

Dr. Michael Paul Blow

Flat 2
178 Citadel Road
Plymouth PL1 3BD
United Kingdom

(work) 07725 334920

mike@evolutionaryart.co.uk

<http://www.evolutionaryart.co.uk>

Introduction

I am an academic and artist working in interactive installation, electronics and sound. My installation work is usually presented as an open score, incorporating chance events such as the activation of work by the public or weather. I also design and perform with home-made electronic instruments and software inspired by artificial life concepts. Having studied a doctorate in sonic art under Ray Lee and Prof. Paul Whitty at Oxford Brookes University between 2009 and 2014 I currently hold the post of Programme Lead and Lecturer in Interactive Media for BA/BSc Digital Art and Technology at Plymouth University, UK.

Summary

• Overview of Academic Experience

- Programme Lead, Module Lead, curriculum development, year tutor, personal tutor, exchange and erasmus tutor, lectures, seminars, workshops and tutorial supervision at both UG and PG level, recruitment and marketing, organising international field trips and student exhibitions. I hold a PGCAP qualification and am a Fellow of the HEA. Faculty winner, *Most Innovative Use of Teaching Methods* award, Plymouth University Student Union SSTAR awards 2015.
- Taught subjects include digital art context and history, interaction design, open source interactive digital technologies such as Arduino, Processing and Pure Data, creative strategies and interdisciplinary methodologies, artificial life and electronics.
- Ten publications including Leonardo Music Journal *Sound Art* LMJ23 (Dec 2013) and paper accepted for ISEA 15. Current research projects include augmented reality instruments as part of the *AGAST* (Avant-Gardes and Speculative Technology) project with Oxford Brookes University, and the *Democratic Electronic Music* project investigating DIY instruments and fablab culture, funded by Oxford Contemporary Music. Publications available at <https://plymouth.academia.edu/MikeBlow>.

- **Overview of Technical Experience**

- Arduino, Lilypad, Wearables, Raspberry Pi, Internet of Things (Arduino with wireless shield, MQTT, Node Red), real time clock chips, SD card access for Arduino. Software: Java / Processing / MAX/MSP / Pure Data / C / C++ / HTML / CSS / PHP / MySQL / Illustrator. Sensors: LDR / microphones / piezo / accelerometers / pressure sensors / bend sensors / reed switches / strain sensors / PIRs / RFID and NFC / IR and Ultrasonic distance. Outputs: LED / audio / servos / Motors and motor drivers / ULN2803 and other transistor driver circuits / relays. Electronics and circuit design, oscillators and lofi audio circuits, circuit bending, audio installation. Safe interfacing of arduino to mains equipment and antique objects, robotics, solar cells as power, as sensors and as microphones (light to sound), aeolian devices, ambisonics and surround sound. Fabrication: working with plastics, metal and wood, 3D printing and lasercutting. I have exhibited nationwide in galleries and outdoors, and worked on a wide variety of technical art projects, with permanent exhibits in the Museum of Oxfordshire and the new communications gallery of the Science Museum, London.

Employment

- 2015: Awarded Fellowship of HEA.
- 2014 - present: Programme Lead BA/BSc Digital Art and Technology Plymouth University, awarded Post Graduate Certificate in Academic Practice.
- 2012 - present: Lecturer in Interactive Media, Plymouth University. Modules: Strategies for Art and Technology 1, Strategies for Art and Technology 2, Emerging Technology Lab 1, Emerging Technology Lab 2, Reflexive Design, Everywhere.
- 2006 - 2012: Visiting Lecturer in MA Digital Media Arts, University of Brighton.
- 2008 - 2011: Visiting Lecturer in BA Top-up Digital Media Arts, City College Brighton.
- 2005 - 2006: Research Assistant in Humanoid Robotics, University of Hertfordshire.
- 1998 - present: Director, Cona Consultancy Ltd. Computer and Digital Arts consultancy.

Publications

- **Disrupted Architecture: Reimagining Buildings through Sound.** Mike Blow. ISEA 2015 (in press).
- **Solar Work 2: A Solar-Powered Sound Artwork.** Mike Blow. Leonardo Music Journal Vol 23, December 2013. MIT Press, Cambridge Mass. USA. Pp. 10-11.
- **Ceremony.** In: Garrelfs I. (ed.) Reflections on Process In Sound Issue 1 Autumn 2012.

- **In Search of the 'Third Form' - the Use of Multimodal Perception in Artworks.** Presented at Sight, Sound Space and Play 2011, DeMontfort University Leicester, 7-10 June 2011.
- **Subtle Objects: Pickup - an Interactive Sound Artwork.** Mike Blow. Proc Sight, Sound, Space and Play 10, Leicester deMontfort University, June 2nd - 4th 2010.
- **Machines for Singing - Reinterpreting the Built Environment.** Mike Blow, Rowena Easton. Proc Performing Places Seminar November 7-9th 2006, Helsinki Finland.
- **The Art of Designing Robot Faces - Dimensions for Human-Robot Interaction.** Mike Blow, Kerstin Dautenhahn, Andrew Appleby, Chrystopher L. Nehaniv, David Lee, Proc. AMC/IEEE HRI06, Salt Lake City, Utah, USA, 2006, pp. 331 - 332.
- **Perception of Robot Smiles and Dimensions for Human-Robot Interaction Design.** Mike Blow, Kerstin Dautenhahn, Andrew Appleby, Chrystopher L. Nehaniv, David Lee. In Proc IEEE Ro-Man 2006, London UK.
- **Stigmergy: Biologically-inspired Robotic Art.** Mike Blow. In Proc. AISB 2005 London UK.
- **There Does Not, in Fact, Appear to Be a Plan: A Collaborative Experiment in Creative Robotics.** Jon Bird, Bill Bigge, Mike Blow, Richard Brown, Ed Clive, Rowena Easton, Tom Grimsey, Garvin Haslett, Andy Webster. In Proc. AISB 2005 London UK.

Education

- **PhD: On the Simultaneous Perception of Sound and Three-Dimensional Objects**
Awarded March 2015
Oxford Brookes University, Oxford, OX3 0BP
- **MSc(Distinction) Evolutionary and Adaptive Systems**
October 2003 to September 2004
University of Sussex, Brighton, BN1 9RH.
- **BEng(Hons) 2.1 Electrical and Electronic Engineering**
September 1989 to July 1992
Brighton University, Lewes Road, Brighton, BN2 4AT.

Selected Art Projects

10 years

- *Shadowplay* Interactive audio remix piece presented at Cheltenham Jazz festival May 2015.
- *Aeolus' Cabinet* Interactive oak index card cabinet containing the sound of the wind. presented at Cheltenham Jazz festival May 2015.
- *Traak!* Augmented reality instrument using unity and google cardboard. Audiograft, February May 2015.
- *Pod* Tactile sound sculpture. Has appeared at Shunt and the Barbican in London, Whitley Festival in Reading and most recently Oxford Light Night, November 2014.
- *Arpeggi* aeolian sound sculpture in *Audible Forces* group show, Toured nationally May 2013 - August 2014.
- *Deep Listening* Solar-powered underwater listening raft as part of Urbonas Studio (MIT) / Tracey Warr (Oxford Brookes) *Rivers Runs* project, Oxford, August 2012.
- *Presence Room* installation in Brunel Electronic and Analogue Music Festival, Brunel University, London, June 2012.
- *Solar Work #2* in *Audiograft* sound art exhibition, Oxford, February 2012.
- Workshop: Build a light-reactive synth, SoundFjord Gallery London, 2012.
- *Torch Song* Interactive architectural installation in *Spotlight* group show, Oxford town hall, December 2011.
- *Time Machines* solo show, Oxford Brookes University, September 2011.
- Technical assistance with Roma Tearne and Paul Whitty, *The Swimmer*, Venice Biennale, July 2011.
- *Audiograft* sound art exhibition, various venues around Oxford, February 2011.
- *Shower*, *Ceremony* and *Photophonics*, invited sound pieces, Kinetica Art Fair, London, February 2011.
- *Garden*, interactive kinetic sound piece with Elisabetta Senesi, University of Brighton White Nights exhibition, October 2010.
- Workshop: Build an Arduino Theremin as part of *Build it Yourself* exhibition, Manchester City Gallery, 2010.
- *Pickup* interactive sound installation, Jubilee Library Brighton, May 2010 and University of Brighton Gallery July 2010.
- *Midnight Sun*, concept and lead artist on video piece with 8 contributors, Brighton Phoenix Gallery, October 2009.

- *Elbe River Tunnel* audio composition included in *Hinterlands* group show, Trafalgar Works Studio Brighton, July 2009.
- Technical assistance with Christian Boltanski, *The Whispers*, Folkestone Triennial, June-August 2009.
- Curated *Sonic Art* group show, Blank Studio Brighton, May 2009.
- *Machines for Singing* audio installation revealing the hidden life of buildings, winner of ArtsPlus and Arts and Business awards, in collaboration with artist Rowena Easton. Gardner Arts Center, Sussex University, June 10-16th 2006.
- Computer-controlled bubble projection tank for ActionTimeVision, exhibited at *L'image d'aprÈs: Le cinÈma dans l'imaginaire de la photographie*, Paris, April 4th-July 30th 2007.
- *The Senster* experimental sci/art theatre show in collaboration with Spacedog UK. Nationwide, ongoing (first performed 2006).
- *Stigmergy* evolving local rules for global behaviours, multi-robot installation, drawing with light. BigBlip'04 Science Art Festival, Brighton 2004.

Selected Awards and Commissions

- **Boom! Residency** Year-long career development residency with Oxford Contemporary Music. Awarded 1st April 2015.
- **Cheltenham Jazz Festival 2015** Commissioned by Brunel Electronic and Acoustic Music to produce two interactive sound artworks. Awarded 29th December 2014.
- **Oxford Light Night 2014** Commissioned by Oxford Contemporary Music to produce an interactive sound artwork. Awarded 15th May 2014.
- **POD** Commissioned by Hogarth Productions to produce an interactive sound artwork. Awarded 9th August 2013.
- **Audible Forces** Commissioned by Oxford Contemporary Music to produce a wind-powered sound artwork. Awarded 6th July 2012.
- **BEAM Festival 2012** Commissioned to produce an interactive sound artwork. Awarded 20th March 2012.
- **Oxford Light Night** Interactive installation proposal selected from open competition by Oxford Visual Arts Development Agency. Awarded 2nd December 2011.
- **AHRC Research Grant** To undertake PhD research in the Sound Art Research Unit at Oxford Brookes University. Awarded 3rd August 2009.
- **Arts and Business South East First Time Sponsors Award.** In partnership with Sound Solutions UK on *Machines for Singing*. Awarded 13th June 2007.
- **Arts Plus Development Award for *Machines for Singing*.** Awarded 22nd June 2005.

Technical Experience

25 years

- Software 20 years
 - Technical solutions for art installations using Wiring/Arduino, MAX/MSP, Pure Data, Java and Processing.
 - HTML, CSS, PHP, MySQL, Java.
 - Artificial Life, swarm simulations and evolutionary computing.

- Hardware and Robotics
 - Embedded systems, Arduino, Raspberry Pi.
 - Servos and motors including mains equipment control.
 - Electronics for art installations, sensor design and implementation.
 - Humanoid robotics research.
 - Swarm robots, emergent behaviour and cooperative systems.
 - Interrupt based programming for robot control over USB.
 - Solo and collaborative robotic art installations.

- Audio
 - Experience of minimal oscillator circuits, circuit bending, solar powered audio work, underwater audio.
 - Designing and rigging audio installations.
 - Broad knowledge of sound recording and DSP techniques, audio equipment and acoustics.
 - Ambisonics and spatial sound.