

Dunwich Revisited: collaborative composition and performance with new technologies

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Dunwich Revisited was a curriculum-based music project run at Debenham CEVC High School between December 1999 and March 2000. All pupils in Years 7, 8 and 9, together with a Year 10 GCSE group, participated in the composition of an electroacoustic piece based on Dunwich (a place with a remarkable history on the east coast of Suffolk). A distinctive feature of the project was the use of a range of technologies to compose, develop and perform musical ideas. The final piece was performed by thirty-five pupils at the Celebration of Schools' Music held at Snape Maltings Concert Hall on 7 March 2000.

This article shares insights from this curriculum project drawn from a range of qualitative data collected by Jonathan Savage, the Head of Music, and Mike Challis, an electroacoustic composer who is also a member of the school staff. These insights are placed within the context of other recent research evidence describing the relationships between composition, performance and listening as prescribed in the English National Curriculum for music. The article considers how these technologies, some old and some new, can have an impact on music teaching and learning in the classroom environment.

Introduction

Instead of expressing someone else's music, you are expressing your own. If you were playing Beethoven's music you would be expressing his music and not your own. So with this you can express more of your own feelings about the subject rather than somebody else's.

A new world is coming
And we don't know
Just where we're going next.

The old world is gone
And never to be found.
The past is in the past.

So say your prayers and say goodbye,
Say goodbye.

(Year 8 girls)

This article shares ideas, images, thoughts and judgements about a curriculum project that took place during January to March 2000 at Debenham CEVC High School. Through a description of the project and a sharing of evaluation material, the writers hope to be able to paint a picture of the events that took place within the classroom sessions, the extra-curricular rehearsals and, finally, on the concert hall stage. The article is based on data

drawn from an explicitly qualitative approach to evaluating educational events. It is an approach that the writers believe is particularly appropriate when considering the complex interactions that occur between pupils, teachers and technologies within the classroom environment (Savage, 1999; Somekh, 1997).

The Dunwich Revisited Project was carried out at a time when the United Kingdom government was encouraging teachers to use information and communication technologies (ICT) to a greater extent as part of their normal teaching practice. The writers felt that within the field of music education there was considerable scope for the development and implementation of more innovative uses of ICT to enhance teaching and learning in music. A foundational aim of the project was an attempt to demonstrate the empowering and facilitating nature these new technologies can have for *all* pupils when used imaginatively and constructively in the classroom. Through a consideration of the ways in which postgraduate electroacoustic composers use and abuse various technologies as part of their working practices, the writers designed an innovative curriculum project that drew on their observations and personal experiences of compositional practice with technologies.

The project was also an attempt to address a number of current issues and publications within the field of music education research in the United Kingdom. Not least amongst these was the publication of a new National Curriculum for Music in 1999 (DfEE, 1999). This publication shared, with its previous version, a belief that music education should develop musical understanding through a tripartite model of composition, performance and listening/appraising. Its publication, however, coincided with a questioning of the validity of such a model by some of the leading figures involved in music education research.

It is widely believed that composing, performing and audience-listening should all be included in the school music curriculum and they are somehow interactive. However, little systematic work has been done to support this belief and the nature of any interaction amongst the activities is by no means clear. (Swanwick & Franca 1999: 5)

Swanwick and Franca go on to explore the relationships between these foundational areas in the National Curriculum in considerable detail. The writers will draw on a number of their observations in the concluding part of this article. One of the aims of the Dunwich Revisited Project was to explore and clarify the ways in which music technologies might impact and develop aspects of each of these areas within 'normal' classroom practice.

Description

A brief history of Dunwich

Situated on the east coast of Suffolk, the city of Dunwich has had a rich and interesting history. During the early part of the second millennium, it became a major port enjoying considerable wealth and prosperity. But due to the changing coastline, the emergence of a new river mouth further up the coast, and the silting up of its port, Dunwich lost its place as the premier port on the east coast. Its source of prosperity was removed and the city itself eroded. During the next few hundred years most of the city was subsumed by the sea. Early last century All Saint's Church, at one time the largest church in Dunwich, gradually fell

from the top of the cliffs into the sea. Photographs of this event taken over a period of time provided a major stimulus for the project.

The story of Dunwich has become a rich source of inspiration for poets, artists and composers. In 1989, Mike Challis was asked to compose a piece of music to accompany a dance, *States of Sea*, to be performed by Splinters Youth Dance Group at Snape Maltings Concert Hall. Through its ternary shape, *Dunwich* represents the changing landscape of Dunwich. The opening section depicts the natural environment of the place that became Dunwich. The second section describes the conquering of the natural forces of the environment and human activity (through two medieval-like dance melodies). The final section portrays the powerful natural elements reclaiming and overcoming these human interactions (in a return to the opening music).

A curriculum inspired by Dunwich

Dunwich became a focus for a composition project involving the whole of Years 7, 8 and 9. Pupils were introduced to the place of Dunwich and its history before listening to the piece. They were asked to make a series of responses to this music, considering the mood, atmosphere and emotion of its various sections. Each class' response formed part of a large wall display which later became a focus for an exchange of ideas and starting points. Pupils were then asked to spend time considering what type of sounds they might want to include in their own musical interpretation of Dunwich's history. They were encouraged to think of sounds that could be produced through using conventional instruments, voices, various technologies, or by selecting samples of environmental sounds which could be brought into their piece.

Subsequent lessons involved pupils choosing ideas from these sheets and producing short sound ideas. Pupils made these short sound ideas using a variety of technologies. The primary method was the use of a microphone connected to a simple sound processor/monitor set-up. Pupils experimented with various instrumental or vocal sound sources applying different types of effect to create the desired mood and atmosphere. Other pupils recorded environmental sounds on a portable MiniDisc player. These sounds were then imported into a computer running a digital audio mixing programme (ProTools) before being edited using different pieces of computer software such as SoundHack, SoundEffects and Metasynth. All of these sound ideas were collected on the MiniDisc player and carefully labelled in preparation for the next stage of the project. These sound ideas would eventually form the sonic material for pupils' own Dunwich pieces.

As well as the individual class pieces, an open session was held during lunchtime to select sound ideas for a whole school performance piece. This piece would be played at Snape Maltings Concert Hall as part of the annual Suffolk Celebration of Schools' Music. All pupils were invited to come and hear each of the short sound ideas. Using a series of simple star ratings, the forty-five pupils who volunteered voted on which sounds they considered the most imaginative and appropriate for inclusion in this final piece. Out of 108 short sound ideas, fifteen received five or more three-star votes. These sounds were to become the principal sonic material for the live performance piece. A group of thirty-five pupils, some volunteers and some selected, were to play in this performance and rehearsals began as an extra-curricular activity.

After the democratic selection of the various sound ideas to be included in the piece, lunchtime rehearsals enabled the sections of the piece to be assembled. Work on the instrumental and vocal parts was carried out at the same time as the assembly of computer-generated sounds and the DJ elements of the piece. The ternary structure of the original *Dunwich* piece was used, with particular attention being paid to the transition points between sections.

Two mornings were set aside for full rehearsals. These consisted of one hour for technical set up and then two hours of rehearsal and performance. The second rehearsal was on the day of the performance so all leads and inputs could be labelled and the entire set-up checked before leaving school. Pupils were made responsible for their part of the set-up to ease reassembly and disassembly at the concert hall. Careful consideration of the technical set-up was vital to ensure that technical hitches did not hold up the performance itself. By labelling and rehearsing this part of the technical set-up we were able to set up and perform the ten minute piece twice within the forty-minute rehearsal slot at the concert hall.

Meanwhile, in the remaining class sessions, pupils were placed in different groups to share their various sound ideas. Each group composed their own *Dunwich* piece using a selection of technologies, conventional instruments and voices. Using a series of compositional metaphors (Savage, 2000) displayed on a specially constructed wall display, pupils focused on the idea of transition points combining the sound ideas into the larger ternary structures. Pupils were challenged to make the musical content of each section as original as possible.

Analysis

Composition with new technologies

This project adopted an approach to composition with technologies that placed the focus firmly on the compositional act rather than any particular technological skills. As part of the project, pupils were introduced to a variety of new technologies. The sound (or signal) processors proved a particularly successful tool. Pupils were able to capture electronically a variety of instrumental or vocally produced sounds, manipulating and changing the sound through a variety of effects. These processors proved to be a simple and effective way of opening up a new world of sounds for the pupils. The processors analogue-like dials encouraged a free, improvisatory-type approach to the production and manipulation of sounds. In a relatively short amount of time, pupils were able to generate sounds that they felt reflected the initial stimulus which they had chosen.

Pupils were quick to identify the impact that these technologies were having on their music-making. They commented throughout the project on the range of sound and effects that the sound processors provided.

The processor added sound, echo, character and depth to the piece. (Girl, Year 10)

In discussions with pupils throughout the project this theme kept recurring. Un-effected sounds were often characterised as 'plain' and 'lifeless'; effected sounds 'make it sound eerie and adds a kind of feeling and depth to it' (Girl, Year 8). The sound processors

opened up a new, wider palette of sounds to the pupils. Through their exploration and improvisation with this technology, pupils were able to find sounds that they felt represented accurately their feelings for the place of Dunwich. As teachers, it amazed us how easily and quickly this process occurred. For example, a song (complete with lyrics – parts of which are quoted at the opening of the article, melody and ideas for accompanying instruments and sounds) was composed within thirty minutes by a group of Year 8 girls (CD track 1, 4:10).

I think they [the technologies] did add to the making because they added the feeling that this piece was very unique, that it wasn't an ordinary piece being played by ordinary instruments in the correct way. (Girl, Year 10)

This pupil emphasises that through the use of new technologies, her assumptions relating to what is an acceptable, or an unacceptable, use of musical instruments can be challenged. New approaches to playing instruments, new ways of manipulating sounds in real time, the inclusion of environmental sounds were, for this pupil, all part of a new means of expression. For her, the innovative uses of technology facilitated this new model of musical practice and composition. With imaginative application they generated a new vision and awareness in her mind, empowering her to create and perform expressively and emotionally. Consider the following comments:

It showed how technology can change the atmosphere. (Girl, Year 8)

The music technologies made the piece easier to perform. (Boy, Year 10)

The technologies made the piece very moving. They added meaning to it, in a strange way. (Girl, Year 8)

It was particularly noticeable that pupils relied on sound processors to a greater extent when experimenting and 'doodling' (as one Year 10 pupil put it) with sound ideas. The liberating effects of pupils using a microphone in vocal work had been noticed in earlier research. Within this project, some pupils discussed the ways in which using a microphone depersonalised or detached them from a sound's creation. In this compositional process, the sound processors played a key role in enabling pupils to use their voices in an uninhibited and expressive way to generate sound ideas.

This 'experimentation' and 'doodling' focus occasionally ran into problems. For example, Year 10 pupils were encouraged to use an innovative piece of sound manipulation software. It soon became apparent that the software was an amazing and powerful tool, but that it would require a significant amount of structured, teacher-led time for pupils to learn to harness its creative potential. Within the strict deadlines of this project, it proved impossible for pupils to complete the steep learning curve required to use the software effectively.

By contrast, another powerful piece of software (ProTools) was easily used by a number of pupils. ProTools is a piece of software designed for professional studio use. In this setting it allowed pupils to structure and combine audio files in a way similar to that of a traditional multi-track tape recorder. The simplicity of the software's interface enabled pupils to construct whole pieces very quickly. For example, two Year 9 boys spent time using this software to construct their own version of a Dunwich piece. Within two hours

they had learnt to record sounds directly on to a ProTools track via a sound processor and MiniDisc player, cut and paste these sounds, import audio into ProTools from elsewhere on the computer hard-disk, digitally fade sounds together from various tracks and use a number of other digital sound editing programmes to manipulate the samples they had chosen. All of this was accomplished within the Apple Macintosh operating system with which they had minimal experience, but whose simplicity of operation encouraged them to concentrate on the creative tasks rather than hinder them with technical difficulties. The switch from the predominantly PC-based school environment that the pupils were used to was a minor issue. They adapted easily to the slightly different conventions.

None of the technologies used in the project was designed specifically for educational use. It soon became clear that certain technologies are more appropriate than others for use in the classroom context. Some technologies needed to be doctored or prepared in a certain way for pupil to use within the hectic classroom environment. For example, sound processor units were mounted within aluminium camera cases together with powered monitors, microphones, connection and extension leads (Savage, 2000). Specially designed sound processor unit setting sheets were used to enable pupils to record their settings and to re-create an effect easily at a later date. The use of four identical sound processors within the classroom and performance settings was particularly helpful.

In contrast, the MiniDisc player was an example of a piece of technology that pupils could use easily and effectively straight out of the box. Recordings of early ideas were kept on MiniDisc to ensure that they were remembered, revisited and re-created. The random access, editing and labelling features facilitated the recording and presentation of the 108 sound ideas without the need for radical re-editing at a later stage. The portability of the MiniDisc player encouraged pupils to use recording as an integrated part of the compositional process, rather than just a mere documentation of completed ideas.

One Year 9 pupil had considerable experience as a DJ. He played one of the two sections that made up the middle of the piece (CD track 1, 5:50). By using two CD players with variable pitch controls and a basic mixer, he remixed existing material (which had been prerecorded on to a CD) to create a modern sounding dance track. Another pupil used the CD/mixer set-up to add sounds created in the studio to the live mix on stage during the other sections of the piece. Due to technical and time limitations, and the sheer number of live players involved, this insertion of samples was minimal and subtle. It is an area that could be expanded greatly in future projects.

It was not surprising that many pupils found this the most exciting part of the piece. This section of the music was most closely related to the music they were familiar with:

I liked his music, because it's more related to the music I like and has a good beat. *The music of today!* (Girl, Year 8)

Other pupils commented on the broad range of contrasts in the piece:

The mixing made the piece a lot more lively and contrasting. People would be feeling relaxed from the first half and when his bit starts it wakes them up, livens the piece up! A good contrast. (Girl, Year 10)

I really liked the end of the sad singing and the gradual change into his dance mix. It really brought the music alive. (Girl, Year 10)

Feelings of ownership

This project used the very modern concept of the re-mix, where an original composition (*Dunwich*) is taken and elements of it incorporated into a new composition (*Dunwich Revisited*). A re-mix can, at its most basic level, just mean the addition of new musical elements, e.g. a strong beat. But it can involve a completely radical reinterpretation of the work. *Dunwich Revisited* was a totally new interpretation of the original stimulus and, therefore, a new piece in its own right. The pupils were given the original inspirational material and then recomposed elements of the piece. They used the original framework of *Dunwich* to structure these new ideas. The structuring of each section was flexible enough for individuals to improvise melodically and rhythmically within it. This undoubtedly helped pupils to feel that this music was their own:

When you play and make it as you like, you feel that you can express yourself more. (Girl Year 8)

A key feature of the project was the democratic selection of sound ideas from the 108 ideas created by lower school classes. During the subsequent rehearsal periods, the pupils who had created these sounds (together with some other pupils drafted in to strengthen particular parts) were encouraged by the project leaders to manipulate and combine these sounds ideas in various ways. A central idea in the project was to give pupils' collective autonomy over the selection, manipulation and combination of sounds within the performance group. Therefore, it was encouraging to note in subsequent evaluations that pupils felt strong ownership of the piece that resulted.

I felt that the piece did belong to us because we (the pupils) had come up with the way of playing the instruments, the song, how it came together. Although we got the initial idea from Mr Challis, we expanded on his ideas and turned them into our own. (Girl, Year 10)

Yes, it was definitely OUR piece and I think everyone thought that about it. (Girl, Year 9)

The pupils realised the formative influence of Mike Challis's ideas, but recognised their own creative input and were able to comment strongly about the nature of their finished piece. The project seemed to strike an appropriate balance between a predetermined, teacher-imposed framework and the need for a freedom that the pupils' could exploit when creating, expressing and combining their compositional ideas.

Feelings of originality

Linked with this strong feeling of ownership was a sense of the piece's originality. Despite the strong links of initial stimulus and structure, pupils felt that the piece was a strong expression of their own emotions and feelings for the place of Dunwich:

Everyone had the chance to contribute. The piece was different and individual. We composed it and no one had heard it before. (Girl, Year 8)

I liked how original and contemporary it is. I mean, there is no other piece quite like it and you could never play the exact same piece again. (Girl, Year 9)

The cohesive mixing of media – of dance, art, music as well as new technologies – during the composition and rehearsal stages was an important part of the piece's originality. These multi-media elements were also part of the originality of the final presentation. Alongside the musicians and singers a collage was assembled, piece by piece, as the composition unfolded. During the contemporary dance track and mixing section of the piece pupils were concerned that the presentation lacked visual impact. They were quick to suggest the inclusion of dance which, as they commented, 'added an extra ingredient to the piece; it made the piece stand out and made the audience look up and think of the three Dunwich stages shown' (Girl, Year 9). Pupils were also quick to ascribe a meaning to such an activity:

It brought the mixing alive and represented fun and enjoyment during the daytime in Dunwich. (Girl, Year 8)

The dancers represented human activity and life, whereas the first and last sections represented nature on its own. (Girl, Year 10)

Conclusions

In their evaluation of the Dunwich Revisited Project, the authors have drawn on two recent articles that inform and develop particular aspects of their work. Swanwick and Franca's study (1999) examines the relationship between composition, performance and audience-listening. The Dunwich Revisited Project was unashamedly founded on the assumption that composition tasks should be at the centre of the music curriculum at Key Stage 3. The use of various technologies throughout the project had a clear impact on the pupils' work in two main ways:

- in giving them access to a range of sound ideas.
- in empowering them with a means of expressing these ideas that did not rely on a traditional grounding in instrumental skills. It was particularly pleasing to note that a significant number of pupils who performed in the final concert piece at Snape Maltings were not those who normally perform in musical events in the school.

In relationship to performance skills, Swanwick and Franca highlight a dilemma in the process by which teachers can assess their pupils' musical understanding. They suggest that should 'pupils be assessed only through their instrumental performance, the extent of their understanding of music would be seriously underestimated'. In contrast:

Just the opposite happened in the composition. Students were able to demonstrate understanding of musical form through their compositions even producing idiomatic, quite stylised pieces. (Swanwick & Franca 1999: 13)

A recent study of musical composition in the classroom asks the fundamental question, 'What is good practice in the teaching of composition?' (NAME 2000: 6) From the range of opinions, case studies and arguments presented within this publication, it seems clear that any answer is far from simple and clear. A multiplicity of approaches and methods exist, and this is probably the best state of affairs. The results of this project demonstrate that in taking on the task of teaching composition one is concerned with a range of cognitive,

physical and social issues far beyond those principally concerned with instrumental practice. The ways in which new technologies relate and function between musical practice (whether it be performance, composition or appraising) and these wider educational issues are fascinating, intricate and worthy of further research. Through focusing on the development of compositional skills, this project demonstrated that the creative use of appropriate technologies can facilitate pupils' musical understanding and provided an enhanced means for its expression.

In reflection, it seems clear that a number of other aspects of the project were central to its success. The ways of working that pupils adopted when composing with the various technologies represented a significant change from what might be called 'notation-based' compositional tasks. This encouraged a greater sense of freedom both in composition and performance. Whilst pupils adopted a variety of notational devices to keep track of their work from week to week (through task sheets, diagrams, etc.), little, if any, use was made of staff notation as a composing or performing device. Even those performers playing the more conventional parts in the final performance 'improvised' within the structures they had decided to adopt.

This research provides evidence that the activity of composition, as constructed in this project, gave pupils the chance to engage deeply in imaginative play. The structure of the project gave pupils collective autonomy in the decision-making processes relating to musical content and, to a lesser extent, form. It allowed them the opportunity to develop more sophisticated musical thinking. In this respect, the project confirms the findings of Swanwick and Franca:

It is composition that allows more breadth for decision-making over a much wider range and thus is particularly powerful in facilitating the development of musical understanding.

If pupils are not working at a level where they can exercise judgement and take decisions, how can they be developing a more sophisticated quality of musical thinking? How can students develop a higher level of musical understanding if they are not given the opportunity to work or 'function' at that level? (Swanwick & Franca 1999: 17)

The uses of different technologies in the project empowered the majority of pupils. They provided tools to engage in this sense of play through speculating, affirming, selecting, rejecting and evaluating musical ideas both individually and corporately. They democratised and integrated the practices of musical composition and performance in a way that significantly enhanced pupil learning. In making the focus of this project compositional ideas and skills, all pupils were given the opportunity to develop their musical understanding to a level which would have not been possible had the focus been elsewhere.

Selwyn (1999) considers the impact that particular subject 'cultures' have on the development of teachers' and pupils' use of ICT. He notes that the use of ICT in any given subject can be inherently at odds with conceptions of what that particular subject 'is', as well as often conflicting against 'what' and 'how' a pupil ought to learn. With regard to the use of technologies within each subject curriculum, he suggests that ICT should be as *accessible* and as *easy to use* as possible. Taking the computer as an example:

its significance as an effective learning tool must be highly *visible*, while simultaneously its role as a mediating technology supporting visibility of the subject matter must be highly *invisible*.

Without a good balance between these two interacting requirements effective use of the computer cannot, and will not, take place. (Selwyn 1999: 45)

The idea of the visibility or invisibility of technology within the learning process is pertinent here. Within the Dunwich Revisited Project, various technologies were highly visible as an intrinsic part of the teaching and learning process. In adopting a specifically sonic and electroacoustic approach to the compositional process, the uses of technologies were entirely in line with a conception of what that 'subject' is. However, the 'what' and 'how' pupils ought to learn with these technologies is more problematic. It seems clear from lesson observations, interviews and other evaluation data that the uses of *appropriate* technologies enhanced and promoted an approach to learning that was consistent with the aims of the project. Technologies were certainly highly visible in the creative process, but this did not detract from pupils adopting a highly focused and mature approach to the making or composition of music itself.

Whilst acknowledging that technology does mediate ideas of how to create music, Folkestad, Hargreaves and Lindström (1998) suggest that 'the computer seems to have had the function of a *tool for realising musical ideas*, and thus becomes more of less transparent in the creative process' (p. 95). Drawing on research by Ödman (1992), they conclude that the computer is able to achieve 'a shift from representations of music to the music itself' (p. 95). This project provides an example of a way in which this happened; technologies were, in a sense, both visible and invisible within the learning and teaching process. Selwyn questions whether the use of ICT will ever 'be totally integrated into every subject area' within schools (Selwyn 1999: 46). Was total integration achieved within this project? Probably not, but is this desirable? The use of new technologies as tools, framed by and serving an appropriate and authentic music curriculum, seems to be the best way forward.

Music, as one example of a subject 'culture', presents pupils with a rich and stimulating field for the imaginative use of various technologies for creative ends. By empowering them with appropriate technologies, by giving them the reflective space and framework in which to work, and by challenging them to work at a level that requires them to exercise aesthetic judgements and decision-making, their musical thinking and understanding will develop rapidly.

Recordings of some of the music composed by pupils for this project will be included on a CD as part of a future issue of the BJME.

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