

Michaela Palmer

Senior Lecturer in Digital Media

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Research interests

My research interests lie in observing and making perceptible some of the complex generative processes one might encounter in art, music or nature.

Interactive artefacts and performance scenarios - enabled by sensor and software technologies - often provide interesting starting points to study engagement as well as the emergence of different kinds of play. This was the focus of my practice-led doctorate, for which I produced *Excitations*, a series of performances and participative artworks that explored the experience of listening to one's body.

The work made use of biofeedback sensors, which measured data such as blood flow and stress levels. This data was used to create sounds in real-time. Listening to one's biofeedback sounds can make the nature of these physiological processes perceptible, especially when the sounds are composed in such a way that they still carry some recognizable core characteristics.

As a postdoctoral researcher, I currently take part in interdisciplinary collaborations. My own contributions are in the fields of sonification (the making-audible of complex processes), physical (sensor-based) computing, as well as multimedia authoring for performance contexts. I also enjoy engaging in qualitative research and science communication projects.

Education

PhD *Listening to the Mind at play – sonified biofeedback as generative art practice and theory*, London Metropolitan University, 2001-2010
Supervisors: Nico de Oliveira, Javier Garavaglia, Lewis Jones

Postgraduate Certificate in Education,
University of Greenwich, London, 1999-2001

Postgraduate Diploma in Fine Art,
Central St. Martins College of Art, London, 1999-2000

MA Art in Architecture (Distinction),
University of East London, 1996-1997

BA (Hons) Architecture,
Fachhochschule Nürnberg, Germany, 1991-1996

Teaching experience

As Senior Lecturer in Digital Media at the University of the West of England I lead a range of modules on programs in Digital Media, Audio & Music Technology and Creative Music Technology. I am also involved in the development of a new Ma/MSc in Creative Media Technologies and a new MSc in Human Computer Interaction.

I am experienced in the use of qualitative research methods, such as grounded theory, action research, interviews and non-participant observation. I have long-standing experience in the supervision of dissertations and creative practice projects at both undergraduate and Master's level, often taking on some of the more unconventional projects that connect sonic art or physical computing with human computer interface design.

Teaching posts

Senior Lecturer in Digital Media, Faculty of Environment & Technology, University of the West of England, 2009-ongoing

Senior Lecturer in Interactive Multimedia, Faculty of Creative Arts, University of the West of England, 2006-2009

Senior Lecturer in Digital Media & Design, Department of Applied Social Sciences, London Metropolitan University, 2003-2006

Senior Lecturer in Digital Arts & Creative Technologies, London College of Music and Media, Thames Valley University, 2000-2003

Professional memberships, external roles

External examiner for MA Digital Media,
London Metropolitan University, 2010-2013
Fellow of the Higher Education Academy (FHEA)
Member of the Institute of Learning (IfL)

Member of the International Computer Music Association (ICMA)
Key organizer of Mindplay conference, London, 2006
Member of the Creative Technologies Lab, a research cluster within the Department of Computer Science & Creative Technologies at the University of the West of England.

Involvement in research

Sonic Severn (www.sonicsevern.co.uk), sonification of rhythmic patterns in the Seven Estuary. Ongoing research collaboration with Dr. Owain Jones, Reader in Cultural Geography at the Countryside & Community Research Institute, Gloucester

NWO-AHRC arts and humanities research exchange project “*Between the Tides*”. *Comparative arts and humanities approaches to living with(in) intertidal landscapes in UK & the Netherlands*, Dr. Owain Jones and Dr. Bettina van Hoven, 2012-2013. My sonification research will play a part in this project.

Affective Gaming, Dr. Mark Palmer, 2011-2012. I helped Mark to use biofeedback sensors to monitor how players feel whilst playing a video game. Their galvanic skin response, heart rate and heart rate variability were measured in order to gain a better understanding of patterns of engagement.

Recent conferences and exhibitions

Sedimentsonority, sonic model of fine sediment behaviour, presented at Water:Image conference, Plymouth University, UK, June 2012

Sonic Severn: soundscapes, sonifications and compositions exhibited at the Bristol Festival of Nature, UK, June 2012

Sonic Severn and *Excitations* exhibited at DigiCult (work at the intersection of technology and culture), University of the West of England, Bristol, UK, June 2011

Sonic Severn and *Sedimentsonority* presented at Inter-Society of Electronic Arts (ISEA) conference, Istanbul, September 2011

The Breath of the Moon: Listening to Tidal Rhythms in the Severn Estuary, pilot sonification of the Severn Estuary, exhibited at the Bristol Festival of Nature, UK, June 2010

Excitations, biofeedback performance 10:00 min, performed at the Florida Electro-Acoustic Music Festival, Gainesville, Florida, US, April 2008

Recent and forthcoming publications

Palmer, M and Jones, O (2012), *On Breathing and Geography. A discussion of data sonification and rhythms in processes, with illustrating examples from the tidal Severn Estuary (UK)*, Environment and Planning (at peer review stage).

Palmer, M (2012) 'Designing human computer interfaces', chapter for Moschini and Lane (eds), *The Digital Media Handbook: Theory and Reflective Practice*, Harlow, Essex: Pearson Education (forthcoming).

Palmer, M (2011), *On Breathing and Geography - sonifying the Severn as shared generative art practice* in Proceedings of the Inter-Society for the Electronic Arts (ISEA 2011), Istanbul, Turkey

Palmer, M (2010) 'Listening to the Body's Excitations', in *Performance Research*, Volume 15, No. 3 (Sept 2010), Routledge/ Taylor & Francis (London & New York), ISSN 1352-8165 (print) ISSN 1469-9990 (online)

Catalogue Contribution to *Practice-as-Research: in Performance and Screen* (2009), ed. by Allegue, Jones, Kershaw and Piccini, Palgrave Macmillan, ISBN 978-0-230-22001-0

Guest editor for Digital Creativity Journal, Special issue: Play and Interaction, Vol 17 No 3 (Aug 2006), Routledge, ISSN 1462-6268 (print) ISSN 1744-3806 (online)