since before university amalgamations, and consequently their skill base did not usually include exegetical writing. However it is clear that such higher degree qualifications can easily be skewed to inauthentic representation just as Dieter Lesage writes:

The insistence of universities on the obligation of a written supplement seems to demonstrate the university's lack of confidence either in the capacity of the arts to speak in a meaningful, complex and critical way in a medium of their choosing, or in the university's own capacity to make sound judgements on the meaning, complexity and criticality of artistic output as such. What might happen now is that juries will mainly base their judgement on a reading of the written supplement, because it complies with a long-standing format of the doctorate, as if it were the doctorate itself, while at the same time being tempted to consider the artistic portfolio merely as a supplementary illustration. (2009, 8)

Most recently this has begun to evolve given two important change-enabling events at the authors' conservatoire, the first in relation to practice-based research programs, the Master of Music (M.Mus) and the Doctor of Musical Arts (DMA). End 2011 was a watershed where record numbers of research candidates graduated and in particular, some 12 doctoral completions presented formats which begin to 'brand' the DMA

following its introduction in 2005. Within this mix were innovative and internationally successful outcomes beyond any unique selling point of scientists or musicologists, and many of which presented insightful accounts of artistic knowledge. The second impact has been that of an influx of younger academics and early career researchers (ECRs). As the theoretical /artistic divide begins to lessen, teaching and research supervision is increasingly informed by those with both PhD and artistic prowess to dissolve former notions about divisions of labour. Further, as even more recent practice-based doctoral graduates begin to be employed in universities we believe this will continue to accelerate these impacts (Draper and Harrison 2011).

8.2 Approach

In this piece we therefore wish to examine these events, place them in a practical context, and begin to draw conclusions as to some of the next possible steps for artistic research training. To do so, we draw upon the authors' experiences, research qualifications, outputs and methods – both as practicing artists and as scholars – but also by virtue of the fact that one author is an older academic (since 1995), a music technologist /jazz musician with a doctorate in education (EdD), while the other is a PhD-equipped composer and ECR who first joined the university in 2009. Our approach will focus on one particular aspect of the research continuum present within our institution – while other projects may investigate education, technology, community music, musicology and so on, this exploration is only concerned with the methods and issues relating to that of 'artistic practice as research' (APaR) (QCRC 2012).

We take clues from one of the earlier historical models for conservatoire research training: the PhD-by-Composition presented as a

folio of original scores together with an analytical exegesis (vs. the PhD-as-book styled musicological dissertation). In our experience we observe striking similarities between this format and that of the wider APaR cluster where projects are concerned with artistic development, thinking-through-making and representative artefacts. However the primary barriers to confidence in methodology, questions, findings or outputs would appear to be in relation to uncertainty about originality and the production of ‘new work’ (Draper and Harrison 2011, Harrison and Emmerson 2009). This is especially apparent for example in the case of performing artists who interpret other’s materials for their own applications.

8.3 Questions and methods

We seek to offer implications for how compositional thinking might be utilized in other musical sub-disciplines and as generic attributes for artistic research in music. Overall, we provide thoughts about answers to the following broad questions for APaR investigators:

- How may musical thinking and artistic outcomes be considered research?
- In what ways might musical artefacts best balance and serve to exemplify this?
- To what degree can the research be understood to be embodied in the artwork?
- How might traditional notions of questions, literature or method be understood?

To examine these matters we frame an exposition (Schwab 2012) to reveal so-called ‘little r’ thinking in music making, and as such to meet the OECD definition of research as,

Any creative systematic activity undertaken in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this knowledge to devise new applications. Includes fundamental research, applied research ... and experimental development work leading to new devices, products or processes. (2008)

Drawing from local experiences, we begin with the view that artistic research borrows and adapts from the social sciences by using qualitative research and intersubjectivity as methods to track and examine the work. Via narrative enquiry in particular (Polkinghorne 1988), we display a juxtaposition of our own creative and academic texts together with recent research training exemplars in order to display both familiar and unfamiliar thinking about musical practices. We use a music composition workflow trajectory as a metaphor to examine processes, documentation and the relationships between the two as Michael Schwab suggests,

If the transformative chain is kept intact, a reader should be able to reconstruct from its transformation elements of that practice that are essential to the epistemological claim that is made. The transformation that comes with the 'writing' of the 'article' exposes practice as research and develops an epistemological claim within an artistic idea ... the exposition of research does not start with the 'writing' of an 'article' but has invariably already started with the making of the work. (2012, 25)

8.4 Exposition

Here we examine our design of a performance workshop at a recent interdisciplinary conference (Draper and Cunio 2012) where we sought to unpack and explore particular musical provocations. Given that the audience comprised a wide range of interests, one could not assume detailed musical knowledge and we believed that we needed to take this into account and to *understand our audience* as an explicit key concern (a notion we will later return to). We therefore began by working backwards from a final piece of reasonably accessible, groove-based music to be performed at the opening of the set, followed then a by an invitation for

the audience to ‘live alongside’ us as the musical thinking and methods unfolded over time (Barrett & Stauffer, 2009), as follows:

- 1) in relation to musical improvisation (the beginning of a new work);
- 2) the formalization of structure, form and repetition (the arrangement /composition);
- 3) in the production and rendering of a final indicative work (sound recording product).

We now document each of these themes in turn while at the same time contextualising the exposition in relation to the aforementioned questions and research training contexts.

8.4.1 First steps: research questions, the literature, and ‘improvisation’

Here we wanted to offer our proposal to the audience in a transparent way, not only in terms of how we spoke about our aims (musical thinking and its outcomes as research), but also via our live improvisations and the easily understood relationships between acoustic guitar and piano. We had earlier exchanged simple recorded ideas to agree upon a concept that would lend itself well to further production, remix and performance as a world music influenced piece. This then was to incorporate the attributes of both what we could *do* as performers and what we might *say* as musicians. For the lay audience, it would seem that *do-ing* might have more to do with many hours of physical practice and/or copying others to playback the results. In terms of *say-ing*, the idea of a research process was considerably more alien, that is: to draw upon and combine our personal influences and ‘aural libraries’ to consider style, genre, instruments, audiences, and technologies as part of what could be described as the ‘lab’ or ‘experimental’ phase of the artistic research just as Huib Schippers writes,

... thousands of deeply considered and split-second decisions are made using music notation or memory ... consulted or remembered recordings in private collection and libraries and performances; learned, acquired and developed values; experience and assessment of audience reactions; and probably most importantly an aural library, which, for a mature musician, would typically consist of 20,000 to 50,000 hours of listening, learning and playing. (2007, 3)

Other intangibles may also come to bear, for example: while intuition, inspiration, interaction, or serendipity may be centrally important they are usually omitted (but in truth, often employed) in many research write-ups which prefer a focus on measurement, statistics and proof of outcome assertions. Still, while proof may display in the artistic ‘products’, the more tacit routes to these achievements are less well understood or documented. To this end, the authors have produced a number of works that examine this further. Some were published as traditional research articles employing ethnographic and phenomenographic methods but which also drew upon software technologies to capture, review and present the in-progress works (Draper 2011). In other cases, early inner musical workings were explored in international conference events to reveal the pathways to realisations of musical outcomes by taking early ideas and interrogating them via a range of live, improvised variations (Cunio 2011).

These examples tend to be in contrast to two atypical profiles aspiring to enter music research programmes in Australia. In the first, a proposal and entry success is based upon earlier qualifications (in this country, mostly via a first class honours thesis) and certainly useful writing skills which take a well-worn approach: literature review, methodology, data and findings. The second cohort do not usually possess research experience and almost exclusively draw upon traditional music qualifications and/or their own professional track record to argue a

proposal. Application numbers continue to grow, as do practice-based research programmes which offer parallel research training as part of a mix of ‘thesis’ and coursework to meet the government funding requirements for higher degree research. Notably, at this institution a performance audition is not yet part of the entry criteria for either pathway. Despite best intentions, the practice-based programmes tend to emulate the traditional model. In the first year leading to defence of the project’s continuation (known as ‘confirmation’ in Australia) many candidates may become confused with a smorgasbord of methodological suggestions from well-meaning theoreticians. They can begin to lose track of the original proposal while becoming fixated on the mimicking of citations from scholars in distant disciplines. Eventually most get through the early milestones and back on track to completion, yet for many educators there is uncertainty in how to effectively scaffold the work of practice-based music research.

To return to the improvisation metaphor, there is much in every musician’s tacit knowledge that might be unveiled, explored and pedagogically celebrated. In an early research proposal, there is usually a vision relating to the candidate’s own music-making, together with their knowledge of others in performance, on record, on the Internet. They follow niggling aspirations for a specialised topic, but the personal quest may simultaneously be very broad in terms of ‘can I do that?’, or ‘how can I do better?’, or ‘do I have something unique to offer?’. In reality, more detailed research features only begin to emerge *over time* and in response to *thinking through making* (Newbury 2010), and importantly – to then authentically make increasing sense to the candidate (and the audience) as new knowledge. Similarly indeterminate elements are also familiar to experienced improvisers, yet in everyday speech and/or many theoretical

disciplines this may convey ‘something that is insufficiently prepared and of no lasting value’ (Peters 2009, 9). However as it has been argued in the work of Schippers (2007) and others, clearly there is much we might draw upon in response to these common characteristics for early artistic research *en route* to developing the formalised outputs that inevitably arise for all music making.

8.4.2 Framing the work: method, design, and ‘composition’

For the next stage of our conference piece (Draper and Cunio 2012) we worked through more of the inner workings – from inspiration and improvisation, to the first stages of formalisation, arrangement of key ideas and the outline of ‘a composition’. In this context it would be fair to say that the computer has not only revolutionised music-making, but all creative endeavours (including that of exegetical writing, versioning, collaboration and dissemination). With music software, early ideas can easily be placed on the page, manipulated, repeated and added to in a fluid way where the actual composition takes place after the recording of the individual parts (Cunio, Ramani, Lee, Beier, Al-freh, Ng, & Cunio, 2009). And so here we showed how the same acoustic guitar and piano improvisations were recorded into a computer, edited, repeated, reflexively structured and composed as a narrative to unfolding musical questions that could have not been asked earlier. Horacio Vaggione elaborates,

... musical processes ... are not situations ‘out there’ waiting to be discovered: they are rather composed (since they did not exist anywhere before being composed), and hence they cannot be considered properly as modelling activities, even if they use – and deeply absorb – models, knowledge, and tools coming from scientific domains ... In fact, music transforms this knowledge and these tools into its own ontological concern: to create specific musical situations (musical ‘states of affairs’). (2001, 54)

As we progressed, we added a drum /percussion groove, a ‘B section’

(chorus) in response to the original ideas, new instrumentation, some improvised vocal melodies, and finally, all overall sketch or ‘tree’ of possible forms – now a detailed proposal with implications for timelines, structure and outcome. At this point, an artistic research methodology began to emerge from such ‘little r’ thinking, but with variations still on offer, still in play.

These points are examined in some of our earlier work. In the case of *Remixing Modernism* (Emmerson and Draper 2011), a double CD was produced to feature interpretations and variations on classical piano repertoire. Alongside this a number of academic publications tracked and analysed the transformation of the music as it spiralled forward (Draper and Emmerson 2009, 2011; Draper 2010). In this it is made clear how musicians draw upon their embodied knowledge to inform both discursive and practical outputs – from one perspective as a concert pianist /musicologist, the other as a record producer /jazz musician. The work responds to the creation of music in multiple contexts to inform critical thought, and in turn, to stimulate new rounds of music making and writing about it. Elsewhere, in *The War on the Critical Edition Volume 1* (Cunio 2010) it is argued that multiple iterations comprise a crucial part of the research evidence, in this case, that sessions on a computer are to composition what revisions are to historical score, what ‘track changes’ are to a text document. The tree of music creation therefore becomes markedly different if the protagonist devises effective processes to document and present these revelations accordingly.

In terms of doctoral projects, many dissertations may have been once presented to offer exactly the opposite logic – that is, as if the questions, methods, and outcomes were designed and conceived at the outset according to ‘big R’ best practice. In reality there may be much to-

ing and fro-ing where the work is highly iterative – questions are revised, methods changed as the data emerges, scope reduced as more findings come to light – all of which is a natural process in harmony with the guidance of good supervision. What is less conventional until only quite recently, is that the authentic ‘messiness’ of practice-based research is displayed in coherent representations of an evolving trajectory. *The Intersection of Improvisation and Composition* (Knight 2011) is one such DMA that clearly brings together many of the artistic research elements discussed thus far. The project scrutinizes the author’s personal development as a jazz musician alongside an historical account of related Australian music practices. This context is then used as a framework to examine a series improvisation and experimentation events that form the raw materials for the author’s on-going compositional and performance outcomes. *The Extended Flautist* (Penny 2009) is another doctoral project that traces such a journey through a discursive musicology, an embodied scholarly encounter of narrative, analysis and performance. Much decision-making and variation on the ‘composition’ of performances is displayed through a series of figures, concept maps, scores and audio-visual recordings in order to thoroughly reveal the emergence of complex methodological design.

Common to these examples is the interplay of thoughtful multimedia artefacts, compelling reflective writing and an overall sense of transformation to display the dynamic nature of *time-based works* essential to the epistemological aims of the authors. There is an evolution of thinking shown to be driven by the music-making and embodied in both text and artworks, and notably presented via a carefully staged portfolio of events and outcomes.

8.4.3 Final stages: presentation, dissemination, and ‘product’

The final stages of our conference workshop (Draper and Cunio 2012) involved the ways in which we considered our preparation for dissemination (another emergent question). Many would have thought this to be via a trajectory of making an album, working with a record company or publisher, or at its most contemporary, by self-publishing a sound recording through an outlet such as Apple’s iTunes store. There was an overarching conception of ‘one composition, one product’. In the 21st century social networking world, there are many opportunities for other than this and so we explored common approaches including: this performance itself as an outcome; the on-going curation of a website around the project; the viral nature of cross-posting documentation and media on other social networks, seed video and audio hosting /embed sites; and the ‘mastering’ of works for multiple formal outlets including via scholarly in-text publication and indeed, on-line commercial music outlets.

There were also two other key points we wanted to explore and believe are salient to the discussion here. The first is in terms of differentiating between the internal, technical aspects of music and the artistic goals that a project may set out to achieve. While the two are essentially interrelated, for performing musicians this may often be difficult to reconcile given their long experience of taking lessons, doing practice, then performing outcomes vs. an often much later conceptual undertaking that may apply to research projects. Henk Borgdorff elaborates,

Art practices are technically mediated practices. Whether this involves the acoustical characteristics of the musical instruments, the physical properties of art materials, the structure of a building or the digital architecture of a virtual installation, art practices and artworks are materially anchored. Artistic practices are technically mediated at a more abstract level of materiality as well. Consider the knowledge of

counterpoint in music, of colour in painting, of editing in filmmaking, or of bodily techniques in dance. (2012, 52).

So, as researchers we need to be clear about technique and artistic aspirations, the latter of which in our experience extends far beyond the *do-ing* of it, to the *say-ing* of it, and importantly – *to whom?* Again, this is taken up by Borgdorff,

[artistic research] does not limit itself to an investigation into material aspects of art or an exploration of the creative process, but pretends to reach further in the transdisciplinary context. Experimental and interpretative research strategies thus transect one another here in an undertaking whose purpose is to articulate the connectedness of art to who we are and where we stand. (2010, 57).

All of which is clear in terms of song writing, performing, recording and audiences – the musician wants to reach out, to communicate something about the world. For example, in *Garden and Cosmos, the Royal Paintings of Jodhpur* (Cunio et al. 2009) creative works were disseminated via performances and CDs in conjunction with liner notes, web publications and other reflections to present a range of insights into a single project while responding to multiple audiences of art *aficionados*, composers and scholars – a criss-crossing of the material to offer artistic research as a reading greater than the sum of its constituent parts. Elsewhere, the Swedish-based Society for Artistic Research hosts its *Research Catalogue* to disseminate ‘little-r’ research, and one such piece (Draper 2012) explores asynchronous Internet collaboration to reveal the creation of number of pieces of music over time, the core data comprising a multi-voice narrative together with emerging music forms. In this online work, each component of the hyperlinked exposition may be read standalone by various audiences (the musician, the lay-academic etc.) or to be digested and woven together as a rich tapestry of insights and products.

Similarly in the doctoral cohort, innovations continue to emerge. The interactive web-based exegesis, *Creating a Virtual Heart* (Webber 2011) allows the reader /user to enter and explore the project via a flexible array of entry points and pathways. In this, through his music-making the author uniquely reaches out to a number of audiences and powerfully comes to terms with themes of mental disorder, creativity and communication. In another active PhD project (Barclay 2012), the candidate presents an account of music making over time together with the documentation of a range of international site-specific projects. The work is transdisciplinary, multi-cultural and multi-exegetical while making extraordinary use of broadcast-quality video documentary components, versions of which are designed for free-to-air television audiences.

8.5 Conclusions

In each of the three components of this exposition we have sought to draw out a number of elements common to our experiences as publishing academics and as supervisors of student research projects. In so doing, patterns and implications have emerged, all of which now inform a synopsis of these materials in order to provide some answers to our original questions, and in turn, to offer suggestions for the evolution of our research training curricula. As it has been revealed, academics and doctoral research graduates are on their way to making a difference in the world of music research and especially as this applies to practicing artists. It is clear that three of our four questions have been answered and will continue to be answered as such artistic research endeavours continue to evolve and flourish. To review these:

- How may musical thinking and artistic outcomes be considered research?

- In what ways might musical artefacts best balance and serve to exemplify this?
- To what degree can the research be understood to be embodied in the artwork?

In all of the examples explored above, international peer review has it that such highly personal musical thinking and its artistic outcomes are indeed research. That portfolio display and/or non-linear representational approaches have been successful, and which make explicit the embodiment of the research in the artwork(s). The commonalities involved would seem to involve a careful crafting of exegetical components through excellent first-person writing skills and associated qualitative research methods, together with capacities to design and display inherent multitasking via interwoven representations of images, words, events, and sounds over time. Improvisation begets a clearer sense of self and while exploring these boundaries, leading to better articulation of an artistic context within its related literature; formalisation and composition leads to structure and method, while dissemination options and products are in keeping with the time-based nature of music as a discipline. What is less clear is how these same elements relate to our existing research training methods and our fourth question:

- How might traditional notions of questions, literature or method be understood?

By using the PhD-by-Composition metaphor to explore this, we believe that important attributes have emerged in relation to the *sequencing* of core elements. Firstly, that some ‘research questions’ develop over time and following of the actual making of the work (Schwab 2012) in highly iterative ways. Similarly for methodology, while this may be emergent it is by no means is less stringent than within other disciplines

once a creative context is established, reviewed, and re-adjusted as required through the lifespan of the project. Given these somewhat inverted analogies to conventional research methods, this then begs a further question as to what might we then consider for our present research training curricula. As outlined earlier, first year training is driven by the necessity to present a defence at a confirmation event designed to assess a proposal according to its articulation of literature review, research methodology, timelines and chapter structure (that is, like a conventional text-based thesis). It is therefore clear that our present early *research* training responds to this milestone while almost entirely excluding any practical *music-making* considerations. It is also clear why university regimes might want to avoid the inference of ‘navel-gazing’, unsupported assertions or simply talking about oneself endlessly. Both extremes are undesirable, just as Gregory Bateson quips, ‘rigor alone is paralytic death, but imagination alone is insanity’ (2002, 7).

Consequently there are indeed plans to restructure our confirmation requirements which aim to provide opportunities for alternative formats and creative components in concert with a re-examination of supporting course content sequencing (and by way of extended logic, to include auditions for practice-based research applicants). Donald Schön’s seminal work *The Reflective Practitioner* (1983) offers perceptive clues as to how this might be conceived for early developmental targets. In this, the notion of repertoire is key:

When a practitioner makes sense of a situation he perceives to be unique, he sees it as something already in his repertoire. To see this site as that one is not to subsume the first under a familiar category or rule. It is to see the unfamiliar, unique situation as both similar to and different from the familiar one, without at first being able to say similar or different with respect to what. The familiar situation functions as a precedent, or a metaphor, or ... an exemplar for the unfamiliar one. (138)

This then might usefully pause the quest for detailed research questions as such an early stage of the process but rather, to clarify the place of the artist within a given disciplinary terrain, and in so doing begin to naturally explore the notion of ‘a literature review’ that may well be a little different to academic norms. While set readings and introductory methods may be appropriate – including by drawing from completion exemplars and/or ECR publications – what has been locally termed a ‘context scan’ (Brown 2011) has resonance for many. In this, candidates expand their ideas of repertoire by exploring the work of others through scores, recordings, performances, interviews and Internet artefacts. It is also key that at this point there should be a focus on reflective writing methods and ‘a voice’, as Alfonso Montuori aspires,

... a voice or voices, that incorporate both subjective and objective, rational and emotional, theory and experience, risk and trust. This makes the task of being [an artist] also a task of self-development, of finding one’s own identity in dialog with and through the world one is studying. Then indeed, our work can become an inquiry into the dialogic and recursive relationship between subject and object, self and other, head and heart, an ongoing invitation to, and navigation of, the paradoxical nature of the creative process. (2003, 253–254).

Post-confirmation we suggest the sensible application of ‘just in time’ pedagogy (Watson and Temkin 2000) like for other professional fields where specific methodologies are bought to bear as required and in terms of fitness for purpose on a per-project basis. At this conservatoire, we might relocate but continue to draw upon an established range of qualitative research training expertise, including for auto-ethnography, action research, phenomenography, narrative enquiry and so on, but where an overall trajectory is customised through the practice itself and the detailed research questions which will emerge *en route*, as Mark Smith elaborates,

... it is here that the full importance of reflection-on-action becomes revealed. As we think and act, questions arise that cannot be answered in the present. The space afforded by recording, supervision and conversation with our peers allows us to approach these. Reflection requires space in the present and the promise of space in the future. (1994, 150)

Our final comments would be in relation to the ever-present use of software technologies in the display of the many portfolio works we have reviewed here. It would seem that the multidimensional representations move beyond the simple binaries of professional practice or scholarly research, but genuinely into a 'third space' as Borgdorff describes,

... a discursive justification of the research will be necessary with the academic discourse in mind, while the artistic findings will have to convince the art world as well ... a third possibility is to express something in and with language which can be understood as a 'verbalization' or 'conceptual mimesis' of the artistic outcome. The concepts, thoughts and utterances 'assemble themselves around the artwork, so that the artwork begins to speak'. In contrast to and interpretation of the artistic work or a reconstruction of the artistic process, the latter option involves an emulation or imitation of, or an illusion to, the non-conceptual content embodied in the art. (2010, 58)

This is a work in progress. In the very first designs of our practice-based programmes, ideas for the nature of portfolios were clear. Opportunities to support and develop technological skills were made available through course work offerings, yet puzzlingly were met with resistance and/or dissatisfaction by candidates. Some saw this as an unnecessary distraction from their musical work (but which in fact more closely resembled PhD theses at the time), others did not appear to understand the potential application of generic tools (taught largely by technology staff). Nonetheless, it is clear that the creative drive will win out (Barclay 2012; Knight 2011; Penny 2009; Webber 2011), sometimes by drawing upon existing skill sets, in other cases once again via a just-in-time approach. Technological support is something we will need to revisit

in the future in terms of course work offerings and/or dedicated associate supervisor support. However, as i-devices, the web and social networks continue to impact on our capacities as ‘pro-sumers’ and media authors it may well be that these concerns recede ever further into the background. In a world that is ever-connected to a clangorous ecology of do-it-yourself content and short term thinking, one can only be positive about the potential for excellent art.

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