

Impact case study (REF3)

Institution: Middlesex University London		
Unit of Assessment: 32: Art and Design: History, Practice and Theory		
Title of case study: Active Energy: Community Action Through the Arts		
Period when the underpinning research was undertaken: 2012-2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s): Dr Loraine Leeson	Role(s) (e.g. job title): Senior Lecturer in Fine Art	Period(s) employed by submitting HEI: 18 January 2012 - ongoing
Period when the claimed impact occurred: October 2013 – April 2020		
Is this case study continued from a case study submitted in 2014? No		
<p>1. Summary of the impact</p> <p>Leeson's research uses participatory arts practice to access locally held knowledge to create social and environmental change. Through the community-based research project <i>Active Energy</i>, Leeson's work has resulted in the following key impacts: (1) Increased learning and participation: Leeson collaborated with senior men's group The Geezers in Bow, East London, activating their life experience, culminative skills and knowledge to rethink technologies and better support themselves, their community and the environment. This resulted in the design and realisation of engineered solutions which utilise tidal power to produce low cost, clean energy; (2) Enhanced wellbeing, through increased confidence, self-esteem and sense of purpose for older participants in the <i>Active Energy</i> project; (3) Improved understanding, by developing new narratives around water conservation in communities in water-scarce Rajasthan, India.</p>		
<p>2. Underpinning research</p> <p>Leeson's research focuses on the role of art in social and environmental change through bringing community-based knowledge into the public domain. Set against Leeson's wider body of socially situated art practice, 'a field that she helped to pioneer' (Gregory Sholette, Queens College CUNY, USA; In: Leeson 2017, Cover Endorsement [3.1]), is the key research project <i>Active Energy</i>. It originated in 2007 as an arts-based response to research at Queen Mary University of London on the democratisation of technology, which highlighted exclusion of older people from technological development. Leeson's contribution was to work with The Geezers, a group of retired men based at an AgeUK centre in Bow, East London. The Geezers' chosen technological focus combined concerns over fuel poverty with what they saw as the obvious solution in the locality, the Thames as a source of tidal power. In 2008 this resulted in <i>GeezerPower</i>, an exhibition with a large-scale visualisation and projected interviews and The Geezers' contribution to a symposium, where they made the case for the introduction of tidal power to support riverside communities. Since 2012, Leeson's partnership with The Geezers has developed to design, build and install engineered solutions to resolve environmental issues with local impact and global relevance.</p> <p>In 2013 The Geezers' ideas relating to the production of low-cost energy from local resource, supported by engineers Toby Borland and Professor Stephen Dodds at University of East London, resulted in the design and creation of a low budget, small-scale turbine that functioned effectively in slow-moving tidal rivers. Installed on a Thames barge opposite the Houses of Parliament (October 2013), the turbine was created from readily available parts and open-source software [3.2]. This collaboration between artist, engineers and community proved transferable, with the engineers identifying its potential for locations where low-cost accessible solutions would be advantageous, such as developing countries.</p> <p><i>Active Energy</i> subsequently progressed through the AHRC <i>Towards Hydrocitizenship</i> project (2014-2017), researching the contribution of creative processes to the ways citizens related to, and took responsibility for, water in their neighbourhoods. Here, Leeson and The Geezers, with continued engineering input from Toby Borland, addressed river pollution by utilising renewable energy. Floating water wheels were developed and installed on the River Lee at Three Mills (2017) and in the Queen Elizabeth Olympic Park (2019), utilising tidal flow to drive aerators which oxygenated the water and counteracted the effects of river pollution [3.3]. The experience of The Geezers, as with many older people, is of being overlooked in terms of their perceived contribution</p>		

to society. *Active Energy* demonstrates the value of their ideas and opinions in developing solutions to environmental issues and illustrates the benefits of collaboration to harness different perspectives on shared concerns. Integral to this has been the use of inter-generational workshops and events, extending knowledge and understanding uncovered to influence the learning, thinking and action of wider social groups. For example, The Geezers have acted as mentors for secondary pupils from Bow School; and in 2019 an event in the Olympic Park brought participants and the wider community together with regional environmental policy makers to exchange ideas regarding addressing climate change.

Active Energy is a case study in Leeson's monograph *Art:Process:Change – Inside a socially situated practice* (2017), exemplifying how processes of community involvement can lead to citizen-led innovation [3.1]. Key to Leeson's methodology is collaboration with local groups where participants determine the focus of the work, in this case the generation of sustainable energy to address local need. The location of the project amongst the East London communities with which Leeson has conducted most of her practice, reflects the notion of 'situatedness' examined in her monograph, whereby deep understanding of community dynamics and place enhances the relevance and effectiveness of creative process and output. *Art:Process:Change* also describes the approach developed through *Active Energy* as one that enables a 'drilling down' into knowledge held in a particular locale, and in so doing creates solutions applicable to other situations. Art nevertheless remains the overarching discipline, creating meaning while bringing together disparate alliances to realise practical outcomes. Leeson's chapter 'Water Power' in *Water, meaning and creativity: understanding human-water relationships* (2018), recognises this value of 'unlocking community knowledge' in East London's riverside communities, where the practical reality of the Thames sustaining life has persisted for generations [3.4].

Work undertaken with social scientist Dr. Michael Buser, University of West of England (UWE) through *Towards Hydrocitizenship*, led to Leeson's participation (as Co-I) in two further AHRC projects investigating uses of art to address urgent social/environmental issues. *Jal! Cultures of Water in Rural Rajasthan* (2017-2018) explored how participatory arts practice could contribute to increased understanding of, and present solutions to, water scarcity in Rajasthan, India's driest state; and *The Art of Healing in Kashmir* (2020-2021) supports children traumatised by political events in Kashmir through puppetry and arts-based therapies.

3. References to the research

3.1 Leeson, L. (2017). [Authored book]. *Art: Process: Change – Inside a socially situated practice*, New York and London: Routledge. Listed in REF 2.

3.2 Leeson, L. (2013). [T-Other]. *Active Energy: Turbine on the Thames* - installation of a small-scale tidal turbine (8 October 2013) on the 'Tamesis Dock' barge, London SE1 7TP. Available Middlesex on request.

3.3 Leeson, L. (2017). [T-Other]. *Active Energy: Three Mills* - installation of a floating water wheel and project launch (13 May 2017) at Three Mills heritage site, London E3 3DU; and Leeson, L. (2019). [T-Other]. *Active Energy: Olympic Park* - installation of a floating water wheel and public event 20 September 2019 at Waterworks River, London E20 2AD. Both listed in REF2: *Active Energy* 2014-2020, practice as research output [T-Other].

3.4 Leeson, L. (2018). [Chapter in book] 'Water Power'. In: Jones, K. and Roberts, L. (eds.), *Water, meaning and creativity: understanding human-water relationships*, London and New York: Routledge, pp. 23-35. Available from Middlesex on request.

FUNDING and AWARDS

Since October 2013 *Active Energy* has received three awards from National Lottery via the cSPACE Trust led by Leeson. It also constituted part of the AHRC funded *Towards Hydrocitizenship* project and was recognised by the RegenSW award for Arts and Green Energy. Follow-up work in India has achieved two AHRC grants, with Leeson as COI.

- *Active Energy* (Lottery fund **£10,000** Ref. AFE/1/010444259, to the cSPACE Trust). October 2012 - October 2013.
- *Active Energy: Three Mills* (Big Lottery fund **£10,000** Ref.0010275524 to the cSPACE Trust). January 2016 - June 2017.

- *Active Energy: Olympic Park* (National Lottery Community Fund **£10,000** Ref. 0010358214, to the cSPACE Trust). May 2019 – January 2020.
- *Towards Hydrocitizenship*. (Consultant on AHRC **£1,190,036** award. Ref: AH/L008165/1 to Bath Spa University). May 2014 - October 2017.
- *Relations of Care in Rajasthan's Traditional Water Infrastructures* (later named *Jal! Cultures of Water in Rural Rajasthan*) (COI on AHRC **£47,661** Ref. AH/R003947/1) led by University of West of England, October 2017 - November 2018.
- *The Art of Healing in Kashmir* (COI on AHRC **£126,783** Ref. AH/V004263/1, led by University of West of England). July 2020 – May 2021.

Outcomes of *Active Energy* have been presented by Leeson as exemplars of collaborative community practice through invited presentations including: Keynotes for CONCA, the Catalanian Arts Council's *Building Complicities: Collaborative artistic practices*, Arts Santa Mònica, Barcelona, 30 May 2019; and Liverpool Biennial's *Community Arts? Learning from the legacy of artists' social initiatives* at The Black-e, 1 November 2015; Panels at the *Deadline Festival*, Tate Modern, London, 4 December 2015; and *Designing a Better Future* at the College Art Association (CAA) 102nd Annual Conference, Los Angeles, 15 February 2014.

4. Details of the impact

Active Energy has brought communities together to address local environmental issues, use and develop knowledge, and devise and present solutions, while enhancing well-being and providing a sense of purpose. The many beneficiaries have included older participants, school and college students and local stakeholders in Bow, East London, as well as NGOs and residents in the desert regions of Rajasthan. The three main areas of impact are:

1. Impact on learning and participation: Communities addressing environmental issues through collaborative art practice. During the impact period *Active Energy* brought together members of the Bow community with local stakeholders to develop engineered solutions to issues affecting their lives and locality. The design and realisation of technical solutions to address environmental challenges not only utilised existing skills and understanding in the community, but developed and built on these to provide a focus for discussion and debate. The Geezers (approx. 15 members) became 'local experts' on renewable energy and shared their knowledge through their website, talks, and workshops. They report how they have 'learned a lot about the environment, particularly our local rivers - not only what they can do for us but what needs to be done to keep them clean and a good habitat for wildlife. We hope that what we have done will contribute to that and serve as a model for others to follow.' They also describe how the project 'hasn't just been for us [...] we have spread the word about what we have learned and what we think should be done' [5.1a]. They regularly document their involvement in the project on their community website, *Our Bow* [5.1b] to pass new knowledge and experiences to their peers. Between April 2019 and March 2020, the website attracted 19,753 visitors, 75% over the age of 50. In addition, The Geezers have spoken at *Active Energy* launch events at Tamesis Dock (8 October 2013), Three Mills (13 May 2017) and the Olympic Park (20 September 2019), presented at a virtual symposium with University of Highlands and Islands (31 May 2017) and Canal Connections, Leeds (23 June 2017), and been interviewed for *The Environment* magazine (16 November 2018) and for the book *Culture, Communities and Climate* (ed. Richard Povall, art.earth, 2020) (17 December 2019). *The Environment* featured *Active Energy* in both its February and November 2019 editions [5.2], reporting on The Geezers' ambition to use tidal power to produce renewable energy for the local area and the challenge represented by the project to lack of involvement by older people in technological development [5.2]. In 2016, *Active Energy* was awarded RegenSW's Arts and Green Energy prize recognising 'the crucial role that creative practitioners play in challenging, deepening and broadening the energy debate' [5.3].

Stakeholder involvement in *Active Energy* indicates the wider significance and relevance of this project to discourse around environmental concerns. Each water wheel was funded by £10,000 from the National Lottery and supported by the Canal and River Trust, London Legacy Development Corporation (LLDC), and Thames21, a charity which works to protect London's waterways. The second wheel was installed (June 2019 – February 20) in a prominent position at

the Queen Elizabeth Olympic Park (run by LLDC) between the Aquatics Centre and ArcelorMittal Orbit, where it could be seen from both sides of the river by approximately 2.8 million visitors to the park. For LLDC *Active Energy* 'provided an opportunity to support a local community project focused on the climate emergency to demonstrate how the Park can also be used to trial and test smaller scale low technology initiatives.' They highlighted how it presented a way 'to help improve oxygen levels in the river and demonstrated a simple CleanTech initiative with biodiversity benefits,' and gave a 'tangible example of a community innovation initiative, demonstrating to stakeholders including the GLA how we are supporting local communities to be more climate resilient' [5.4]. The LLDC also highlighted the intergenerational aspects of *Active Energy* as a reason for their support, as it 'brought together different groups in the local community, including older people and schools.' Workshops with The Geezers helped embed knowledge from the project into young people's learning at nearby Bow School (13 science students in Jun 2019) and City and Islington College (8 engineering students on placement with Canal and River Trust in November 2019-January 2020). Bow School describe how students extended 'their knowledge about 'energy transfers'' and described the teaching materials as 'highly valuable' and how they will use processes and information from the project 'every year for the STEM activities;' with students building 'these models to enhance their problem solving, mathematical, creative and scientific skills.' The school is also incorporating the project resources into the energy topic for Key Stage 3 [5.5a]. Similarly, the City and Islington college will use 'the project templates, materials as well the workshop instructions [...] to plan future workshops with other engineering students,' reporting how *Active Energy* had given the students 'an insight into how to work sustainably within their vocational area' [5.6]. At the event to launch the water wheel at the Olympic Park, young and older participants questioned the GLA Senior Manager for Energy and Climate Change, with pupils participating 'inquisitively in the Question and Answer session enabling them to understand more about the solutions to these problems' [5.5b].

2. Impact on wellbeing: Increased confidence, self-esteem and sense of purpose for older participants. *Active Energy* was developed with members of The Geezers at an AgeUK centre in Bow, Tower Hamlets, one of the UK's poorest boroughs, where isolation of older people is exacerbated by lack of resources. The Geezers Club was established to counter loneliness and isolation, and involvement in *Active Energy* has supported this aim and provided the group with an increased sense of purpose and worth. In common with many of their peers, this group of retired working-class men felt the contribution they could make to society was undervalued and overlooked. The Geezers describe how involvement in *Active Energy* has given them a 'good reason to get together and go out and about to explore places [...] and do our research. We have met so many interesting people and feel that the project has broadened our minds as well as our horizons. Most importantly... it was something that we ourselves decided to do and have felt that it is our interest and past experience and skills that has made it all happen.' They report increased confidence and self-esteem, highlighting how 'presenting our ideas to other people and the way they have listened to us has made us feel positive about what we have to offer, even though the ideas of people of our age are often overlooked' [5.1a]. At the Three Mills water wheel launch event (May 2017), the Chief Executive at AgeUK East London, Jane Caldwell highlighted 'the value of older people's experience to the wider society, together with the benefits of creative and purposeful activities to those involved' [5.7]. Following installation of the Three Mills water wheel, seven of the group were interviewed. They reported that involvement in *Active Energy* gave a feeling of achievement, sense of purpose and well-being. They felt 'part of something' and it provided 'something to get up for in the morning.' They highlighted that the project 'didn't put people in boxes,' but rather valued what each had to offer and gave them an opportunity to have their say. One member of the group described how he was advised to get involved in creative work after enforced retirement following a brain injury. He particularly valued the purposeful nature of the project, which he said 'stopped him from vegetating' [5.8].

3. Impact on understanding: Changing narratives relating to water management in Rajasthan, India. For *Jal! Cultures of Water in Rural Rajasthan* (2017-2018) Leeson, in collaboration with Dr Michael Buser (UWE), worked with NGOs Centre for Environment and Development Studies in Jaipur (CEDSJ) and Ramkrishan Jaidayal Dalmia Seva Sansthan (RJDSS) using community-based arts to promote traditional solutions to water scarcity in India's driest state. This project was inspired by Buser's experience of *Active Energy* as part of *Towards Hydrocitizenship*, on which he was a Co-Investigator. Buser saw *Active Energy* as 'a prime example of how artists can support communities and individuals in making real change in the world and their lives' [5.9]. The project was based in the village of Jhakhoda (population 3,068), an area experiencing water challenges whose needs are not being met by modern structures for water distribution. Many experts in India advocate a return to traditional methods of water conservation such as rainwater harvesting; however, community memory of these methods had been lost and there was an urgent need to re-establish intergenerational communication. Reflecting *Active Energy*, local artists engaged with the community to both uncover and express this knowledge, using traditional cultural forms such as mural painting to which local people readily related as a means of communication. Outcomes included an artwork created as a 10ft by 22ft painted wall mural and as a large fabric scroll, containing the story of the loss of traditional methods of rainwater harvesting and the potential outcomes of their reintroduction. Created over a 10-day period, the mural became a focal point in the village. It was found that an arts-based approach 'increased discussion and engagement on issues of water management within the specific social and cultural context of the village and region' and 'inspired a shift beyond purely technical narratives and towards a deeper cultural understanding and expression of water' [5.10a]. Residents highlighted the importance of the artwork commenting that after 'seeing the painting, people will be careful with the water;' 'people will become conscious of the value of water and how to use it'; and 'when it rains, we should make tanks to collect the water and connect our homes to the tanks with pipes, and the rain water collected will be available in our hour of need' [5.10b]. Referencing the success of utilising arts in this way one participating artist noted, '[I]t is rare that somebody approaches us from this perspective that the art could contribute in this manner; mostly artists are invited [...] for aesthetic purposes, to beautify a place, but not to do this kind of communication. [...] I'm going to show pictures of this wall and show it in my village and in my city [...] it will motivate them to do it more' [5.10a]. The scroll is now used by the NGOs in other villages and 'describing its value to their outreach efforts,' the RJDSS manager said 'usually we take technical drawings which are hard for people to understand but this will make it easier for us to explain it to them in their language using these pictures. Explaining the technical with a cultural tool' [5.10b].

5. Sources to corroborate the impact

- 5.1** The Geezers Club (a) Statement from the Geezers Club; and (b) *Our Bow*, community website entries for *Active Energy*: <https://www.ourbow.com/tag/active-energy-project/>
- 5.2** *Active Energy* featured in 'The Environment' journal, February and November 2019 editions.
- 5.3** RegenSW letter confirming 2016 'Best Arts and Green Energy' award for *Active Energy*.
- 5.4** Statement London Legacy Development Corporation: *Active Energy* at the Olympic Park.
- 5.5** Bow School workshops within *Active Energy*: (a) Statement Bow School; and (b) Bow School web site entry for launch event at Olympic Park: <http://www.bow-school.org.uk/News/Year-8-Students-Work-For-Climate-Change/>
- 5.6** Statement City and Islington College about workshop within *Active Energy*.
- 5.7** Peer-reviewed journal article (2018) giving overview of *Active Energy*, with AgeUK contribution to the 2017 water wheel launch event on p.1053:
<https://www.tandfonline.com/doi/full/10.1080/14649365.2018.1534263>
- 5.8** *Active Energy*: End of grant report for Awards for All Lottery funding, 2017.
- 5.9** Statement from Dr Michael Buser, University of West of England.
- 5.10** *Jal! Cultures of Water in Rural Rajasthan* (a) Peer reviewed journal article (2020) detailing outcomes of the Rajasthan project with quotes on pp. 832, 835, 836, 839:
<https://www.wateralternatives.org/index.php/alldoc/articles/volume-13/issue-3-1/594-a13-3-12/file> (b) *Art with an Intent*: a film about the Rajasthan project. Available from:
<https://www.youtube.com/watch?v=pqOZgxVk6T0> with quotes at min. 5:51, min 6:10, min 6:27, min 6:51.