5. Conclusion

My Cinema for the Ears: Re-imagining Music Education for the 21st Century

Alex's Story

Alex's[1] work has been a revelation to me. Dark, moody, highly expressive and emotionally charged, his music has that indefinable quality that ensures it stands out and makes you listen. It is entrancing and alluring. It beckons you into new sonic landscapes where imagination and emotion can run free. Being invited into Alex's world is always an education. I look forward to my visits to his studio, to hear about his current projects and to listen to his latest musical ideas.

I met Alex for the first time last year. He was introduced to me by a mutual friend as part of a project on song writing practices that I was conducting. I visited him at his home in a deprived part of South Manchester near Old Trafford, the Manchester United football ground. As I arrived I remembered the words of Stuart Hall, long time radio football commentator - the "Theatre of Dreams" I think he once called it. Strong coffee in hand, Alex leads me down the narrow basement stairs to a large space, partitioned into three areas by bookcases and pieces of equipment.

One space is devoted to recordings, thousands upon thousands of CDs from music styles drawn from far and wide. Here Bach rubs shoulders with Cage, Rachmaninov with Eminen, obscure African songs with German lieder and everything in-between. I feel humbled by the breadth of his knowledge about his massive collection. He draws CD after CD out. "Have you heard of this?" he says, "Or this?" All too often the answer is no. Many of the artists and composers' names are unfamiliar and their music distant from my own listening. But I do recognise the complete set of Sibelius symphonies.

The second space is full of books (and more CDs). Many are philosophical - discussing aspects of musical composition and technology, the kind you would expect to see in a university library. There is fiction here too, and books on other art forms such as film, video art and photography.

The final space is the heart of Alex's creative existence, his theatre of dreams. Cosseted under a small basement skylight, a dark and atmospheric space with a range of ambient lighting, here is the recording studio where his dreams become reality. There is just space for the two of us, and his dog, to settle down. Computers, synthesisers, samplers, a large mixing desk and other pieces of technology old and new surround us. Many of these pieces of equipment are fairly common in other studios. But there is nothing common about Alex's music or the story of how he began to create it.

We start to talk. I suggest we go back to the beginning. I presume that his music education started early? What did he remember about music in his primary school?

[1] The composer's name has been changed at his request. He has read and given his approval for this material to be used here. A short video of Alex working is contained on the accompanying CD.

> I played the xylophone – briefly. I remember the Headmaster having me in the school assembly playing 'God Save the Queen'. After that I just phased out – I was 9 years old. I didn't like the attention from people and I found it too much – the attention of all those faces watching me play that. Since then I've always been very opposed to performing in front of people. I rarely do gigs.

Not the most positive of starts I think, so I quickly move on to high school. Who was his high school music teacher? What did he remember about him or her?

> (- 11 secs silence -) I'm struggling … I remember my history teacher very well. I had burning interest in history so I remember him very well. (- 5 sec -) Music – I mean – what they taught you was Baroque and Bach, Mozart and Beethoven and completely lost on kids. It's such a refined poetry that, you know, these composers who now I spend a lot of money collecting their stuff, is lost on kids.

In fact, it turns out that the whole school thing was not a positive experience for Alex.

> I was excluded from school when I was 15 years old. I'm 29 now and have hindsight on my side. I see points that were causing the trouble. But I also think that there were some elements at school that perhaps did 'fail' me. I think that one of the more important things that the teachers could have done was recognise my passionate nature and harness that, to bring out the best in me rather than put it to one side and be lazy and just exclude me.

But I am still intrigued to know what he makes of his own work. How does he define his unique studio practice? What does he think musical composition is about? What is a musician?

> There are hundreds of examples. But from someone whose has never been taught where the C note is, for me composition starts with John Cage's *Silence* and ends with Rachmaninov. And in-between there's a small child who presses down a couple of notes on the keyboard or piano. They're a musician.
>
> Of course their language is underdeveloped but they have that potential to go from that Cagian silence to Rachmaninov through practice and learning. There's no real defined point – you are a musician.

Finally, Alex speaks in quasi-religious terms about the 'saving power' of music in his life.

> Music is - how can I describe it, it's so many things – it really has saved me from a life that – its hard to explain. I grew up on an estate in Edinburgh and I used to get in quite a lot of trouble. Music saved me from a path that I could see leading to destruction and for that I'm very grateful. So I tend to treat music as a very good friend. It's something that's helped me to communicate with people, to express myself. It's a language that you can relate to people from different nations. It transcends limitations.

Alex encapsulates the problem in formal music education today. He is unable to play a musical instrument in any traditional sense, entirely self-taught as a composer but successful commercially (writing music for television and film), articulate in his views of others' music and consumed by a commitment and passion for his own. Yet here is someone for whom the world of formal music education at best was a total irrelevance (and at worst it failed him completely).

I believe that there is an increasing awareness that music education needs to change. Within the realm of formal music education, which has been the principle concern of this thesis,

things cannot continue the way they have done. Too many pupils are still being isolated and cast aside by models of music education that are elitist and focussed around traditional (i.e. Western) definitions of instrumental performance, notation and composition.

But before I am accused of being too morbid, I am conscious that important steps have been taken to democratise the music curriculum especially in respect of its musical content. Green's work on the inclusion of popular musical styles (Green 1988) has had a big impact and it is now standard practice to find a range of popular music in the Key Stage 3 and 4 curriculum (pupils aged between 11 & 16). Similarly, world musical styles have found a place due to the work done by Robert Kwami and others (Kwami 1989, 1996; Nwezi 1999). But these changes in curriculum content have not been matched by changes in pedagogy (Green 2001, p.184). A similar criticism could be raised relating to the introduction of ICT into the curriculum. Green's recent work (Green 2001) on the informal learning styles of popular musicians deserves wider consideration by teachers and researchers seeking, as it does, to inform the work of those in formal educational contexts. Indeed, her final chapter is entitled 'The Formal and the Informal: Mutual reciprocity or a contradiction in terms?' Within it she seeks to answer some key questions:

> To what extent do the formal and informal spheres of music education and learning exist in isolation from and ignorance of each other? Do the two spheres involve approaches that are irreconcilable, or do they complement each other? If the latter, could they be developed in tandem, without riding roughshod over the nature of either, in ways that would benefit a larger proportion of children and young people? (Green 2001, p.177)

My answers to these questions are yes – to a great extent they are isolated; no – they are not irreconcilable; and yes – they could be developed in tandem. I believe it is the responsibility of every music teacher and teacher educator to consider the steps needed to effect this change and develop these new approaches. It is with these questions in mind that I will conclude this thesis by considering the impact that ICT should have on music education and by identifying avenues for further research activity.

A Technological Revolution?

Alex's story has much to teach us and is a sad testimony to the relevance of Green's questions. I will refer to it at various stages in my concluding thoughts. Firstly, I believe that Alex would not be the composer he is today without his wholehearted embracing of the technological revolution in musical production. But what would a wholehearted embrace of the technological revolution mean for music education? It would not mean a complete scrapping of the content and pedagogy of the current music curriculum. As we have seen, the concept of a discrete electronic or computer music is based on a modernist ideology that seeks to divide these musical styles from all previous or contemporaneous genres.

> Although there are certainly fundamental differences between electronic or digital technologies and acoustic instruments, such differences do not inevitably separate them from the broader continuum of musical expression; only the crudest technological determinism could support the argument that musicians approach these new technologies without bringing with them at least some of their own 'accumulated sensibilities' with regards to music making. (Théberge 1997, p.159)

Similar ideas apply in music education. We do not need to replace what are the many positive teaching strategies and excellent curriculum content that is already in place in our schools. Rather, we need to build on our collective sensibilities and seek to build authentic

models of ICT-mediated music education. Technologies, for Alex, are his musical instruments. He might not be able to play a keyboard or guitar but he can certainly play his Nord Modular (a modular synthesiser) and TR707 drum machine. And, just as with a traditional musician, his choice of instrument is vital factor in the process of musical creation. The characteristics of his instruments, whether they are an electronically generated signal or an audio sample, interact with a variety of musical and extra-musical factors to create his innovative music. They are not a neutral part in the creative process:

> In this sense, musical instruments are not 'completed' at the stage of design and manufacture, but, rather, they are 'made-over' by musicians in the process of making music. (Théberge 1997, p.160)

What Théberge suggests is that the machine is, in a sense, created or recreated by the user in the act of making music. Therefore, if musicians and teachers are 'consumers of technology' (as they are), then 'their ability to define, at least partially, the meaning and use of the technology is an essential assumption and theoretical point of departure' (Théberge 1997, p.160). This is vital for music education. The wider context of teaching and pedagogy all have a part to play in situating new technologies within the classroom and in presenting them as learning environments for pupils. Although we should expect pupils to learn about music in ways that are different to our existing practices, we should not throw the baby out with the bath water. It is not that traditional musical concepts, forms and devices have had their day. Rather, it is a reprioritising and reordering of what is important at any one given moment.

In this technological revolution, does it matter if a pupil cannot tell what the key signature of a piece of music they have created is, or whether or not a particular chord is in root position or first inversion? These could be very contentious issues that music educators disagree about. But they do not really allow the heart of the issue to be addressed. The answer is that it may or may not matter, depending on the wider context of that pupil's work and the development of their creative ideas at that particular moment. It may be useful to them to consider aspects of tonality and key as a way of developing their work. Equally, it might be totally irrelevant to their work and therefore a meaningless distraction.

New technologies can allow pupils to bypass some of these concerns and focus on more direct issues of musical composition and expression. So an essential strand in any technological revolution in music education would be the need to think about the creative functioning of these technologies and how they would best serve redefined pedagogical aims. Uncritical adoption of technologies into the classroom will not effect the change that I am suggesting is needed. They will merely allow for the continuation of things as they are.

Rethinking Curriculum Aims and Challenging Pedagogies

Secondly, Alex's experience of the formal music curriculum was completely alien to his natural musical abilities and inquisitive creative spirit. It failed to engage his emotion or his mind and left him to his own devices. Many pupils with less passion and commitment would have given up at this point and turned elsewhere.

As teachers, our beliefs, desires and aspirations about what is important in music education are a key factor in determining our uses of ICT to fulfil those aims. For example, introducing Year 7 pupils to sound processing was driven by my belief that a more

deliberately hands-on, sonic approach to composition could be of tremendous educational value for all pupils, and in particular increase access to the music curriculum for a number of pupils who I felt had been disempowered by it.

In developing uses of technology in the classroom, we need to give careful consideration to our definition of educational aims. The increased use of learning objectives or outcomes has dominated recent educational reforms in the United Kingdom. The clear definition of what the pupils will learn, by the teacher in their advance planning for a lesson, is now seen as a vital, unquestionable and integral part of their preparation.

For teachers of arts subjects this has always been problematic. At a basic level, prescribing the outcomes of an artistic activity takes away its sense of discovery and creation. Pupils, in my experience, quickly realise that their supposedly artistic activities follow a predetermined pathway and seek to conform appropriately. For Eisner (1985, p.29), educational objectives:

- Provide a goal towards which the curriculum is aimed;
- Facilitate the selection and organisation of curriculum content;
- When specified in behavioural and content terms make it possible to evaluate the outcomes of the curriculum.

But he is quick to point out that they have their limitations. These are numerous and too lengthy to discuss in detail. But I would like to briefly mention a couple here. He suggests that the assumption behind educational objectives is that it is possible to predict with a fair degree of accuracy what the outcomes of teaching might be. This is commonsense and seems to be true. However, the outcomes of educational processes are far too numerous and complex for educational objectives to encompass them all. The teacher is required to make a selection as to which they feel is of primary important in any one given lesson. But:

> In the very process of teaching and discussing, unexpected opportunities emerge for making a valuable point, for demonstrating an interesting idea, and for teaching a significant concept. ... The dynamic and complex process of instruction yields outcomes far too numerous to be specified in behavioural and content terms in advance. (Eisner 1985, p.32)

Additionally, educational objectives fail to recognise the constraints various subject matters place upon them. He comments that in some subjects one can specify with a greater degree of precision the particular operation or behaviour one is seeking a pupil to demonstrate. Within the arts this may not be possible or desirable:

> In the arts and in subject matters where, for example, novel or creative responses are desired, the particular behaviours to be developed cannot easily be identified. Here curriculum and instruction should yield behaviours or products which are unpredictable. The end achieved ought to be something of a surprise to both teacher and pupil. (Eisner 1985, p.33)

One might consider how often music teachers and pupils feel this element of surprise? My observations of composers working in studios around the country have confirmed that much creative compositional work with new technologies is not predictive or easily defined through simple learning statements. In many cases musical compositions with ICT are nurtured and developed through a process of germinating ideas, trial and error, choosing from multiple compositional possibilities and pathways. None of these are easy to prescribe in advance.

In light of this, it seems that the pedagogy of music education with ICT needs a radical overhaul. Throughout this thesis I have begun to imagine what such a pedagogy might look like. Like Eisner, I share a view of curriculum construction as being an 'artful task' in itself (1985, p.36) and one that is amenable to an infinite number of combinations. His notion of expressive outcomes rather than expressive objectives seems eminently sensible and typically well considered. Expressive outcomes are 'the outcomes that students realise in the course of a curriculum activity, whether or not they are the particular outcomes sought' (Eisner 2002, p.161). I have my doubts as to whether this would be politically acceptable in the current climate of secondary education in the United Kingdom. But, linked as they are to Stake's notion of 'responsive evaluation' (Stake 1974), I believe they represent a fertile path for future research into the planning and design of curriculum uses of ICT in music education. They are certainly an approach that I have found productive in this piece of research.

Resituating Music Education in the Digital Arts

Thirdly, Alex's work teaches me that a creative use of new technologies can resituate musical practices within the world of the digital arts. This could be a dramatic step for the often conservative practices of music education in the United Kingdom. But I am not suggesting whole scale changes here, rather an acknowledgement within curriculum planning that a cross arts or multimedia approach to composition may well engage and motivate pupils more successfully, as well as facilitate the development of their creative skills.

One of the main themes of this thesis has been the interplay between aural and visual work, in particular that each associated 'discipline' can be used to reinforce the thinking, creative ideas, potential and understanding of the other and beyond to other parts of the curriculum. Waters, in a helpful exploration of this theme, identifies the crux of the problem:

> New technologies form a seductive meeting point for many previously separate arts practices. The generally uncritical acceptance of new tools, for example, the profusion of synthesisers in music classrooms, as a convenient means to the continuation of old concepts, and the often exaggerated claims made for the technology itself, have tended to mask some of the more useful implications of the new technologies. (Waters 1994, p.28)

There is an urgent need to rethink arts education with technology to facilitate more of this cross-disciplinary interchange. It is a feature of many professional artists' work in the 'real' world and something that pupils will pick up on quite naturally. This happened within the *Dunwich Revisited* case study (quite by accident) and became a formal feature in the *Reflecting Others* case study. The development and highlighting of these creative processes with ICT, and the following evaluation and reflection of these through an appropriate case study design, have been integral to furthering pupils' relationship with their own and others' work and, consequently, to my understanding of their learning with ICT.

So I believe that the effective use of ICT can bridge the gap between what are often disparate artistic practices within schools. At a practical level this is obvious in the increasing similarity of control mechanisms within various pieces of software. Conceptually, this requires new and radical redefinitions of a subject's culture and working practices, as well as a consideration of how these may relate to other parts of the curriculum. Francis Dhomont, the French electroacoustic music composer, summed it up like this:

> We have more in common with the filmmaker or the sculptor, the painter, with the plastic artist, than with the traditional musician. I really have that feeling, even though my origins are in traditional music. (Dhomont 2002)

New technologies radically transform 'the arts' in ways that many teachers find hard to understand and appreciate primarily because their focus is on the continuation of 'old concepts' of technological use (Waters 1994, p.28). I would agree with recent research evidence from ImpaCT2 that it is a worthy goal to integrate ICT with subject learning (DfES 2002, p.3). However, within these case studies there has been an exploration of exciting new notions of artistic practice that integrate rich mixes of subject learning (and culture) within ICT. I perceive this as being a slightly different yet promising road of enquiry that leads to a holistic model of artistic practice *mediated through* the effective use of ICT rather that traditional or pre-existing artistic practice merely done *with* ICT.

Working at the Fringes of Music Education

As I review the work I have completed over the past six years of this research, I can remember key moments of intense excitement and interest that have kept the momentum of my work going and my energy levels high. Top of the list would be those magical moments in the classroom when an individual or a group of pupils' work speaks wonderfully and directly to the assembled class. These are moments when, however brief, all can feel the power of music without need of explanation or description. Similarly, I will never forget the beautiful expressions and heartfelt words of pupils immediately after the performance of *Dunwich Revisited* on the stage of the concert hall at Snape Maltings. Set against this are my memories of quietly watching the work of numerous composers throughout East Anglia and the north west of England. I felt privileged to share in their private worlds of musical creation and performance.

Alongside these pedagogical and musical experiences, key authors and texts have challenged my mind and empowered my thinking. Of the many authors that I have read and whose thoughts I have considered, the writings of two people (in addition to my supervisor) have shaped my ideas and teaching practice to a greater extent than any others. Firstly, I have been fortunate to work alongside Bridget Somekh during this final year of my research project. She has been instrumental in facilitating my ability to reflect more deeply on these case study materials. But I have felt her influence much early that this. Her key text (Somekh & Davis 1997) gave me the determination, strength and commitment to work as a teacher researcher investigating the use of ICT in music education through action research.

Secondly, and through a rather strange series of events, in late 1997 I found myself waiting outside the office of Saville Kushner within the UEA's Centre for Applied Research in Education. Meeting Saville Kushner was a baptism of fire! I found it hard to keep up with his ideas. I tried writing them down and then recording our conversations on a portable tape player. Either way, it would take me weeks to think through the implications of our discussions. I found him stimulating, occasionally frustrating and always enigmatic. But due to his departure from the University of East Anglia midway through my research, it is primarily through his publications that I have come to know and understand his work. One particular piece of writing has been a constant challenge, drawing me back to its ideas with a strong magnetism over the past four years. Given as a keynote address at the 1999 Research in Music Education conference at the University of Exeter, his 'Fringe Benefits: Music Education out of the National Curriculum' contains typically provocative prose. Yet

within it, I have found a strange justification for key aspects of my work. At various points within my thesis I have wanted to discuss its ideas but have held back. I suppose I have been concerned as to how they might have been read. I was worried about being misunderstood.

But given the above account of Alex's story, I find myself with a new confidence. Alex has inspired me to believe that the changes one can bring about in music education through the creative use of ICT are possible. Alex's path towards the fulfilment of his dreams was hard. The system put many obstacles in his way. Formality and orthodoxy were, at times, his invincible opponents. Yet his creative spirit won through. At 29 he believes in himself as a musician and is still moving onwards down his road of discovery.

The road ahead for music education is also uncertain and, one suspects, hard. Kushner, like Green, urges me to look outside the classroom to a world of music beyond the school boundaries. It is here that one can see changes afoot:

> Look again at the practical context of music education. Increasingly it is fed by music knowledge generated beyond the school boundaries – in fact, on the fringes of formal curriculum. … The boundaries of education spread far wider than those physical boundaries of the school. Correspondingly, the knowledge base of music is changing, and is changing music education, while the music curriculum itself if frozen in legal aspic. (Kushner 1999, pp.213-214)

What is our response to be? Here Kushner is at his most challenging. It is only by deliberately seeking a hiding place, a place of refuge and marginalisation that one will begin to discover the true benefits of music education:

> The opportunity can only be realised by slipping out of the mainstream and finding a site of minimal scrutiny. It requires a degree of curriculum marginalisation – playing at the fringe. (Kushner 1999, p.215)

Debenham High School provided that place of marginalisation for me, a place to play and experiment with music education on the fringes. Key writers and thinkers have assisted me with the methodologies that I required to navigate my way through this unfamiliar territory. I am very grateful for their time and ideas. Some of the results of this journey are within this thesis.

I am not certain about the exact shape and future of music education within our schools here in the United Kingdom. Music education across the country needs a revolution. The effective use of ICT as a creative tool has a major part to play in this. It demands a 'significant reconstruction' of subject content and pedagogy that may be a step too far for some (Bonnett, McFarlane & Williams 1999, p.357). I am convinced that ICT can assist pupils in breaking out of the restrictive worlds of traditionalism and cultural or historical monolinguism, promoting a truly imaginative work that transcends their own culture, facilitates their ability to critically reflect and become truly creative. But I also believe that the effectiveness of any technological innovation depends above anything else on the quality of the teacher. Incorporating technologies within the classroom by themselves will achieve little of real and lasting educational worth. More teachers need to actively seek a site of 'minimal scrutiny' and find out what it is that is fundamentally important about a pupil's music education and how best to facilitate it. Technology has a part to play, but ultimately education is about people and their relationships. And I should not be too

despondent. I am trusting Kushner that 'wildernesses are for rebirths too' (Kushner 1999, p.218).

5.6. Epilogue

The aim of my research (see 1.5) was:

'to analyse and evaluate the use of ICT as a way to develop new approaches to music education'.

This aim broke down into a number of specific research questions:

1. *What impact does ICT have on the ways that pupils learn about music, particularly composition?*
2. *How does the incorporation of ICT into the classroom affect our pedagogy?*
3. *How can teachers develop a model of teaching and research that allows them a greater clarity of insight into the teaching and learning of music with ICT?*

I believe that this research has demonstrated that through embracing an alternative vision for the use of ICT in music education that a greater number of my pupils were empowered to produce music in new ways than was previously the case. I am wary of generalising these findings to other schools and other teachers. And I do not want to be accused of beating anyone with an 'ICT is the answer to all your problems' stick. But in this epilogue I hope to summarise briefly my challenge to others involved in teaching, research and teacher education.

Firstly, teachers need to expand their vision of what ICT is, what it can do and how it can be used as a tool to create a more inclusive music curriculum fit for the 21st century. They will need to:

1. Be ready to embrace change and respond to the new challenges of ICT;
2. Actively seek to learn from other artists and composers who are making innovative uses of ICT already;
3. Be wary of the trap of creating alternative 'educational' cultures of musical ICT that bear little resemblance to what might be conceived as authentic artistic practice;
4. Reconsider curriculum aims and objectives and how they should respond to the changing nature of the classroom environment when ICT is used in the ways suggested throughout this thesis;
5. Respond to the natural pull of these technologies towards the digital arts (Sefton-Green 1999). They should be urged and facilitated to make links across the arts with a naturalness and technological awareness that is seldom evident in our schools today.

Politically, of course, there are issues surrounding each of these areas that this thesis has not sought to address. But I remained convinced that teachers need more time, space and appropriately differentiated systems of support in order to make progress in these crucial areas.

Secondly, I believe that this research shows that those of us involved in educational research should remember that teachers are in the best place to examine and reflect on approaches towards educational change. The years that I spent working as a teacher

researcher were amongst the most exciting and challenging of my PhD research. The methodologies of case study and action research provided me with the tools I needed to give an account of events in my classroom and think through issues that facilitated change in my own practice and provided the opportunities for my pupils' learning. I believe that they have proved particularly useful in respect of giving an account of ICT in the classroom environment. I will seek to extend this work through my current position as a teacher educator with increased consideration of Walker's multimedia case study (Walker 2002) and Wertsch's mediated action (Wertsch 1998).

Thirdly, as a teacher educator I believe that this research highlights the crucial role that we have to play in preparing our trainee teachers for full, satisfying and enriching careers as teachers. It clearly shows that a practical knowledge of use of ICT, together with a clear grounding in its application to educational contexts, is crucial for those training to work in music education at this time. It also shows that teaching and research can be usefully combined early in a teacher's career as a way of developing an increased sensibility to pupils and their learning, the organisation and development of interesting curricula and the integration of reflective practice as a key for educational change.

Ultimately, my research aim and questions were formulated and reformulated throughout the period of my research. This thesis has attempted to give a flavour of this research activity and is, I believe, an accurate reflection of my work as a teacher, researcher and teacher educator. I remained convinced that ICT, composition and practitioner-based research should be at the heart of music education and that there still an increasing need for debate amongst practitioners at a deeper level about each of these areas.

But I would like to end my thesis by celebrating the work of my pupils throughout the various case studies described here. They approached the use of ICT, the increasing emphasis of composition in their music education and my often-whacky ideas with naturalness, good humour and inquisitiveness. I am sure that they were often long-suffering too, but I hope that Lachlan Young's words rang true in our experiments and experiences together, and that they will continue to ring true in their future musical lives:

Ears become wired
And minds become strong because
You're speaking the language
The language of music
The door is now open
To learn how to speak.

Murray Lachlan Young
(Found Sound CDROM, 2003)[2]

[2] The complete poem from which these words are taken is included on the accompanying CD. It should play automatically when readers insert the CD into a computer and open the index.html file from their normal web browser.