

**RESEARCH ENGAGEMENT
AND IMPACT AWARDS 2017**

FOREWORD



I am delighted to introduce these Awards to recognise and celebrate excellence in public engagement from across the University.

Our vision is to embed high-quality and innovative engagement as an integral

part of our research culture and practice at the University of Reading. The entries for this year's Awards demonstrate high levels of commitment to engaging with public audiences and clearly show the mutual benefits.

We received more than 50 entries from across the breadth of our disciplines, from large teams and small, and from researchers at all stages of their career. They included examples of working with external and international organisations, with schools, community groups, charities and NGOs as well as government bodies and the UN, with filmmakers and theatre groups, museums and cultural groups. The entries showed that our researchers are working closely with people in Reading and elsewhere in the UK, and in many other countries.

Given the range of different activities and partnerships reflected in the entries, the assessment process was exciting and challenging. The shortlisting panel deliberated hard to come up with the list of finalists. We have shortlisted 18 projects across the five categories – and we want to congratulate them all for their inspiring work.

This booklet provides a brief overview of the shortlisted projects. I would encourage everyone at the University and beyond to take inspiration from them and reflect on further opportunities to engage the public with your own research.

Professor Steve Mithen

Deputy Vice-Chancellor and
Pro-Vice-Chancellor for Research & Innovation,
University of Reading

RESEARCH ENGAGEMENT AND IMPACT AWARDS 2017

Celebrating excellence

The Research Engagement and Impact Awards 2017 aim to recognise and reward staff at the University of Reading who have achieved extraordinary things by engaging and interacting with people outside of academia to drive better understanding of research and to influence change.

The Awards are made across five categories for excellent work that aims to:

INFORM

the public about research
and make it more accessible

INFLUENCE

policy or professional
audiences and their work

INSPIRE

children and young
people with research

INVOLVE

the public directly in research
projects and partnerships

EMBARK

on engagement and impact
work early in their careers.

SHORTLISTED PROJECTS

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ED HAWKINS SPIRALLING UPWARDS

How the Climate Lab Book blog helped understanding of global climate change

Climate scientist Ed Hawkins has made a big difference to the understanding of a vital contemporary issue: the upward spiralling of global temperatures.

Dr Hawkins analysed the past 165 years of global average temperatures and created what Mashable described as 'the most compelling climate change visualisation ever seen'. Dr Hawkins' animated climate spiral was first published on his blog *Climate Lab Book*, then via Twitter, where it was picked up and discussed by leading commentators around the world. It went on to form an integral part of the opening ceremony of the Rio Olympics, where it was seen by a TV audience of more than a billion people.

The *Climate Lab Book*, a blog Dr Hawkins writes as part of his research activities, was already popular, thanks to its accessibility and engagement with scientists and members of the public, but its popularity grew exponentially

thanks to the climate spiral. The animation has been seen 3.4 million times from Dr Hawkins' tweet alone, with many millions more views via social media. Mainstream media were quick to discuss the graphic, while others who have used or mentioned the graphic include Elon Musk, Bernie Sanders and the artist Banksy. The US State Department translated the graphic into several different languages for its online webpages, and it has been used in high-profile conference presentations by senior policymakers, including the Australian Chief Scientist and the Chief Scientific Advisor for DEFRA.

Partners

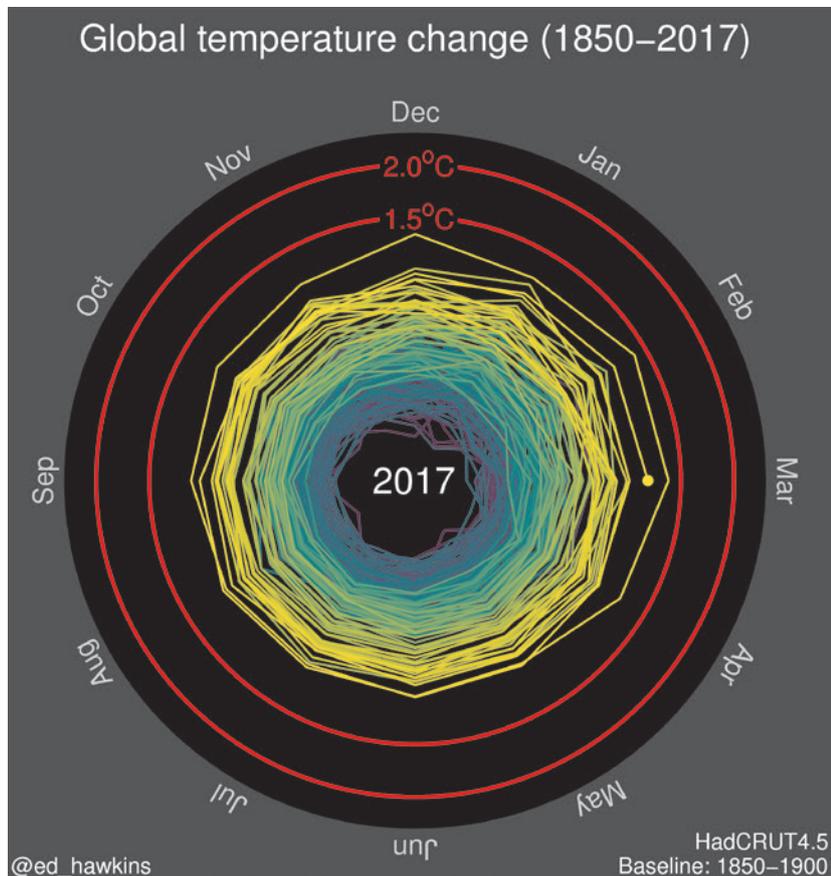
Met Office Hadley Centre | Jan Fuglestedt

Judges' comment:

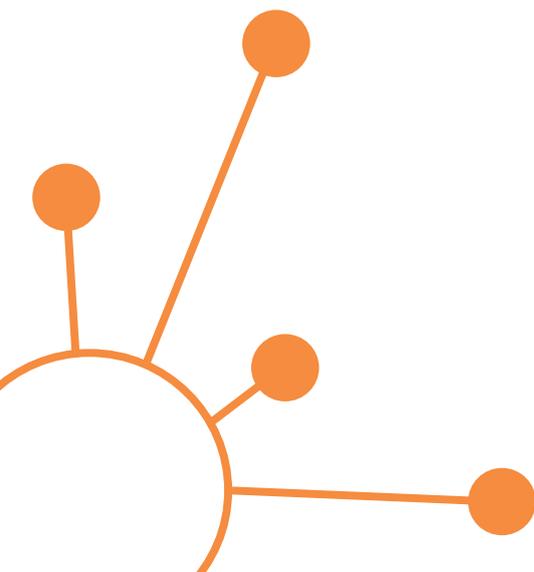
“This demonstrates a long-term commitment to communicating with wider audiences – embedded as part of research process – and how this can pay off when it goes viral in the digital world.”

“The aim was to produce an animation which captured the increase in global temperatures over the past 165 years in a novel way and which was not a traditional ‘boring’ scientific graph.”

Ed Hawkins



Dr Hawkins' animated climate spiral – improving understanding of climate change all over the world



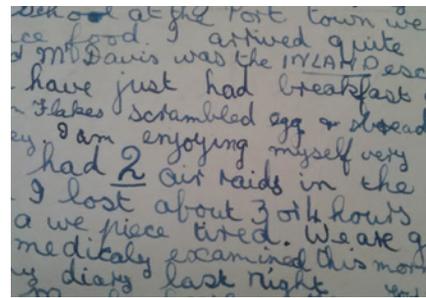
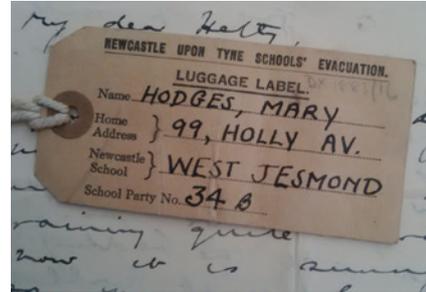
TERESA MURJAS

WAR CHILD: MEDITATING ON AN ARCHIVE

War Child, conceived by Dr Teresa Murjas of the department of Film, Theatre and Television, is a digital project about the Evacuee Archive held by the Museum of English Rural Life (MERL).

The archive consists of written memoirs, oral history interviews and research material relating to former evacuees and war-children gathered by the university's Research Centre for Evacuee and War Child Studies. The largest resource of its kind outside London's Imperial War Museum, the archive grew out of the research of Martin Parsons, a now retired academic colleague. Dr Murjas engaged with Professor Parsons' complex experience as the originator of the archive, and, in War Child, co-created an innovative web-based resource – a mixed-media 'book' dramatising Professor Parsons' story and incorporating audio material, video footage and photography, bound together with text and written stories.

At a time when many children around the world continue to be displaced because of conflict, War Child not only captures aspects of the history of the University and its archives, but also provides an international resource for the public, academics and researchers, museum and heritage professionals and mixed-media creative practitioners. Dr Murjas explores Jacques Derrida's belief that "the archive is never closed. It opens out of the future."



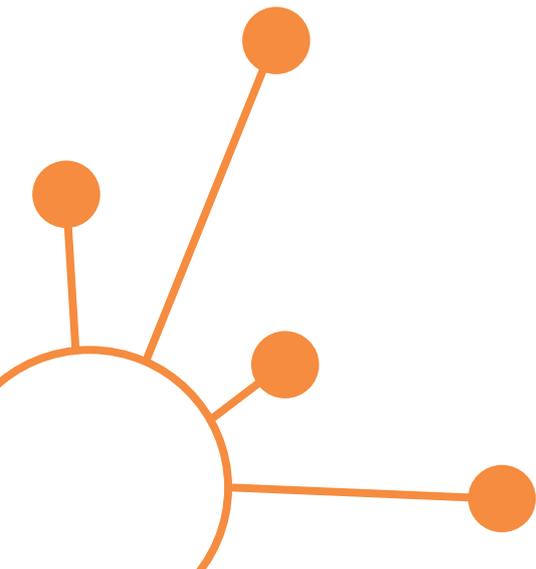
Artefacts from the War Child archive

“War Child is a story about the Evacuee Archive: how it came into being, the man who created it and what he has experienced. War Child engages with and documents the life of this archive, to lyrically evoke its qualities and – virtually – extend its scope.”

Teresa Murjas

Judges' comment:

“This was a simple and effective project working with the archive's originator to bring research to life in an elegant and engaging way.”



MATTHEW NICHOLLS

VIRTUAL ROME

Bringing alive 'the Eternal City'

Ancient Rome has come alive thanks to the work of Dr Matthew Nicholls and his creation of the world's most detailed digital model of the 'Eternal City'.

Virtual Rome, a digital modelling project involving undergraduate and postgraduate students, is now an important part of the teaching and research life of the Department of Classics. Springing from Dr Nicholls' lifelong interest in Rome, Virtual Rome's 3D historically accurate digital model can generate fly-throughs, animations, live interactive models to explore, and 360 degree panoramic images. It can be used in a huge variety of teaching, outreach, and impact contexts.

Virtual Rome was popularised by an innovative Massive Open Online Course (MOOC) on the FutureLearn platform, which allowed users to move seamlessly between the model and real-life film footage of contemporary Rome. Featuring the world's first live deployment of

3D user-manipulable content within a MOOC, it attracted thousands of learners globally, and was named by ClassCentral as one of the top ten most popular MOOCs worldwide in March 2017. Virtual Rome also won first place in the Guardian and Higher Education Academy's University Awards 2014, while Dr Nicholls is also a British Academy Rising Star Engagement Award winner, working on digital visualisations with industry and heritage sector partners. The project has been disseminated by blogs, workshops, videos, media appearances, commercial licensing and best-selling books. It is helping to popularise Classics, illustrate the educative benefits of knowledge of the ancient world, contribute to pedagogical innovation and provide humanities students with transferable skills. Overall, Dr Nicholls' work has reached millions of people worldwide.



The Roman poets Ovid and Tibullus called Rome "the Eternal City" – everyone can find out why with Virtual Rome

Partners

FutureLearn | Discovery Channel | National Geographic | Science Channel | Windfall Films | Ivy Press | Arcturus Press | Allard Pierson Museum | Guildhall Gallery

"Virtual Rome offers an immersive and unique virtual tour of what the Roman poets Ovid and Tibullus called 'the Eternal City', without even leaving your living room. Everyone is invited."

Matthew Nicholls

Judges' comment:

"The judges were fascinated to see how the team has developed a number of creative approaches to making the Classical world come alive for thousands of learners."



DEEPA SENAPATHI

BEES, PLEASE

Practical outreach to raise awareness of the importance of pollinators

How best to raise awareness of the importance of pollinators to food security? And how to ensure that threats they face as ecosystem providers are countered?

For research fellow Dr Deepa Senapathi, the answer was by hosting a number of practical outreach events combining multiple complementary projects undertaken by Dr Senapathi and her team. They have engaged in 21 public, practitioner and policy events in the past three years, all of which have enhanced the reputation of individual researchers, their research division, and the university.

Outreach events have been local, national and international, and include more than 30 interactive presentations to grower associations, beekeepers, agronomists and industry partners. Dr Senapathi's team were invited onto expert UN and EU panels, participated in working groups (not least, a DEFRA pollinator event at the 2015 Milan

Expo), made numerous media appearances, and, working with Professor Simon Potts and colleagues, showcased their research at Kew Gardens in October 2016. This major day-long event saw the 26-strong team hold exhibitions, interactive games, practical demonstrations and myth-busting sessions. Dr Senapathi and her team have also produced short video clips, hosted on the university's YouTube channel, to inform a wider audience.

Following its success in 2016, Kew Gardens will host another Pollinator Day with the university's experts in July 2017



Partners

Royal Botanical Gardens Kew | Waitrose Agronomy Group | Central Association of Beekeepers

“Our objective is to raise awareness and inform policy makers, practitioners, industry and the general public about our research findings. By doing so, we can work together to find common solutions to reduce pollinator declines – with benefits for the environment and the supply of our food.”

Deepa Senapathi

Judges' comment:

“The judges were pleased to see researchers taking their findings to the public and to farmers and using their feedback to help find new solutions.”



HELEN BILTON

EDUCATIONAL OUTSIDERS

Some projects are discrete, lasting a finite amount of time. Others are a work in progress. In the latter category is the continuing work of Dr Helen Bilton to promote the value of outdoor teaching and learning for young children.

For more than 35 years, Dr Bilton's passion for children learning through outdoor exploration has defined her career. Teachers, schools, parents and policy makers have all benefited from Dr Bilton's many research papers, books and projects, which demonstrate the centrality of the outdoor environment for young children, particularly in terms of their physical, social and linguistic development.

Books such as *Playing Outside* and *Outdoor Learning in the Early Years* have sold in their thousands, and have become essential reading for Key Stage 1 practitioners as well as trainee teachers and their tutors. Bilton has had an impact on outdoor learning projects as far afield as Canada and Portugal, while closer to home she is currently working with Reading

Borough Council to help its staff enhance the outdoor development of children's spoken language skills.

**A muddy face beneath the church of the open sky:
the best place for young children to learn**



“Thanks to a well-managed, professional outdoor teaching and learning environment, I’ve seen children learn to love reading, adopt a ‘can do’ approach, triumph over the weather, care for the natural world, challenge themselves and grow academically, emotionally and physically.”

Helen Bilton

Judges’ comment:

“The panel welcomed the ongoing reflective approach which builds on years of teaching experience to develop research which is really useful to teachers.”

NEIL CROSBY

VALUE TO THE VALUERS

Long-term valuations in the lending market secured on commercial real estate

Around the world, central banks continue to wrestle with the aftershocks of the global financial crisis of 2007–08. Crashes in property markets were isolated as a major cause and Professor Neil Crosby and Reading's Real Estate and Planning Department are having a major impact on policy and practice, working with the Bank of England (BoE) and the UK property industry in developing property valuation techniques that aid the financial stability agenda. This work is attracting attention from outside the UK and Professor Crosby is also working with RICS Europe and TeGOVA in developing guidance on implementing new models of valuation.

The work has an important objective: to stop a major downturn in property markets causing a potential collapse of the banking system, because of over-lending in boom markets secured on real estate. By working closely with the BoE and the commercial property industry, Professor Crosby is developing new methods

and models to enable lending policies to react against the cycle of boom and bust.

Professor Crosby's work has been promoted within the BoE via a consultancy contract and within industry by working on the Cross Industry Group working party on Long term Valuations. He has delivered papers and keynote speeches, promoting engagement by a multitude of stakeholders, in the UK, Ireland, mainland Europe and Australia. He is also the main author of the Cross Industry report on Long Term Valuations and his work with the BoE is published in the periodic *BoE Financial Stability Report*, commencing in December 2015.

Upon its completion, the UK and other central banks will have mechanisms for the accurate assessment of cyclical real estate markets, lenders will have better tools for assessing individual property loans and valuers will be able to provide a longer-term valuation

perspective. The wider beneficiaries are the borrowers and the taxpayers: borrowers will be less likely to be provided with inappropriate, unsustainable loans, while taxpayers will avoid having to bail out failing banks unable to survive the impact of any future property downturns.



Partners

Bank of England | Property Industry Alliance | Royal Institution of Chartered Surveyors (RICS) | European Group of Valuers' Organisations (TeGOVA)

“Real estate was at the centre of the global financial crisis, and Reading’s track record as the go-to place for real estate research for government and the industry means we are playing a key role in helping to prevent a repeat on the back of any future commercial property market major downturns.”

Neil Crosby

Judges’ comment:

“This was an excellent example of knowledge exchange between researchers and the banking industry – leading to changes in both government policy and industry guidelines.”

ANNA HORWOOD

INCREASING THE VISIBILITY OF CHILDREN'S EYE HEALTH

Professor Anna Horwood, of the School of Psychology and Clinical Language Sciences, is helping to pioneer new ways of understanding how we use our eyes together to focus on near objects. Her work with the University's Infant Vision Lab has a direct impact on the clinical treatment of patients, in particular children.

One million children in the UK are estimated to have an undetected eye condition, and most of these are due to focusing and eye alignment problems such as squint and "lazy eye". Although poor vision can have profound consequences on learning and development, how focusing, common eye problems, learning and development interact are very poorly understood.

Professor Horwood's work on ocular accommodation and convergence, undertaken since 2006, aims to explain these complex processes. She sits on national

and international committees, advisory and lobbying groups, and engages with media such as ITV, BBC radio and the local press. She has delivered keynote lectures around the world and won major international prizes, most recently being the first woman to win the Bielschowsky Lecturer International Strabismological Association (ISA) Congress, Washington award for "a strabismologist who has made outstanding contributions to the science". Most importantly, practising clinicians have benefitted, thanks to a series of retinoscopy courses in the UK and Ireland that began in 2016 and are continuing this year. These "research into practice" courses are showing how Reading's research can help clinical orthoptists understand and manage their patients differently.



A new vision: Dr Anna Horwood's work is helping to update theories of eye care that haven't been questioned since the early 20th century

Partners

British & Irish Orthoptic Society |
University of Sheffield | University of
Liverpool | Glasgow Caledonian University

"At least 10% of children will seek hospital treatment for difficulties with binocular vision, different types of squints and lazy eye, and people of all ages can develop eyestrain. Our research has led to a completely new model of understanding both typical and abnormal focusing, which is changing professional perceptions."

Anna Horwood

Judges' comment:

"We were pleased to see how the research has been embedded within a professional community, leading to changing clinical practice and improved eye health for children."

ROGER MATTHEWS HELPING IRAQ'S HERITAGE

Protecting and enhancing the cultural heritage of Iraq

Thanks to the work of Professor Roger Matthews, the rich cultural heritage of Iraq – the world's cradle of civilisation – is being helped with the protection it needs to survive.

Under the remit of the Central Zagros Archaeological Project (CZAP), along with Dr Wendy Matthews, Roger Matthews works on the ground in Iraq, enhancing skills in heritage protection among Iraqi antiquities staff. Their world-leading research into early agriculture and ancient village life in the Fertile Crescent has led to local and global public engagement, with plans underway to redevelop the Iraq Prehistory Gallery in Slemani Museum, the only fully functioning museum of its kind in Iraq. There are also plans for a site visitor centre at Bestansur, which was recently added to the UNESCO World Heritage Tentative List following its nomination by the Iraq government. The importance of Bestansur is due to its elaborate architecture, and artefacts that attest networks of more

than 1500km, and its early date – the earliest village in Iraqi Kurdistan at 7700 BC.

As President of RASHID International, a multi-national group of academics, professionals and individuals set up to promote and protect Iraq's heritage, Roger Matthews is involved in high-level engagement with officials in the Iraq government, internationally and at the United Nations, and liaises often with the global media. In this role he is co-organising major workshops and conferences, as well as contributing knowledge and expertise to the UN Human Rights Council in particular with regard to cultural rights in Iraq.

He has also worked with military planners to address threats to Iraqi sites and co-authored a UN report on the destruction of Mosul's heritage.



Roger and Wendy Matthews (left) explain their excavations at Bestansur in Iraqi Kurdistan to visiting staff and students from Sulaimaniyah Polytechnic University

Partners

Sulaimaniyah Directorate of Antiquities, Sulaimaniyah, Iraq | State Board of Antiquities and Heritage, Baghdad, Iraq | Sulaimaniyah Polytechnic University | RASHID International

“Multiple archaeological and heritage sites in Iraq are likely to have been saved from some form of intrusion or even destruction thanks to our recording of site details and alerting military target planners in Iraq and the US.”

Roger Matthews

Judges' comment:

“This is a fine example of engagement at multiple levels, often undertaken away from the limelight, but with clear results for both the local community and our international heritage.”

SIMON POTTS

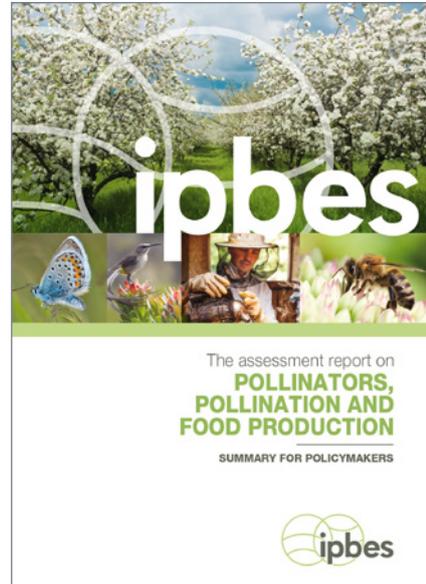
GETTING THE UN BUZZING

Shaping international policy to safeguard pollination services

For the past two years, Simon Potts, Professor of Biodiversity and Ecosystem Services, has been playing a major role in improving worldwide policies for the conservation of pollinators and their sustainable use for crop pollination. Professor Potts' work came through his co-chairing of the UN Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES).

Professor Potts co-chaired a team of 77 internationally-recognised experts to produce an 800-page landmark report aimed at scientists and technical advisors, as well as a Summary for Policy Makers, which was adopted by 126 IPBES signatory countries. The report's policy recommendations – to improve risk assessments for pesticides, increase pollinator habitat protection and better manage commercial pollinators – were adopted by all 196 signatory countries to the Convention on Biological Diversity (CBD).

Professor Potts' combined IPBES and CBD activities have benefitted policy makers, industry leaders and UK growers and suppliers, who are adopting new practices to protect pollinators. The public's understanding was enhanced via a number of events, including a flagship event at Kew Gardens that attracted 6,000 visitors. And the work continues: Professor Potts will chair an update in 2018, and is working with the UN to develop a peer-driven process whereby the global community of experts can put forward new evidence as it becomes available.



Influencing the pollinator strategies of the UK – and another 195 countries

Partner

United Nations Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)

“Our report was the first to evaluate global knowledge of pollinators, pollination and food production, the priority topic identified by IPBES signatory governments in 2013. As well as supporting decision-making by politicians and practitioners, it is great to see people continuing to interact with our science, and showing them how they can help nature.”

Simon Potts

Judges' comment:

“The judges were impressed by the levels of international collaboration achieved and the innovative approach to enable experts to share new evidence as it becomes available.”

KATE ALLEN

A FEEL FOR HERITAGE

Sensory Objects: enhancing museum and heritage sites by engaging people with learning disabilities as co-researchers

Sensory Objects started in 2012 as a three-year AHRC-funded project to make museums more inclusive by listening to, and acting on, research by people with learning disabilities. Led by associate professor Kate Allen, working with Faustina Hwang and Nic Hollinworth from the University of Reading, and Andy Minnion, director of RIX Research & Media. The project proved so successful that it now has further AHRC funding to work with RIX Research & Media and The Tower Project's Job Enterprise and Training Service, an inclusive employment agency, to co-develop STARS (Sensory, Technology & Art Resource Specialists), providing sustainable employment opportunities for people with learning disabilities to work in museums.

During its initial three years, Sensory Objects held more than 60 sensory art and technology workshops at the National Trust's Speke Hall

in Liverpool, the MERL, and the British Museum. Key to the project was engaging people with learning disabilities as co-researchers. In multisensory art and electronics workshops, co-researchers explored how the senses are used when experiencing museum and heritage sites, and then created multisensory interactive artworks that respond to equivalent objects at these sites.

Sensory Objects has helped create new working practices for people with learning disabilities, made public heritage sites more inclusive and enhanced public awareness of learning disability. Allen is also using Sensory Objects research to contribute to Sensory Palaces at Hampton Court London, a health and wellbeing programme for people living with dementia.



Rich conversations: made possible thanks to Sensory Objects and giving people with LD ownership of the creation process

Partners

Speke Hall, National Trust, Liverpool | Museum of English Rural Life (MERL) | British Museum | RIX Research & Media at University of East London | Reading College Learners with Learning Difficulties and/or Disabilities Dept | Liverpool Mencap: Access to Heritage Group | The Tower Project London | Reading Mencap Coffee Club

“The most satisfying thing about the project is seeing it realise the contributions that people with learning disabilities can make to their communities and our society generally.”

Kate Allen

Judges' comment:

“We were impressed with how the project team involved people with learning disabilities to open up new insights and options to make museums more open and inclusive.”

MARK DALLAS

BRIGHT SPARKS

Never mind changing lightbulbs – how many neuroscientists does it take to show us how our brains work? In this case, just one: pharmacy lecturer Dr Mark Dallas. Working with theatre company Filskit Theatre, on the Bright Sparks project, Dallas is helping to dispel myths about brain function, and giving children, teachers and scientists a vital insight into neuroscience.

Bright Sparks is a high-quality, interactive theatre roadshow using light and electricity to represent how our brains work. Aimed at children aged 3–7 years and their families, the show – which premiered at the Polka Theatre's Brain Waves and has toured to positive reviews around the UK – is set inside the human brain.

It illustrates the fallacy of the 'left and right brain' divide, showing that simultaneous, harmonious function is required to operate this extraordinary biological apparatus.

Dallas also helped develop a laboratory element to the show for use by teachers and, through his blog, has shared his experience and knowledge with the scientific community. He is committed to develop these and other partnerships through his work with the STEM network, pub-based national science festival Pint of Science, and leading Alzheimer's charities.



**How many lightbulbs can you change?
None, unless the right and left sides
of your brain are working together**

Partner

Filskit Theatre, Bristol

“Many people see the world of neuroscience as too complex for everyday engagement. Breaking down this perception on an individual and institutional basis will help both researchers and the wider community.”

Mark Dallas

Judges' comment:

“The panel loved the creativity and imagination used to bring neuroscience to life and make it accessible to very young children.”

GEMMA WATSON

DIG DEEP

Young Archaeologists' Club

The Reading Young Archaeologists' Club (Reading YAC) launched in January 2016 – and in just 18 months has already had a tangible impact on participants and researchers alike.

Set up by Gemma Watson and Emma Durham from the Department of Archaeology, and Charlotte Williams, of the Classics department's Ure Museum of Greek Archaeology, the club engages children and young people with archaeology and classics. Its membership consists of children ranging from eight to 15, who meet to learn about everything from ancient music and life in medieval Britain, to making prehistoric pottery, designing Roman mosaics and flint-knapping.

Children with learning disabilities are among those who regularly attend Reading YAC, which is based at the Ure Museum and run by members of the museum staff, as well as staff and volunteers from the Archaeology and Classics departments. Meetings are each shaped around a different staff or postgraduate students' research project, and feedback from parents has been universally positive, not least after children attended the Archaeology department's research excavations. For many, this was their first experience of an archaeological dig, an experience that shows them the skills needed and which, in turn, may one day help create the next generation of archaeologists.



Reading YAC helps to bring alive the ancient world, engaging children in a fun and nurturing environment

"The aim of each session is to engage and inform club members about the wide variety of world-leading research in Archaeology and Classics at Reading, within a nurturing and fun environment."

Gemma Watson

Judges' comment:

"The judges remarked on the dedication of the project team to enthuse young people about archaeology and how this had benefits across all their research and teaching activities."

LUKE BARNARD

SOLAR STORMWATCH

Helping to understand the impact of space weather by tracking solar storms

Solar Stormwatch is a project to map, for the first time, solar storms – eruptions of mass ejected from the sun's atmosphere. Led by Dr Luke Barnard and Professor Chris Scott in the Department of Meteorology, its key components are citizen science, open research and worldwide public engagement.

In 2006, NASA launched the twin STEREO spacecraft. With cameras taking images of the sun's surface, atmosphere and solar winds, the spacecraft were soon producing a huge volume of data that was challenging for scientists to analyse in detail and in a timely manner. Solar Stormwatch plugged the gap, developing web-based, real-time activities enabling the public to record storms and work with scientists.

Space weather, a natural hazard listed in the government's national risk register, is now better understood, and the project has generated a number of peer-reviewed publications. Worldwide, more than 16,000 people participate in Solar Stormwatch from 94 countries. The project is ongoing. It has led to a collaboration between the university and the Space Weather Prediction Center in the National Oceanic and Atmospheric Administration (NOAA) in the US, and the creation of new activities to answer new research questions established in this fast-moving, dynamic area of research.



Stars in their eyes: Solar Stormwatch enables the public to help scientists track, record and understand solar storms

Partners

Zooniverse | Rutherford Appleton
Laboratory | Royal Museums Greenwich

“Solar Stormwatch highlights the value of citizen science and the value in open research practices. The project has resulted in a paradigm shift in our understanding of how to physically model solar storms, with the public and scientists alike combining to push the science forward more quickly.”

Luke Barnard

Judges' comment:

“We were impressed at how the team sought to engage people all over the world with citizen science to generate high-quality research data and make science as open as possible.”

Also shortlisted
for the
EMBARK
category

MICHAEL GARRATT

MAKING NATURE COUNTS COUNT

Design and testing of a national pollinator and pollination monitoring framework

Insect pollinators such as bees and hoverflies are critical components of our natural ecosystems, providing important crop pollination services. How their populations are changing in the UK, as they face climate change, disease and agricultural intensification, is now better understood thanks to the National Pollinator and Pollination Monitoring Framework (NPPMF).

The crop pollination component of NPPMF was project-managed by Dr Michael Garratt, a senior research fellow in the Sustainable Agriculture and Food Systems Division. The project – the first of its kind – designed and tested a pollinator monitoring scheme, adopting a collaborative, stakeholder-driven approach involving citizen scientists,

academics, NGOs and the government and meeting a key deliverable of the government's National Pollinator Strategy.

The project helped consolidate the university's standing as the UK leader in crop pollination research. It engaged the citizen science community, informed land management and policy decision-making to support the conservation of pollinators, and was presented at the EU SuperB Sustainable Pollination in Europe AGM and Royal Entomological Society Pollination Special Interest Group meeting. The NPPMF also gained high profile recognition when it was cited in Science.

Pollinators are better understood thanks to the National Pollinator and Pollination Monitoring Framework



Partners

Centre for Ecology and Hydrology | James Hutton Institute | University of Leeds | Hymettus | Bumblebee Conservation Trust | British Trust for Ornithology | Butterfly Conservation

“This project delivered a fully costed, field-tested design for an effective pollinator and pollination services monitoring scheme, and underpins the new Pollinator Monitoring and Research Partnership. This was only possible with the active involvement of NGOs, academics, citizen scientists, and expert advisors to government.”

Michael Garratt

Judges' comment:

“This project shows how stakeholders, including citizen scientists, can be involved to open up new insights and options to tackle an issue which is of local and global importance.”

SALLY LLOYD-EVANS WORKING BETTER WITH WHITLEY

In 2012, Whitley in South Reading secured £1 million Big Local National Lottery Funding for community development over 10 years, as part of a national initiative that would benefit 150 disadvantaged communities. Great news – but how best to invest the money? The answers came with the help of Dr Sally Lloyd-Evans, an expert in development geography, and her team of community researchers.

Starting in 2014, Dr Lloyd-Evans worked with local residents to create a community research network, known as the Whitley Researchers. The aim was to use participatory research to empower residents to take ownership of the project, working out what would have the most tangible impact in their lives. This led, in 2015, to a report on transport issues in the area and then, in partnership with local authorities, to the introduction of a new bus route by Reading Buses.

Residents gained better access to local services such as schools, work and the hospital. Better yet, the Whitley Researchers have continued to work on developing their community, setting up a primary schools travel programme and establishing the 'Whitley for Real' partnership with Reading Borough Council to shape their strategy and help to tackle social inequalities in South Reading. Their recent project on financial exclusion will be published in 2017 and they are working with local secondary schools to build a team of young researchers to explore students' experiences of growing up in South Reading, supporting their developing aspirations.



Participatory research gives voice to local communities, helping to enhance the networks and career aspirations of all involved

Partners

Whitley Big Local | Whitley Community Development Association | Reading Borough Council

“Our research team is committed to working together in a friendly and inclusive way where everyone’s work is equally valued. This close partnership with the community also encourages people to consider studying at university, helping to change local attitudes to higher education and making a difference to residents’ lives.”

Sally Lloyd-Evans

Judges’ comment:

“This is an excellent example of researchers responding to the need of a local organisation and building a team of co-researchers to conduct research that makes a difference.”

MATT WORLEY

PUNK IN THE EAST

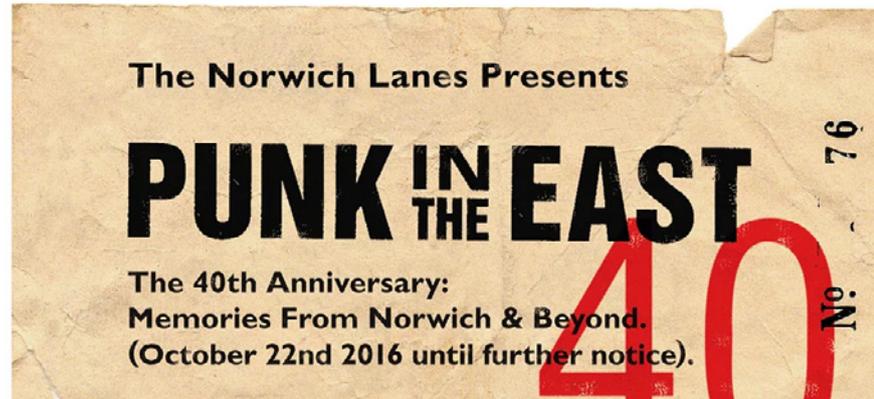
Punk in the East is a history project with a difference. Not only does it document the history of punk in Norwich from 1976 to 1984, it does so 'from below' – by enabling punks from Norwich to collate, archive and produce their own social and cultural history.

The brainchild of Matthew Worley, Professor of Modern History, Punk in the East entailed gathering material from the era to forge a history that would coincide with the 40th anniversary of British punk's emergence. Worley developed a strong social media presence and published a sell-out fanzine, *Young Offenders: Punk in Norwich, 1976–84*, featuring contributions from Norwich punks. Punk in the East went on to feature in a series of events in the Norwich Lanes area between October and December 2016, with influential punk bands such as The Ruts, Buzzcocks, Steve Ignorant from Crass and The Undertones making appearances.

Norwich Lanes also hosted a punk trail of 15 historic venues, and a Punk in the East

exhibition at the Museum of Norwich at the Bridewell proved so popular that the museum reconfigured its space to extend the display into 2017. Stephen Hansell, singer in Norwich punk band The Disrupters, spoke for many when he said the project had made him thoughtful about his place in social history: "Back then I never thought for one minute that what we were doing would one day be regarded as social history. Funny old world."

Not so pretty vacant after all: Punk in the East enabled Norwich's punks to produce their own social and cultural history



"The success of Punk in the East proved that history can be built from below, and that engaging history can be made in collaboration. The result is not 'their history' or 'my history' – but our history."

Matt Worley

Judges' comment:

"The judges were impressed by the strength of personal commitment driving the project and the powerful responses encouraged in the participants."

MAI SATO

DEATH TO HANGING

Last rites for a cruel punishment?

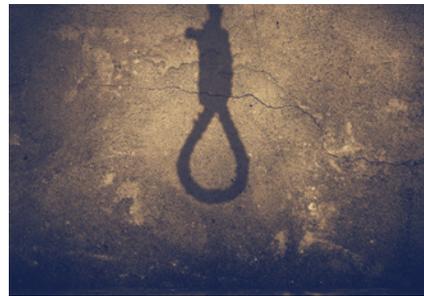
For the former UN Secretary-General Ban Ki-moon, the death penalty is a “cruel punishment [that] has no place in the 21st century.” By April 2017, more than two-thirds of the country in the world (141 countries) had abolished capital punishment in law or in practice. But in Japan, the death penalty remains lawful and prisoners continue to be executed.

Dr Mai Sato is going a long way to changing Japan’s received notions of the legitimacy of the death penalty. Dr Sato began work on her project, *Public attitudes towards the death penalty in Japan*, in 2013, testing the Japanese government’s claim that the death penalty has widespread public support with attitudinal data. Dr Sato discovered that the majority of the population base their views on limited information and inaccurate perceptions, and that the Japanese public is ready to embrace the abolition of the death penalty.

Dr Sato’s report, *The Public Opinion Myth: Why Japan retains the Death Penalty, and The Wavering Public?*, a documentary she commissioned, garnered extensive media coverage in Japan, thanks in part to her tireless efforts to build alliances and networks that would reach out to professional and policy audiences. The law may yet change in Japan – and, also, in India, Kenya, Zimbabwe and other jurisdictions that retain capital punishment, where Dr Sato has also been asked to conduct research.



Mai Sato presenting to the public



The death penalty is still lawful in Japan – but increasingly has its critics

Partners

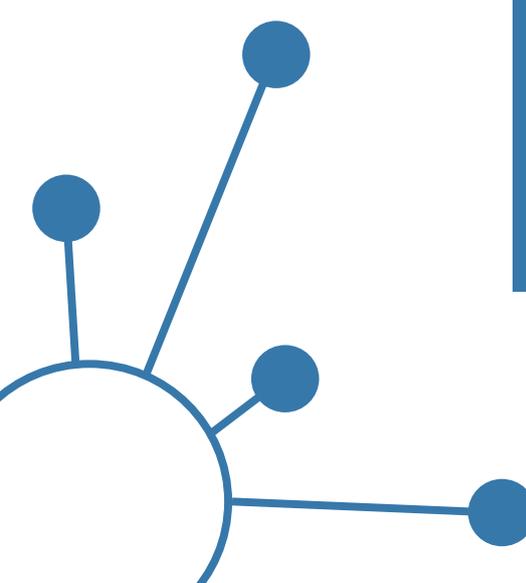
The Death Penalty Project | Center for Prisoners’ Rights

“The project aims to raise awareness in Japan that the public are kept in the dark about the death penalty and promote debate about its continuing existence, and, on a wider level, to provide abolitionist organisations with tools to mobilise public campaigns against the death penalty.”

Mai Sato

Judges’ comment:

“This work show how the work of one committed researcher can make a difference, using evidence to influence policy and practice in a very sensitive area.”



IOANNIS ZOULIAS

SIMPLE MINDS

Understanding the mechanisms behind human thought through interactive demonstrations

The complexity of the human brain is well known, as is the difficulty of translating scientific language so that the latest findings of brain research are easily understood. A project led by Ioannis Zoulias, a post-doctoral research assistant in the Biomedical Engineering division, is going a long way to making brain research more accessible.

Working with the University's Brain Embodiment Lab, Dr Zoulias designed interactive demonstrations illustrating the "what?", "how?", and "why?" of investigating the brain. The demonstrations, which included a brain-computer interface enabling the audience to control a virtual body by their thoughts alone, were hosted in settings ranging from open days, at prestigious venues including the Science Museum in London, to school presentations.

Each demonstration had a tangible impact on its audience, with participants gaining new knowledge of the inner workings of the brain, asking questions, enquiring about research and how they could forge future careers in science. The project has promoted interchange of ideas among researchers, and it is ongoing. Future demonstrations in schools and public events are planned, and the engaging demos have been used by ambassadors during university open days.



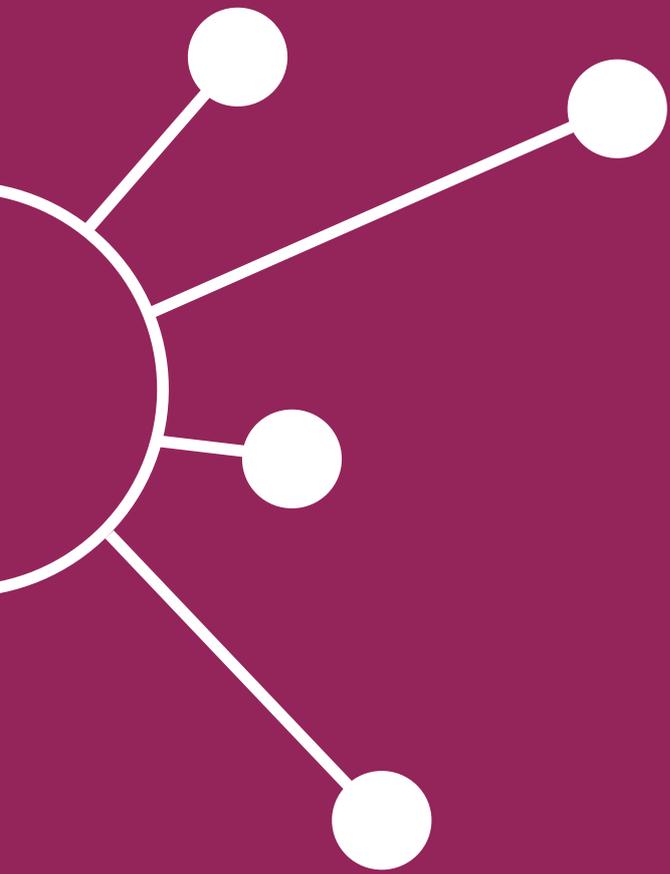
Controlling a computer with thought alone

"The project aims to illustrate the most recent academic findings on the inner workings of our brain, showcase through active experience how researchers go about making those findings, and explain how cutting-edge technology and brain research can be used for improving health conditions."

Ioannis Zoulias

Judges' comment:

"The judges were delighted to see early career researchers leading the way with interactive demonstrations, allowing the public to ask direct questions to help people understand a complex scientific subject and show why it is important and relevant to their futures."



**“ THE UNIVERSITY OF
READING IS COMMITTED TO
SUPPORTING OUR RESEARCHERS
TO ENGAGE WITH PUBLIC AND
PROFESSIONAL AUDIENCES,
TO ENSURE THAT OUR
RESEARCH CONTRIBUTES
TO GLOBAL DEBATES AND
BENEFITS THE ECONOMIC
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