

# SARAH KETTLEY

June 2009

**address:** 5 Mortonhall Park Loan  
Edinburgh EH17 8SN

**nationality:** British  
**date of birth:** 10.10.68

**email:** [sarahkettley@me.com](mailto:sarahkettley@me.com)  
**web:** <http://www.sarahkettleydesign.co.uk>  
<http://www.jewellerytalks.blogspot.com>

**tel:** 0131 620 1342  
**mobile:** 07952 716889

## academic

2002-2007	Napier University, Edinburgh	PhD Research Student thesis title: <i>Crafting the Wearable Computer – Design Process and User Experience</i> : available on Scribd at <a href="http://www.scribd.com/people/view/1478920-sarahkettley">http://www.scribd.com/people/view/1478920-sarahkettley</a>
2001-2002	Napier University, Edinburgh	MSc Multimedia & Interactive Systems Design thesis title: <i>Can Wearables Become Part of Everyday Life?</i> group project: <i>A Handheld System for Ward Use</i>
1990-1993	Glasgow School of Art	BA (Hons) Design (Silversmithing and Jewellery)

## recent professional experience

- \* Research Fellow, Technical Textiles & wearable Concept Development, Nottingham Trent University, April – July 2009
  - Writing external funding applications
  - Development of specific projects using stretch sensor:
    - HUG*, a reactive textile sculpture with sound and emissive light
    - Aeolia*, a networked environmental textile sculpture and wearable installation
- \* Visiting Tutor, Duncan of Jordanstone College of Art and Design University of Dundee, Jan – April 2009
  - Regular tutorial support for named Masters of Design students
- \* Research Fellow, Technical Textiles & wearable Concept Development Nottingham Trent University, April – November 2008
  - Working between the schools of Architecture, Design and Engineering, and Textiles, to investigate the properties of a new stretch sensor embedded in woven and knitted structures.
  - Contextualising the research
  - Identifying potential project proposals
  - Disseminating initial findings through academic papers and presentations
  - Writing up project funding proposals
- \* Second supervisor for Sonja van Kerkhoff in her Masters in Media Technology at Leiden University, 2008
- \* Owner, TansleyShakeshaft Studio August 2007 - date
  - TansleyShakeshaft is a tangible interaction design studio and consultancy, undertaking design contracts, writing, and project management for arts organisations. Clients include the Research Consortium for Speckled Computing, London Metropolitan University, Sheffield Hallam University, an interactive commission for the Travelling Gallery, curation and consultancy for The Scottish Gallery, and project co-ordination for Innovative Craft and the Association for Contemporary Jewellery.

\* AHRC Arts and Science research fellow, '*ensemble*' project  
Napier University, Edinburgh, April – Dec 2006  
writing the project proposal  
collaborative design and implementation of a suite of wirelessly networked jewellery  
and dynamic soundscape for public installation  
day to day management of the project  
event management  
documentation and dissemination  
collaborative writing of the end of project report

## **research activity**

### *selected research grants (projects detailed on separate sheet)*

Craft Makers Award, City of Edinburgh Council 2009, £600; New Media Scotland Alt-w R & D award 2009, £2,500; Scottish Arts Council Crafts Development Award in conjunction with the AHRC project Past, Present and Future Crafts 2008 - 2009, £10,000; Scottish Arts Council Lottery Funding, Interdisciplinary Professional Development Award 2007, £1,500; Arts and Humanities Research Council Arts and Science Fellowship 2006 – 2007, £48,996

### *residencies and workshops*

Scottish Arts Council Crafts Development Bursary with DJCAD, Dundee, Jan – April 2009  
Project 2891, Pure Data/Arduino workshop over 4 weeks, CCA, Glasgow, Jan – Feb 2009  
Precious Metal Clay intermediary diploma module, PMC Guild, April 2008  
Tags and Tagging, ISSTI, Edinburgh University, 2 days, April 2008  
NESTA Starter for Six business training program Feb-May 2008  
New Media Scotland supported attendance at Product Scotland, Nov-Dec 2007  
goto10 Pure Data boot camp, CCA, Glasgow, May 2007  
reSkin Media Lab, Australian Network for Art and Technology, Canberra, Jan 2007

### *research groups*

Technical Textiles, Nottingham Trent University; Speckled Computing Arts Network; Interrogating Fashion Research Cluster; Pervasive and Locative Arts Network Research Cluster; Centre for Interaction Design research group, Napier University

### *reviewing and editorial*

Pervasive Expression 2008; HCI UK 2007, 2008; Human Technology Special Issue: Culture, Creativity and Technology 2006; International Design and Engagability Conference, NordCHI 2006; CHI Work In Progress papers 2006; DIS'04 (Designing Interactive Systems)

### *affiliations*

Girl Geeks Dinners, Scotland (organizing committee, Edinburgh branch); Association of Contemporary Jewellers, (executive member, Ethics Committee); Design Research Society; ACM (professional)

## **referees**

available on request

## **publications**

### doctoral thesis

*Crafting the Wearable Computer: Design process and user experience* Napier University, Edinburgh September 2007

*Volume One* available at: <http://www.scribd.com/doc/5145843/Crafting-the-Wearable-Computer-design-process-and-user-experience-Vol-1>

*Volume Two* available at: <http://www.scribd.com/doc/5146612/Crafting-the-Wearable-Computer-design-process-and-user-experience-thesis-Vol-2>

### book chapters

Technical Textiles, in Briggs-Goode, A. & K. Townsend (Eds), *Textile design: principles, advances and applications*, forthcoming. Cambridge: Woodhead

### editorial

(with Prof. Anne Cranny-Francis, University of Technology, Sydney) *Creativity, Culture & Technology*, forthcoming title, Sage Publications

### peer reviewed conference papers

*Reflective Authenticity for Design*, International Conference on Designing Pleasurable Products and Interfaces, DPPI09. 13-16 October 2009, Compiègne University of Technology, Compiègne, France

*Detachment and Care: craft's potential contribution to the remaking of collective life*, Making Futures, Plymouth College of Art, Plymouth, 17 & 18 September 2009

(with Dr Philip Breedon, Dr Amanda Briggs-Goode, & Brenda Sparkes) *Textiles, Shape and Sensor: Integration of Textile Design and Technology*. Futurotextiel, Brussels, November 2008

(with Dr Philip Breedon, Dr Amanda Briggs-Goode, & Brenda Sparkes) *Design Innovation: Sensors and fabrication*. 86<sup>th</sup> World Textiles Conference, Hong Kong, November 2008

*Parallels in the Evolution of Craft and Authenticity* proceedings of Crafticulation & Education International Conference of Craft Science and Craft Education 24–26 September 2008

*Reflection and Transparency: Rhythms in Experiences with Craft* proceedings of New Craft – Future Voices, Dundee 4 – 6 July 2007

*ensemble- a sound and jewellery work* extended exhibitions abstract in New Craft – Future Voices, Dundee 4 – 6 July 2007

*ensemble: embodied experiences in a sound and jewellery installation (with Michael Smyth)* British Computer Society's CREATE 2007: Creative Inventions, Innovations and Everyday Designs in HCI Conference. London, June 2007

*Plotting Affect and Premises for Use in Aesthetic Interaction Design: towards evaluation for the everyday* short paper accepted for the first volume of HCI UK, Engage, London, Sept 2006

*Crafts Praxis for Critical Wearables Design* paper accepted for Wearable Futures Conference, University of Wales, Newport, Sept 2005

*Crafts Praxis as a Design Resource* paper accepted for 5<sup>th</sup> Engineering, Product Design in Education Conference, Edinburgh, Sept 2005

*The Materiality of Wearable Computers – Craft and Authentic User Experience* paper presented at Pixelraiders2, Sheffield Hallam University, 8-10 April 2004

### position papers

(with Dr Philip Breedon, Dr Amanda Briggs-Goode) *Walking While Marching – reflections on supporting emergent post-disciplinary research*. Foresight - mapping the territory, Association of Fashion & Textile Courses, Foresight Centre, University of Liverpool, 17 & 18 November 2009

*Working with craftspeople – motivations, concepts and challenges* position paper given at Designing the Not Quite Yet Workshop, HCI UK, London, Sept 2006

*Multivalency and Socially Performative Meaning Making* position paper given at Understanding and Designing for Aesthetic Experience Workshop, HCI UK Conference, Edinburgh Sept 2005

*Visualising Social Space with Networked Jewellery* doctoral paper accepted for presentation at Space, Spatiality and Technologies, Dec 2004; URL <http://www.spacespatiality.org>

#### journal papers

*Peacocks and Wallflowers: the enactment of social visibility in wearables* paper invited for Journal of Visual Communication Volume 7, No.3, Sage, 2008

*Crafts Praxis for Critical Wearables Design* paper accepted for AI & Society Journal, Vol. 21 (4) 2007

*The Materiality of Wearable Computers – Craft and Authentic User Experience* paper accepted for publication in The Design Journal Volume 7, Issue 2. London: Ashgate Publishing. ISBN: 0 7546 4107 4, June 2004

#### articles

*Crafting the Wearable Computer*. article invited to accompany exhibition. intelligent agent Vol. 8 No. 1: Social Fabrics, Leonardo Educational Forum Exhibition, College Art Association 2008. Dallas, Texas. Available at [http://www.intelligentagent.com/archive/Vol8\\_No1.html](http://www.intelligentagent.com/archive/Vol8_No1.html).

article invited for publication on the Creative & Cultural Skills *Creative Choices* website, on the subject of “Leadership development and skills in the context of crafts, design and emerging technologies.”, forthcoming December 2007

*Distribution – craft and speckled computing* invited article for *716 craft-design*, Craft Australia's monthly news online. April 2007. <http://www.craftaustralia.com.au/716/> and at <http://www.craftaustralia.com.au/research/20070327.php>

*An Engagement with Emerging Technology* article published in Axis Dialogue online journal January 2007. <http://www.axisweb.org/diFULL.aspx?ESSAYID=47>. ISSN 1749-4990.

*Framing the Ambiguous Wearable* article accepted for publication in the online *Convivio Journal* Nov 2004; URL <http://www.convivionet.net>

#### posters

(with Dr Philip Breedon, Dr Amanda Briggs-Goode, & Brenda Sparkes) Leading Technical Textiles Research, Integration of a stretch sensor into woven and knitted structures, *Another Side of Fashion*, The Fashion for Smart Materials, Science Museum, London, 19<sup>th</sup> September, 2008

### **selected presentations**

2008

- invited speaker, de Waag, Amsterdam, September 2008
- keynote, Issues of Engagement in Digital Media Artworks and Literature Symposium, Leiden University, September 2008
- masterclass, MA Art Science, Royal Academy of Arts, den Hague, September 2008
- invited presenter, The Distance Lab, Forres, Scotland, 30 May 2008
- invited presenter, Tags and Tagging, Edinburgh University, April 2008

2007

- *Ensemble / Crafting Wearable Computing* Sheffield Hallam University, November 2007
- *Towards Materiality* Metropolitan Works, London, 11<sup>th</sup> Oct 2007
- *More Speckled Jewellery* Sixth Speckled Computing Workshop, Edinburgh University, 6<sup>th</sup> Sept 2007
- *The Distributed Wearable* WearNow Symposium, Canberra, Australia, Feb 2007 (also panelist)

2006

- *Seamfulness, Craft and Wearable Computing* The UpGrade!, New Media Scotland, Dundee Contemporary Arts, November 2006
- invited presenter, a-n Artists Newsletter Networking event, Stirling, Jan 2006

## selected exhibitions

2009

- New Media Scotland Festival Exhibition, Informatics Forum, Edinburgh University, August 2009
- Wearable fashion technology, Netherlands Media & Arts Institute, Amsterdam, July 2009
- New Media Scotland 10<sup>th</sup> anniversary event, CCA, Glasgow, July 2009
- Design Connexity, European Academy of Design conference and exhibition, Aberdeen, April 2009
- Visual Arts Scotland annual exhibition, City Art Centre, Edinburgh, Jan – March 2009

2008

- Christmas show, Peter Potter Gallery, Haddington, December 2008
- Summer Exhibition, Broughton Gallery, Scotland July – August 2008
- Fired Up! Modern Enamel Jewellery, The Scottish Gallery April 2008
- Visual Arts Scotland annual exhibition, Royal Scottish Academy, March 2007
- Social Fabrics, Leonardo Education Forum event at the College Art Association Annual Meeting, Dallas, Texas, February 2008
- Reveal, ACJ at Edinburgh College of Art, Jan – Feb 2008

2007

- invited artist at ElectroFringe, Newcastle, Australia, September 2007
- Gold Member exhibition, The Embassy, Edinburgh September 2007
- Access All Areas : new interactive work commissioned by the Travelling Gallery, Scotland, Autumn 2007
- Future Voices Celebrating Diversity: exhibition to accompany the New Craft Future Voices Conference, Cooper Gallery, Duncan of Jordanstone School of Art, Dundee, July – August 2007
- Visual Arts Scotland annual exhibition, Royal Scottish Academy, March 2007
- reSkin, ANU School of Art, Canberra, Jan 2007

2006

- C.A.J, the Museum of Culture in Kyoto (Kyoto Bunka Hakubutsukan) – Dorothy Hogg and students, Jan 2007
- interactive demonstration, Speckled Jewellery at Futuresonic, in collaboration with the Pervasive and Locative Arts Network (PLAN), Manchester, July 2006

## awards

- winner, Visual Arts Scotland Applied Arts Award 2008
- winner, Small Treasures Competition, PMC Foundation,
  - for creative use of precious metal clay, May 2007
- Scottish Gallery Award for Applied Arts, Visual Arts Scotland annual exhibition, joint winner Jan 2005

## media and other coverage

- *UPSTATE magazine*, New York, Techellery article Fall issue 2008
- *Addictlab* in *tangible.scapes* issue #29
- *Textile Techniques in Jewellery*, Ed. Sarah Keay, A & C Black, forthcoming
- *Sleek Magazine*, Still/Motion Issue, June 2008, Berlin
- *Jewellers, The Directory*, Association for Contemporary Jewellery with A & C Black, UK, 2007
- *Bon Magazine*, Sweden, issue 40, November 2007
- Subversively Discursive Digital Communities of Contemporary Craft, Courtney Lee Weida in *G.L.O.B.A.L.I.Z.A.T.I.O.N.* Ed. Arnold, A., Kuo, A., & Parsons, M., forthcoming, 2008
- Under the Skin - ANAT reSkin media laboratory on wearable technologies. Leah Heiss writing in *Craft Australia*. 28 March 2007. <http://www.craftaustralia.com.au/articles/20070328.php>
- *The Future of Technology is Wearable*. Nanovic's review of reSkin media lab. <http://www.nanovic.com.au/?a=news.events&p=52&id=268>
- ANAT's *Filter Magazine*, The Future of Wearable Technology. Issue 64, Summer 2007. [http://www.anat.org.au/pages/forumspubs/FilterArchive/Filter64\\_WEB.pdf](http://www.anat.org.au/pages/forumspubs/FilterArchive/Filter64_WEB.pdf)

- *Jewellery Unlimited*, Association For Contemporary Jewellery exhibition catalogue, 2004

## selected project funding & research grants

### **Craft Makers Award 2009**

**City of Edinburgh Council & The Scottish Arts Council**

**Project title: Migration**

**Amount awarded £609**

Work to be undertaken April – July 2009

#### **Description of project:**

Migration is concerned with group displays and the shift between individual and collective visual expression. When a group feels secure, individuals within that system are free to express strongly individual characteristics – when the group as a whole feels threatened there can be a sudden contraction of expression and homogenization of display, presenting a united and therefore stronger front to the source of danger. The award makes possible a period of aesthetic development using thermochromic inks, experimenting with mark making and the control of subtle colourways than the inks at first appear to allow.

### **New Media Scotland Alt-w award 2009**

**Project title: Aeolia**

**Research & Development Grant £2,500**

Work to be undertaken April – July 2009

#### **Description of project:**

A collaboration with product designers and textile artists exploring notions of embodiment in space and place through the creation of connected sculptural textile pieces for land and body. The project involves two interrelated forms of research: the first is applied or basic research and concerns the technology being used. As far as we are aware, this collaboration represents the first attempt to network the stretch sensor, and we are interested in combining the feedback from two sites to generate output. Our early work with the stretch sensor has presented some issues with integrating it into fabric structures and we are looking forward to focusing on some promising directions for resolving those, notably through the use of a Jacquard loom to create visually significant pattern and a fabric structure that could potentially be used to house hardware in integral pockets, while incorporating conductivity and sensing in the choice of yarns themselves. The second form of research is more theoretical in nature, and concerns concepts of our bodily engagement with the land and ideas of space and place. In combining feedback from remote land based sensors below, upon and above the earth with biological data from the individual wearers of the body pieces, the work will draw attention to different forms of engagement with the world, and emphasise the intersubjective and thus necessarily responsible role of the human actor.

### **Scottish Arts Council, 2008**

**Professional Development Grant**

**Amount awarded £10,000**

Residency currently running between January and April 2009

In conjunction with the AHRC project Past, Present and Future Crafts

#### **Description of project:**

This is an individual maker's grant focused on the practice led investigation of craft through engagement with the emerging needs of critical and functional interaction design. In collaboration with mentors in Innovative Product and Masters Design, I am interrogating the gap between technology as handheld and technology as worn. A medical aspect of the placement conversely involves collaboration with a project in which function must be paramount, challenging craft to contribute meaningfully in the creation of self monitoring health equipment for young people. In this way the two aspects of the placement complement and antagonise each other, creating reflexive tension rather than reinforcing a simplistic definition of craft practice.

### **Scottish Arts Council, 2007**

**Lottery Funding, interdisciplinary Professional Development Award**

**Amount awarded £1,500**

To fund attendance at reSkin Media Lab, Australian National University  
Organised by the Australian Network for Arts and Technology and Craft Australia  
reSkin ran for three weeks between January and February 2007

**Description of the lab and personal project:**

The practices of media arts and sound design, textile and weaving, jewellery, object and fashion design are intertwined to produce the reskin Wearable Technology Lab. This collaborative project places jewellers and fashion designers with new media artists in an intensive three week research and development lab. Sarah Kettley's *Stille* is a neckpiece which explores the boundary between intimate space and public performance. It attempts to capture that moment when we gather ourselves, perhaps find some kind of inner space, before a performative event.

**Arts and Humanities Research Council Arts and Science Fellowship, 2006**

**Project title: *ensemble***

**Amount awarded £48,996**

Project ran between April 2006 and March 2007

**Description of project:**

Ensemble is an interactive suite of jewellery to be experienced by up to ten people within a gallery environment, which provides an alternative, ambiguous style of interaction in wearable computing. It explores the issue of user control of personal information in social interactions, and highlights ways in which self-determination may take place through the medium of sound. Short narratives recorded by wearers are more or less masked by dynamic musical output, which in turn is determined by a number of factors taking place in the social interaction, including gestural, vocal, and biometric. Furthermore, the functional element of the jewellery is approached as a design material, inevitably carrying expression just as the more common visual and tactile aspects do. Thus the contemporary crafts based design process seeks to make use of the constraints and opportunities presented by the novel 'Speckled Computing' enabling the interaction, in the same way that it seeks to create fresh expressions through those materials used at the workbench.