

Impact case study (REF3b)

Institution: University of Liverpool
Unit of Assessment: 35 – Music, Drama, Dance and Performing Arts
Title of case study: <i>Audiotectonics</i> : Composing for Percussion and Electronics
<p>1. Summary of the impact</p> <p>This case study describes the impact of the on-going practice-based research undertaken by Matthew Fairclough, started in 2003, into new ways of working with percussion and electronics. It has resulted in wide ranging cultural and economic benefits, including impact on individuals and organisations in the private sector. More specifically, the research has resulted in:</p> <ul style="list-style-type: none"> • Enhancement to the career, profile and creative practice of a percussionist • Opportunities for the creative outputs and development of a visual artist • Exposure, sales and product feedback for an instrument manufacturer • Performance, creative and career development opportunities for other composers • Public understanding and appreciation of new music and performance techniques through concerts in public venues outside the Higher Education sector, and through workshops, recordings, broadcasts and digital downloads
<p>2. Underpinning research</p> <p>The underpinning research was carried out at the University of Liverpool (2003 - present) by Matthew Fairclough, Senior Lecturer in Music, through a series of five musical compositions for percussion and electronics (listed below). The research included experimenting with new ways of working with percussion and electronics, including creating new software patches in “MAX/MSP”, experimenting with new and ancient instruments, as well as testing new sound processing and looping equipment. With all five compositions, the overarching research aim was to develop and design integrated systems and performance techniques that are musically effective, time-synchronised, practical and reliable, both in concerts involving Fairclough and those where percussionist Joby Burgess, a regular musical collaborator, performs and tours solo. The information below indicates the quality of the underpinning research and aids understanding of Section 4. Compositions 1 – 3 below were RAE 2008 outputs, whilst Composition 5 is a REF 2014 output. All the works have received a significant number of repeat performances and several have been broadcast or recorded for commercial CD releases.</p> <p>1. Audiotectonics I (2004): Originally composed for Tim Williams of the Manchester based group Psappa, this piece is scored for MalletKat or Xylosynth and Sampler.</p> <p><u>Performances:</u> Tim Williams performed this piece twice in Venezuela (2005) and also in Manchester and Liverpool (2004). There were also seven UK performances by Joby Burgess (between 2005-9), including those at Bath International Music Festival, Aldeburgh’s <i>Faster Than Sound Festival</i> and Oxford Contemporary Music Series.</p> <p>2. Audiotectonics II (2005): This piece was composed for New Noise, an oboe and percussion duo, and was premiered at the launch of the ‘<i>Sound Source</i>’ concert series presented by the Society for the Promotion of New Music.</p> <p><u>Performances:</u> New Noise have given this piece eight UK performances (2005-2009), including St John’s Smith Square London, Leeds International Concert Series and Petworth Festival.</p> <p>3. Audiotectonics III (2005): This piece was composed for Joby Burgess and the Powerplant project and is scored for Xylosynth and Sampler.</p> <p><u>Performances:</u> Burgess gave ten UK concert performances of the piece (2005-2008), including those at Purcell Room London, Aldeburgh’s <i>Faster than Sound</i>, Corsham Festival and the Hayward</p>

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Gallery. There were ten additional performances in Workshops at UK Secondary Schools (2013). The piece was also recorded on a CD released in 2008 by Signum Records (SIGCD143) and broadcast on national radio in the UK, Ireland and Australia (2009-11).

4. [Carbon Copy](#): This piece, for the ancient [Berimbau](#) and Electronics, was composed collaboratively with Joby Burgess.

Performances: There have been two international performances of the piece in Switzerland and Germany (2009); over 20 UK performances (2004-2012), including those at Sound Festival Aberdeen and Aldeburgh Festival; and ten further performances during Workshops at UK Secondary Schools (2013). The piece was also recorded on a CD released in 2008 by Signum Records (SIGCD143).

5. [The Boom and the Bap](#) (2010): This piece was composed for Joby Burgess and the [Powerplant](#) project. It is scored for a small acoustic drum-kit with live electronic processing using MAX/MSP.

Performances: There have been nine international performances in the US (2010-2011) and Brazil (2013), and seventeen UK performances (2010-2013), including those at Kings Place London, Glasgow Royal Concert Hall, MAC Arts Centre Birmingham and Wiltshire Music Centre. The piece was also recorded on a CD released by Signum Records, SIGCD313 (2012).

3. References to the research

1. [Audiotectonics I](#) (2004) *RAE 2008 Output*
2. [Audiotectonics II](#) (2005) *RAE 2008 Output*
3. [Audiotectonics III](#) (2005) *RAE 2008 Output*
4. [Carbon Copy](#) (2004-5)
5. [The Boom and the Bap](#) (2010) *REF 2014 output*

References 3,4,& 5 above have been released commercially by Signum Records on [SIGCD143](#) and [SIGCD313](#)

This research has been supported by external funding from the [Foundation for Art and Creative Technologies](#) (FACT; £10k) through its Institute for Technical Exhibition Management (ITEM), and by the Arts Council England (ACE; approx. £15k), NESTA and the Performing Rights Society (PRS) Foundation (approx. £12.5k).

4. Details of the impact

Matthew Fairclough has brought unique skills and experience garnered through his own compositional research to his work with Joby Burgess, and with his other collaborators.

Pieces 3 & 5 (above) were composed for Powerplant, supported by FACT (£10k) through its Institute for Technical Exhibition Management (ITEM), and funded by the Arts Council England (ACE) and NESTA. Powerplant is a multimedia performance trio featuring Joby Burgess (percussion/electronics), Matthew Fairclough (sound design/electronics) and Kathy Hinde (visuals). The ITEM-funded research involved the development of a touring and performance system, and was dependent on Fairclough's practice-based research in composing and developing performance methods for percussion and electronics. The research has benefited Burgess' career in the following ways:

- a) Initially, the research involved designing and developing a new system centred on the Xylosynth linked to a laptop computer, facilitating live sampling, looping and sound processing. The system enabled Burgess to tour without the need for a dedicated and

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- expensive sound engineer. As a result, Burgess has secured more solo concert opportunities, including tours in America and the UK.
- b) Fairclough trained Burgess to use this system, introducing him to skills that enhanced his profile as a unique and innovative performer with a new and distinctive repertoire.
 - c) The success of the Powerplant collaboration led to awards in excess of £10K from the ACE and the Performing Rights Society (PRS) Foundation, providing funds for touring, marketing, recording and the commissioning of new works.

The ACE and PRS grants enabled Powerplant to commission other composers, further broadening the repertoire for Burgess. For example, composer Graham Fitkin worked with Powerplant in the University of Liverpool (UoL) recording studios, where new looping and sampling techniques were demonstrated using Fairclough's *Audiotectonics III*. Consequently, Fitkin composed *Chain of Command*, which was recorded on CD (SIGCD143) and featured in many UK and international performances, making direct use of Fairclough's system. Other subsequent commissions have utilised the Powerplant system including Gabriel Prokofiev's *Import Export*, which has been recorded on CD (NONCLSS007) and performed many times, both nationally and internationally.

Additionally, Powerplant has benefited the career of video artist [Kathy Hinde](#). Hinde has created visuals for Fairclough's compositions since 2002, as well as live video projections for Powerplant's repertoire. The collaboration on Fairclough's compositions has helped to raise Hinde's public profile as an artist and provide her with financial income. The Powerplant releases are hybrid CDs that include additional video content, which has raised Hinde's profile even further. Viewing figures for Powerplant videos on Youtube have exceeded 200,000. Throughout their collaboration on Fairclough's compositions, Fairclough has been able to share his research methods and practice with Hinde, and in her written accompanying statement (Section 5 below) Hinde describes how this has enhanced her knowledge, skills and creative output. In 2008, following preparatory work at the University of Liverpool (UoL) recording studios, Fairclough and Hinde performed as a duo at FACT and Bath International Music Festival, and Hinde created live video projections for Fairclough's own performance in which he used his live electronics system.

Powerplant's performances have had a positive cultural and inspirational impact on audiences. For example, Devonshire A-level student Jessica Clarke contacted Fairclough after attending a Powerplant concert. Impressed by the music and performance, she purchased a Xylosynth but experienced difficulties trying to achieve the kind of effects and style of playing that Powerplant had demonstrated. Consequently, Clarke visited the UoL studios and received training from Fairclough on the use of her computer system and Xylosynth. Notably, based on his previous research, Fairclough was able to create a software patch that solved a problem in Clarke's performance set-up.

Further impact has been achieved in the secondary education sector. Financial support from the University of Liverpool's Research Development Fund facilitated a series of 10 workshops at schools and Arts Centres during 2012/2013, reaching over 400 school children studying music. Fairclough and Burgess demonstrated Fairclough's compositions and performance system, giving the pupils an insight into performance practice and New Music repertoire with electronics. There was much positive feedback from the workshops including statements such as "The students haven't stopped talking about the event. For younger students who attended, they have become more brave and creative in their composition work, this is only less than a week after the performance!" (Music Teacher at St Lawrence School, Bradford Upon-Avon 19.6.2013).

In addition to this, Powerplant's recordings, concerts and workshops have enabled public audiences locally, nationally and internationally to access and engage with Contemporary Art Music featuring percussion and live electronics. Fairclough's compositions have added to this sparse repertoire, a repertoire that was previously rarely encountered outside of a Higher Education setting. Three of Fairclough's compositions are recorded on two CD releases and have been performed in international concerts. One of these compositions, *Audiotectonics III*, was selected for a special New Year's Day edition of Radio 4's 'Late Junction' in 2008, with subsequent broadcasts in Ireland and Australia. Furthermore, *Audiotectonics III*, *Carbon Copy* and *The Boom*

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and the Bap are all available for download via commercial websites, including iTunes, and all have received positive reviews.

Finally, the manufacturer Wernick Instruments has benefited from the Xylosynth being used in the unexpected context of Contemporary Art Music concerts and public workshops, which has led to an increase in sales, such as the purchase by Jessica Clarke (above). Furthermore, early on in the Powerplant collaboration, feedback from Fairclough and Burgess enabled Wernick Instruments to modify the internal software of subsequent models, improving the compatibility with computer music software in live performance.

5. Sources to corroborate the impact

(1) A positive review of the 2008 Powerplant CD (SIGCD143) by a well-known music critic was published in [Gramophone \(January 2009, volume 86\)](#). The review demonstrates that there have been successful outcomes from Fairclough's practice-based research in composition and sound design for percussion and electronics.

(2) A [Freelance Percussionist](#), has provided a statement to corroborate the positive impact that Fairclough's practice-based research (composition and sound design) has had on his career and practice as a percussionist working with live electronics.

(3) A [Freelance Composer](#), has provided a statement verifying the fact that the collaborative research of Fairclough and Burgess has provided him with both a new artistic outlet and public exposure for his work.

(4) A [Freelance Artist](#), has provided a statement which confirms that her collaborative work, specifically for Fairclough's compositions and Powerplant's concert repertoire, has led to the wider exposure and dissemination of her own work.

(5) Director of [Wernick Instruments](#), has provided a statement confirming that his company has benefited from Fairclough and Burgess' work with the Xylosynth, both through feedback (leading to internal software modification) and public exposure.

(6) A positive international review of the Powerplant CD (SIGCD143) by a music critic on [Klassik.com](#) further corroborates the positive artistic and cultural impact of Fairclough's research.

(7) A radio broadcast of Audiotectonics III (28.08.2011) on the Irish classical-music radio station RTE lyric FM (owned by the public-service broadcaster Raidió Teilifís Éireann) demonstrates the success and impact of Fairclough's practice-based research and composition. The broadcast was part of the NOVA programme which chronicles new and radical music, bringing it to the attention of the public.

(8) A [radio broadcast](#) on the BBC Radio 3 programme 'Late Junction' (01.01.2009) demonstrates the success and impact of Fairclough's practice-based research and composition by illustrating the selection of Audiotectonics III for broadcast on what is a high-profile national radio programme.

(9) A then A-level student can be contacted to corroborate the positive impact of Fairclough's practiced-based research in public concerts and education workshops (contact details provided). She was an A-level student who bought a Xylosynth after hearing Fairclough's composition in a Powerplant concert, and subsequently contacted Fairclough and visited the University of Liverpool in June 2012, receiving technical guidance from Fairclough.

(10) [These webpages](#) help verify the positive feedback from the 10 workshops held for secondary school children within the UK. The information corroborates the positive artistic and educational impact of these workshops within the secondary education sector.