

Institution: Durham University
Unit of Assessment: 35
Title of case study: New encounters with the human voice through a ‘digital opera’ (CS2)
<p>1. Summary of the impact</p> <p><i>Encounters in the Republic of Heaven</i> is an electroacoustic composition by Trevor Wishart, based on the speech of people in north-east England. The project relied on extensive engagement with local communities, a process which benefited not only the composer but also the people who provided the material for the composition, through public talks and composition workshops. Further beneficiaries were national and international audiences of the finished work, the promoters who organised these and related events, and other users of the software tools developed by Wishart. The production of <i>Encounters</i> has therefore involved three distinct elements, which have each had significant impacts:</p> <ol style="list-style-type: none"> 1. Engagement with local communities 2. Technological innovation in the development of software tools necessary for the composition 3. Promotion of the composition to audiences worldwide, including new audiences for electroacoustic music, through performances and recordings.
<p>2. Underpinning research</p> <p>Trevor Wishart has been researching in electronic music for over 40 years and is internationally famous for his innovative approach to the musicality of the human voice. <i>Encounters in the Republic of Heaven</i> is an 80-minute 8-channel electroacoustic composition he created at Durham, initiated after he took up employment here in 2006, and completed and premiered in 2011. Wishart was initially appointed as a Composition Fellow, jointly funded by the Arts Council of England (ACE) and Durham University, and his contract was extended by the University in 2009. The composer was attracted to Durham by the Music Department’s long-standing reputation in the field, and its extensive specialist facilities, which have been used by several noted electroacoustic composers in addition to the current staff members, Peter Manning and Sam Hayden.</p> <p><i>Encounters</i> is an exploration of the music inherent in everyday speech. It brings together stories told by adults and children, and reveals their melodies, rhythms and sonorities in an 8-channel surround-sound presentation. The composition subjects recorded speech to cutting-edge compositional techniques in electronic music, resulting not only in a musical work of unusually large scale but in a wider project of great complexity. The project had three chronological stages: (a) collection of material for the composition, (b) software development to enable new forms of digital processing of the collected material and the composition itself, and (c) performance and recording productions of the work.</p> <ol style="list-style-type: none"> (a) Wishart began by collecting speech recordings from a cross-section (by gender, age and vocal characteristics) of the speech community in the region – from homes, schools and meeting-places in north-east England. These recordings (many more than were used in the final composition) have been deposited at the The Newcastle Diachronic Electronic Corpus of Tyneside English (DECTE), where they are available to students of speech and dialect [7]. (b) In order to extract and transform musical features of this speech he developed new tools for the software suite <i>Composers Desktop Project</i> (CDP) and its user interface <i>SoundLoom</i>. Wishart has been one of the major contributors to CDP since its inception, and is solely responsible for creating <i>SoundLoom</i>. In particular, for <i>Encounters</i> he implemented new software functions to facilitate the manipulations for the human voice used in this composition (the conversion of speech to song by ‘FOF extraction’), and to enable the animation of 8-channel surround sound (‘Multi-channel’). These new elements created by Wishart have been part of CDP/<i>SoundLoom</i> since Release 6 in 2010, having first been made available to users between 2008 and 2010 as updates (www.composersdesktop.com). (c) Wishart has supervised over 30 performances of <i>Encounters</i> in whole or part. This has

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involved his visiting venues, assessing performance equipment, and configuring the use of space in advance of each event. Wishart worked with Durham technicians and equipment for UK performances. He has also published a stereo remix of *Encounters* with an accompanying booklet in 2011, as well as a 5.1 surround sound version on DVD, the production of which was commissioned by Edition RZ, the German new music recording company (2012).

3. References to the research

(i) Composition

Wishart, T. (2011). *Encounters in the Republic of Heaven* for 8-channel electronics. Commissioned by the Arts Council of England. Premiered at the Sage Gateshead, 4 May 2011. Duration: 80 minutes.

(ii) Booklet with stereo CD

Wishart, T. (2011). *Encounters in the Republic of Heaven*. York, Orpheus The Pantomime.

(iii) 5.1 surround sound version

Wishart, T. (2011). *Encounters in the Republic of Heaven*, in INVENTIONEN VII: 30 Jahre inventionen 1982 – 2012. Ed. RZ 3006-8. <http://www.edition-rz.de/3355-107,1,0.html>

(iv) Book

Wishart, T. (2012). *Sound Composition*. York, Orpheus The Pantomime.

Markers of Quality

Wishart is an internationally famous electroacoustic composer, recognized by the award of the Giga-Hertz-Award for Electronic Music: Grand Prize in 2008. Markers of the quality of this particular work include his subsequent appointments in Oxford, running concurrently with his Durham employment:

Artist in Residence at the University of Oxford, funded by the Leverhulme Trust Artist in Residence scheme (2010-11)

Plumer Research Fellow at St Anne's College, University of Oxford (October-December 2011)

The Wire published a favourable review of the premiere of *Encounters* in June 2011, while *The Journal of Music and Meaning* published a 27 page article in 2011 discussing his work (including *Encounters*):

Marty, N. (2011). "Creavolution" with Trevor Wishart'. *Journal of Music and Meaning* 10, pp.81-107.

Above all, the quality of the work is indicated by the numerous invitations from around the world to present the piece, as listed in the following section.

Encounters is entered as an output in REF 2014 (both CD and DVD versions as well as 8-channel files); all other sources cited here are available on request.

4. Details of the impact

Wishart's *Encounters* achieves impact in several diverse ways. The research has had an effect on numerous beneficiaries including:

- schoolchildren and teachers participating in workshops, which were (a) attached to the recording field-trips, and then (b) organised subsequent to the composition phase in order to present the work to groups including those who had been recorded;
- hundreds of *CDP/Sound Loom* users worldwide, including several well-known composers and educational institutions;
- audiences who have purchased the published versions of the piece (300 copies of the CD sold to July 2013);
- audiences at Wishart's lectures and lecture/demonstrations about the work;
- festival and concert promoters, who have found increased interest in this kind of music through the positive reception of *Encounters*;
- students of speech and dialect, due to the archiving of Wishart's original recordings.

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Community engagement. The period of material collection provided valuable opportunities for children and adults to engage with the process of creating *Encounters*. While collecting recordings of voices in schools in Co. Durham, Wishart also ran composition workshops for groups of schoolchildren at which, under his guidance, they composed their own pieces based on speech rhythms. This had various benefits: the schoolchildren gained confidence in the use of music technology and an appreciation of its creative possibilities; and they were introduced to composition while at the same time becoming aware of the potential musicality of their own speech. Shortly after the completion of the composition (but before its premiere) in spring 2011, Wishart took an 8-channel sound-system to local community venues and schools, and presented a talk and demonstration about the work to groups of children and adults whose voices had been used in the composition [3]. This was supported by £5k of funding from Musicon, the University's professional concert series, and facilitated by the Department's technicians. Venues included: The Bradbury Centre, Age UK, Sunderland; Ryton Comprehensive School; Our Lady Primary School, Esh Winning; St Joseph's Primary School, Ushaw Moor; Wearhead Primary School, Wearhead; Greenfield School, Newton Aycliffe; Witham Hall, Barnard Castle; and the Morpeth Northumberland Gathering.

Software development. The digital transformation of the material required the development of new tools within *CDP/SoundLoom*, which led to another form of impact. Wishart produced new software tools for the composition of *Encounters*, benefitting subscribers to the program. The number of individual subscriptions to CDP was 543 as of July 2013: they include several well-known composers [5, 6] [text removed for publication]. Over a hundred institutions use the program, including Columbia University's Computer Music Center, some with site licences of up to 30 workstations. The users are located in about 20 countries in Europe, Asia, North and South America, evidencing the presence of dedicated followers of this software in a highly competitive world. CDP's coordinator writes that '[I]t is undoubtedly [Wishart's] creative and programming genius that has made the CDP system one of only a handful of similar power.' [4]

Performances and other forms of dissemination. The final 8-channel surround-sound work was completed in January 2011 and premiered to a full house at the Sage Gateshead on 4 May, preceded by a public lecture by the composer. Wishart then took the work, alongside public lecture presentations about the research, on a tour of international venues. At Auditorio Blas Galindo, Mexico City's premier concert venue, an audience of 200 attended the event. Despite the majority of the audience being unable to comprehend the language in the piece, the work was enthusiastically received. Similar concerts were presented at the Irish Chamber Orchestra Hall, Limerick (May 2011); Auditorium, Stockholm (October 2011); Dutch Royal Conservatory of Music, Den Haag, (November 2011); Danish Royal Conservatory of Music, Aarhus (December 2011); Game of Life, Den Haag (May 2012); Institut für Musikwissenschaft und Musikinformatik (IMWI), Karlsruhe (July 2012); Sound Travels Festival, Toronto (August 2012); Black Box Auditorium, Sibelius Academy, Helsinki (September 2012); Song Circus, Stavanger and IMATRONIC Festival, Karlsruhe (November 2012) and Conservatorio di Musica Benedetto, Venice (December 2012). The concert at Toronto was also webcast, while the accompanying talk was published in *Econtact!* (15.2, at http://cec.sonus.ca/econtact/15_2/wishart_encounters.html). These invitations themselves demonstrate the impact of Wishart's composition in raising the profile of electroacoustic music.

Wishart also presented the complete work at the following venues in the UK: King's Place, London (May 2011); Cockermouth's Midsummer Festival (June 2011); Jacqueline du Pré Concert Hall, Oxford (June 2011); PACE Studio 1, De Montfort University, Leicester (January 2012); The Atrium, University of Edinburgh (February 2012); Eleanor Rathbone Theatre, University of Liverpool (February 2012); York University (September 2012); Sound-Scotland Festival, Aberdeen and Bangor University (November 2012); and Keele and Birmingham Universities (February 2013). A sound installation based on parts of the *Encounters* material was created at the Botanic Gardens, Durham, in June 2012. The Cockermouth performance was particularly significant because it had valuable consequences for the festival. A representative of the festival writes: 'The fact that *Encounters* was coming to Cockermouth encouraged the Festivals Group to apply to Grants for the Arts to commission new works which would also use electro-acoustic technology and local material. The application [for funding of £10k] was successful, and for 2012... [a] local composer and community musician [composed] a piece of live music, using recordings of local voices and sections for traditional musicians and local choirs. Placing *Encounters* in the festival provided an

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audience of people who would not otherwise have been exposed to this kind of work, who responded positively to the experience.’ [1]

The First Act of *Encounters* has also been performed in Birmingham, Berlin, Köln, Freiburg, Bergen, Paris, and Wrocław (Musica Electronica Nova Festival), and various acts presented in Barcelona in June 2012. Interviews and broadcasts of extracts from the work have also been aired on Radio UNAM Mexico City and on Swedish Radio. Given the typically small audience for electroacoustic music, Wishart’s unusually high number of performance commissions is a measure of the research’s extensive reach, and of its perceived significance amongst programmers and audiences.

Typical of the reaction of audiences and critics to *Encounters*, a reviewer of the presentation at Sound-Scotland writes: ‘What really generated the fascination and excitement in this amazing musical journey were the transformations created from the voices by Trevor Wishart, alchemist in sound. Choruses of voices, huge organ chords and as the programme note said so aptly “imaginary musical instruments” that sounded as if they had come from another universe. This was an amazing journey for the ears, for the mind and even at times for the emotions. Thank-you Trevor Wishart for letting us take a glimpse into your fabulous universe of sound.’ [2]

5. Sources to corroborate the impact

1. Email from representative of the Cockermonth Festival Group, commenting on the favourable reception of *Encounters* and its influence in subsequent commission grants; screen shot of details of grant.
2. Online review from the website of Sound-Scotland, November 2012
3. Examples of letters from primary school children at schools where Wishart presented an illustrated talk about the piece in early 2011.
4. Letter from administrator of The Composers Desktop Project, on Wishart’s contribution to CDP, its dissemination and significance.
5. List of selected users of Composers Desktop Project:
<http://www.composersdesktop.com/people.html>
6. Harry-Ed Roland, composer, online essay on the strengths of the CDP/SoundLoom system, downloaded from CDP website.
7. Screen shot of The Newcastle Diachronic Electronic Corpus of Tyneside English (DECTE) featuring a selection of Wishart’s recordings.