



UNIVERSITY OF
LINCOLN

DISCOVER:

*Publicly engaged
research at Lincoln*



Issue 4

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Introduction

The last year has been once again affected by the COVID-19 pandemic, with restrictions on in-person and on-campus activity, and the subsequent uncertainties about how sustainable the easing of these might be, casting a long shadow. Only a few engagement activities had to be abandoned, but all have had to be planned with flexible adaptation in mind. It has been very good to see how creative and effective staff responses to the challenges of this have been. PEARL grant applications have continued to grow in number, quality and creativity, and we were also delighted to be selected as one of the hubs for the Being Human^[1] festival of humanities research in November 2021. This was our fourth year of participation in Being Human which is now a firm fixture in the University's annual calendar.



A major positive gain from the pandemic has been greatly increased experience of remote digital engagement and understanding of its benefits. It has allowed many people to participate who could not have done so in-person, and to do so in new ways – opportunities to type comments or questions into 'chat' functions on Teams or Zoom can encourage those disinclined to speak out in a crowded room, while the ability of chairpersons to preview incoming questions can enable a larger number, or a wider range, of topics to be discussed. Online engagement also offers new ways to get to know our audiences, such as by making it easier to run polls or showing where participants are based. While we welcome the restored scope for in-person activity, public engagement from Lincoln has thus emerged from the pandemic strengthened by its experience, and we are keen to move forward offering as widely as possible hybrid routes to engagement, which combine the benefits of in-person and remote participation.

Another new direction currently being developed very effectively is in cross-disciplinary working, which has generated some really imaginative ways to connect wider publics with new discoveries. In Summer 2021, as part of Pint of Science^[2], our Creative Reactions^[3] programme paired Fine Art students with researchers to create new artworks which were publicly exhibited. Just a few weeks later, the University's on-campus contribution to COP26, Climate Week^[4], whose 10 events involving 500 students and staff included an exhibition and event bringing together university artists whose work is inspired by climate crisis.

We can also be proud that our public engagement has stood up very well in wider national evaluations. The results of the first Knowledge Exchange Framework (KEF)^[5] showed public engagement at Lincoln to be ranked joint-top nationally. Our returns for the Higher Education Business and Community interactions (HEBCI) survey (in which public engagement is included under social, community and cultural engagement) show us performing strongly. And most recently, the outcomes of the seven-yearly assessment of university research quality, the Research Excellence Framework (REF), shows some of our more publicly engaged schools to have done particularly well.

It is very good to see that excellent research and public engagement are so closely associated at Lincoln, with each benefitting the other to the overall benefit of the wider world.

Professor Carenza Lewis

Professor for the Public Understanding of Research

Key references and further reading

[1] Being Human: www.beinghumanfestival.org

[2] Pint of Science: www.pintofscience.co.uk

[3] Creative Reactions: www.pintofscience.co.uk/more/creativereactions/

[4] Climate Week Summary video: www.youtube.com/watch?v=2J-gaOHjOwg

[5] Knowledge Exchange Framework: <https://kef.ac.uk/>

PEARL News

PEARL: Public Engagement for All with Research at Lincoln

The University of Lincoln's dedicated Public Engagement team, PEARL, offers support for staff and students in engaging wider publics with research. We provide access to resources, training, funding and advice, as well as leading on efforts to enhance the recognition of and capacity for public engagement with research (PER) at Lincoln. PEARL is led by **Professor Carenza Lewis** (Professor for the Public Understanding of Research), **Dr Matt Young** (Public Engagement Manager) and **Dr Gregory Frame** (Senior Administrator).

PEARL Activity Grants 2021-22

A total of **9 unique and varied projects** were awarded funding as part of the 2021-22 round of Activity Grants Funding.

Each year through the PEARL Activity Grants scheme, PEARL offers grants of **up to £1,000 to University of Lincoln staff and postgraduate students** to support the development and delivery of public engagement with research activity. The aim of this small grants scheme is to support creative new projects and initiatives that will make a targeted impact with selected public audiences through meaningful, two-way engagement.

For more details about each of this year's successful PEARL Activity Grants projects, see page 7.

Public Engagement Skills Training

PEARL's annual programme of PER skills training workshops was once again delivered online for staff and postgraduate students between May and June 2021. Over the course of 2021, we also delivered several, bespoke skills training sessions to support those with project specific public engagement needs.

As a result of the global pandemic, there was a seismic shift in the way in which public engagement activity was conducted, and with it came the development of many new tools and approaches. In response to this profound change, **we developed an additional training module for our four-part training programme which focused on digital and distanced engagement.** The module delves into best practise for online engagement, covers the wide range of tools and methods available, as well as exploring barriers to engagement in these settings, accessibility, and how to conduct effective online evaluation.

For further details about our PER skills training programme, custom training workshops and future training dates, please visit the PEARL website at www.pearl.lincoln.ac.uk

PEARL Conference 2021

Each year, **the PEARL Conference aims to celebrate and showcase the wonderful variety of engaged research activities taking place at Lincoln.** In 2021 Lincoln staff, students and guests logged onto our second ever online conference to hear about an exciting and inspiring range of public engagement projects and opportunities.

Our 2021 programme featured a range of speakers from across the University who shared the stories of their engaged research through projects funded by previous PEARL Activity Grants, to unique activities delivered as part of our larger areas of activity such as the 2020 Being Human festival. We were also joined by talented colleagues from beyond the University; Kerry Campbell, former Artistic Director of the Mansions of The Future project, and Megan Shore, Producer of the Nottingham Festival of Science and Curiosity, who shared unique insights into how they engage with local communities.

Our attendees, **67% of whom had attended previous PEARL conferences,** also took part in reflective breakout discussions where we explored how priorities, needs and attitudes to public engagement have (or haven't) changed over the course of the pandemic. As always, **we're very grateful to our attendees for their enthusiastic involvement** in our conferences. **83% said they felt that they learnt something new** from attending the conference, with **42% of attendees saying that they were highly likely to follow up ideas, contacts and conversations** from the conference.

We'd like to extend a big thank you to all our speakers for their invaluable time and insights, and to all attendees for joining us on the day.

The Growing PEARL Team

In part to advance our ongoing work in supporting and advancing PER at Lincoln, the PEARL team has expanded in 2021 with the addition of **Dr Greg Frame** who joins us in the new role of Senior Administrator. This new role will provide **enhanced support to PEARL's capacity to develop and deliver public engagement activity** and related initiatives throughout the year. Greg brings with him a wealth of experience from the world of academic research and a keen interest in organising and staging events that bridge the gap between the academy and the wider public. Greg has previously worked as a lecturer in Film Studies at various universities in the UK, and his ongoing research examines the politics of mainstream American film and television.

Grant Success

In 2021 we were delighted to have been successful in our bids to two significant public engagement project funds.

PEARL secured a total of £12,000 from Being Human and the College of Arts to run a programme of engaged activities across the city and wider region which focused on humanities research. Lincoln was one of only 4 cities selected for Hub status funding, alongside Glasgow, Coventry and Swansea. *Read more about this year's Being Human activities on page 16.*

PEARL has also been supporting the public engagement efforts of a new, expansive collaboration between the University and Doddington Hall Estate and Gardens. As Doddington Hall launched its ambitious, 100-year-long rewilding project, Wilder Doddington, researchers from all four Colleges at the University will be conducting research, student-led projects and public engagement initiatives all about rewilding over the coming years. In November 2021, **PEARL was successful in a £7,000 bid to the National Environment Research Council's Growing Roots fund** which will support the growth of the collaboration and the development and delivery of new PER activities in Doddington and Lincoln.

T +44 (0)1522 835505
E pearl@lincoln.ac.uk
W pearl.lincoln.ac.uk
🐦 @UniLincolnPEARL



PEARL Activity Grants 2021-22

The PEARL Activity Grants scheme, established in 2018, is an annual grants programme designed to support the development and delivery of creative new projects and initiatives that will make a targeted impact with defined public audiences through meaningful, two-way engagement.

In 2021, the PEARL team once again received many high-quality applications to the annual Activity Grants scheme. The increase in quality and focus of applications, despite the challenges posed by the global pandemic and related restrictions has been a true testament to the need and enthusiasm for excellent public engagement with research. In total, 9 proposals, led by academic and professional services staff from across the University were awarded funding.

Celebrating Sincil Bank: events training for community engagement

Lead applicant: Dr Georgiana Els (Associate Professor/Programme Leader, Department of Marketing, Languages and Tourism)

Co-applicants: Erin Mann, Megan Leadon (Undergraduate students) and Lucy King (Alumnus)

Purpose: The Celebrating Sincil Bank project aims to empower community volunteers by equipping them with the skills and confidence needed to develop, manage and deliver their own events to meet the needs of their community.

The PEARL Activity Grant will support the growth and continuation of previous projects which will enable us to identify the training needs of Sincil Bank volunteers and engage them with recent events management research and training through a series of dedicated workshops, designed to support the development and delivery of an event decided on by and for the Sincil Bank Community. The project also aims to foster a collaborative relationship between the University and a diverse group of local community volunteers.

Audience: The audience will be comprised of Lincoln City Foundation (LCF) community volunteers. The group's mission is "to create and provide opportunities that inspire and empower individuals and communities to develop and improve their physical, social or mental well-being". Our activities will support up to 20 volunteers in their mission to deliver community-led live events, with specialised events management training informed by recent research. Events delivered by volunteers will ultimately engage with 100-200 local residents.

Background: The project lead, Dr Georgiana Els, is a Senior Lecturer in Events Management and a team coach trained in the Finnish Team Academy (TA) model of coaching. Her work designing innovative modules around the TA philosophy and her research, published in the book "Events Project Management" by Routledge (2017), will provide the basis of the

content for the project. Engaging local community volunteers with this work will enable the project team to demonstrate the research and approaches in an applied setting whilst also meeting an important need to empower local communities to take a proactive role in managing and delivering live events that meet local needs.

Approach: Celebrating Sincil Bank – Events Training for Community Engagement, has been developed in collaboration with the local charity, Lincoln City Foundation. Our approach is to work with LCF volunteers through a series of workshops to support them in being able to better plan and deliver community events in the Sincil Bank area of Lincoln.

During the eight-month long project, the project team, including undergraduate students, will design and deliver events training to community organisers and volunteers by using the innovative Team Academy learning techniques. The training sessions will engage LCF volunteers with specialist events management research-based techniques, as well as enabling the project team to better understand volunteers' needs and how they would like to impact their community with their volunteer work and skills. Workshops will be tailored to the volunteers' needs, and will result in the production of tangible resource packs developed with direct input from participants

Evaluation: The project will be evaluated using pre-, mid- and post-workshop discussions and questionnaires, as well as collaborative white board style approaches during workshops. Also supporting the evaluation of the project will be the assessment of the type and quality of resource outputs and, longer term, the delivery of events by the LCF volunteers.



Creating an Online, Interactive Bagpipe Library for the International Piping Community

Lead applicant: **Dr Cassandre Balosso-Bardin** (*Lecturer/Programme Leader, School of Fine and Performing Arts*)

Co-applicants: **Eugen Barynshnikau** (*Programmer, NGO Students Ethnographic Association, Belarus*),
Roger Landes (*Instructor, School of Music, Texas Tech University, USA*) and **Dr Arle Lommel** (*Language Technologist, USA*)

Purpose: This project intends to bring together an international community of bagpipers around a shared, interactive archive. The online library will provide a living resource for pipers, bagpipe makers and young scholars.

By developing this online library in conjunction with the baggiping community, the project intends to increase awareness about the wide range of sources available for 130 different bagpipes, and to drastically increase access to rigorous research and archival documentation that will enhance knowledge exchange through the centralisation of resources on an international and interactive community platform.

Audience: The intended audience is the wider international bagpipe community, including scholars, musicians, instrument makers and bagpipe enthusiasts. To develop the library, we will work closely with 30-40 members of the international bagpipe community who will be selected by a call via the IBO's social media and mailing list.

Background: Since 2012 and the establishment of the International Bagpipe Organisation (IBO), Dr Balosso-Bardin has been working towards the creation of an international platform of scholars specialised in bagpipes. The biennial conferences (organised in London, Glasgow, Mallorca and Boston) have galvanised a movement of international researchers who network and share their knowledge at these events.

Young musicians, instrument makers, and newcomers to the instrument often spend much time creating private databases due to a lack of access and centralisation of information. While local bagpipers tend to have their own networks and communities, the wide range of instruments in the field (over 130 different bagpipes worldwide) means that there are often multiple barriers to access resources that can otherwise be useful to musicians and instrument makers, including language, institutional gatekeeping, or simply a lack of awareness.

Building on Dr Balosso-Bardin's work about Mallorcan bagpipes, as well as the numerous research areas brought together at the conferences, this project seeks to make expert content available and accessible to a wider community of musicians and instrument makers.

Approach: The project will employ co-creation methods to create an online, interactive, international database of bagpipe resources (books, articles, journals, CDs, photographs, personal archives, etc.). The project will be guided and supported with expertise

by an executive committee, comprising two bagpipe scholars, one professional editor and one programmer.

Online collaborative workshops with makers, musicians and scholars will be used to shape the resource archive according to the community needs, as well as to train participants to interact with the database. Participants of the workshop series will be selected from the international bagpipe community, ensuring diversity and equal representation.

After the development stages are complete, a public, community-facing launch event will be held on 10th March 2022 at the 6th International Bagpipe Conference in Newcastle. Once live, the online library will be made available to the public who, once registered on the platform, will be able to upload relevant material to the online resources. A general training workshop will be organised, supported by a user manual on the library's portal and on www.internationalbagpipeorganisation.com

Evaluation: The evaluation of the project will involve four stages:

- Initial evaluation of the project and the community's aspirations. This feedback will be collected online during the first workshop with the wider group of experts.
- Continuous monitoring involving feedback forms at the end of each online workshop session. Informal qualitative feedback during the sessions will also be gathered to collate a general database of evaluation across the duration of the project. These sessions are designed to act as conversations where the project can be amended to suit the needs of the community. Any feedback emerging from these discussions will be included to the overall evaluation of the project.
- Feedback will be sought at the launch event, collected from the wider international community to understand their assessment of the project, their hopes for it and any shortcomings they might identify.
- Final community-wide feedback monitoring the engagement with the platform and the usefulness of the library combined with quantitative data gathered from the online platform, monitoring engagement and participation.

The combination of quantitative and qualitative feedback will allow the core group to evaluate the success of the library both as a resource database and an ongoing community platform fostering knowledge exchange.



Forum Theatre and Anti-Racism

Lead applicant: **Harriet Plewis** (*Lecturer, School of Fine and Performing Arts*)

Co-applicants: **Sam Beckett** (*Artistic Director, Purple Theatre*)

Purpose: 'Forum Theatre and Anti-Racism' will aim to improve audience and participant understanding of the way in which racism is enacted in institutions and work environments. It will seek to highlight both the subtle and not-so-subtle mechanisms that underpin the continuance of racist behaviours and structures, particularly within the Academy. The outcomes of the project will be: the establishment of an Anti-Racist Student Committee which will oversee campaigning against racism in the Lincolnshire area and the development of a 'training package' that can be toured to differing work contexts in the wider Midlands area.

Audience: The Forum Theatre and Anti-Racism project will engage with both professional actors and members of the public interested in theatre and/or practical anti-racist activism.

Background: 'Forum Theatre and Anti-Racism' will be a project led by Sam Beckett and Dr Harriet Plewis. Sam Beckett is a Black theatre maker and researcher based in Derby and is Artistic Director of Purple Theatre. Together we will research and develop a series of workshop-performances that look at the ways in which racism is enacted in various institutional settings. The workshop-performances will draw on Forum Theatre techniques. Forum Theatre is a type of performance that uses legislative theatre approaches to achieve social change. It is a form of theatre that involves audience interaction and one that explores different options for dealing with a problem or issue.

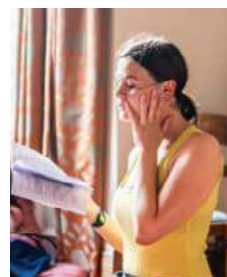
We are looking to investigate and demystify the notion of decolonisation. We are looking to provide hands-on and embodied ways into unpicking the often alienating theories and research that make up the discourse surrounding decolonisation and the legacy of structural and institutional racism that makes up a significant part of this country's context and culture. We are looking to provide accessible fora in which people can not only explore their sensibilities and biases around racism in the workplace but also begin to understand that confronting structural racism (and the way in which it is evinced in society) is not the sole province of policy makers, academics and 'intellectuals' but a very real responsibility we all have to ourselves and each other.

The research, discourse and reportage that deals with decolonisation can often come across as overly complex and involved. We are keen to use lived experience and real-life situations to communicate that there are ways of discussing and workshoping these concepts that render them more accessible than we have perhaps been used to.

Approach: 'Forum Theatre and Anti-Racism' will engage both professional actors and members of the public in live, workshoped responses to a series of provocations drawn from real life. 'Forum Theatre and Anti-Racism' will consist of a series of 'sharings' in the LPAC, Lincoln, in late November. These will happen via Zoom, if context dictates. These sharings will take the form of hybrid workshop-performances where actors and members of the public role-play a variety of scenarios in which both everyday and institutional racism are implicated. The audience and the spectators will then collaborate on ways of 'improving' the workshoped scenario so that the oppression and hurt can be both better understood and lessened. The content of the sharings (and the material that informs them) will have been researched, rehearsed and developed in collaborative sessions between actors and members of the public, prior to its presentation. In the period directly after the public sharings, the organisers, actors and members of the public will consult together on ways of extending the 'Forum Theatre and Anti-Racism' processes outwards so that they can be shared with other institutions and contexts. The R&D group will work towards creating a 'manual' for this shareable collaborative 'training package'.

Evaluation: We will aim to survey both audience members and participants a month after they have attended a sharing or worked towards the R&D period of the project. We will do this by seeking permission to retain contact details, via the Eventbrite (or similar) booking. We will ask participants whether engaging with the activity directly (or indirectly) affected their interactions with colleagues in their workplaces and whether the event has caused them to think differently about their possible responsibilities with regards race activism within their workplace.

We will also know if the project has been successful if the mooted Anti-Racist Student Committee is in a position to be convened after we have finished the work. Sam Beckett (Artistic Director of Purple Theatre) also plans to run an evaluative process with the professional actors she will engage to work on the project, in order to find out whether the work has affected the way in which they themselves operate in their working contexts.



Lincolnshire One Venues EVOLVE Conference

Lead applicant: **Julian Hanby** (*Project Manager, Lincolnshire One Venues, Centre for Culture and Creativity*)

Purpose: The EVOLVE conference will be a public conference event to mark the conclusion of the current stage of our EVOLVE music project, that links schools with arts venues and works with pupils to create live music events. The conference will be made up of three strands: Live performances accompanied by Q&A sessions with participants, training activity for people that want to upskill themselves around participatory arts activity, in particular music, and academic insight into the importance and impact that young people's participation in arts activity can have.

The aim of the event is to create links between researchers and community organisations, to increase the visibility of Lincolnshire One Venues (LOV) and to provide opportunities to share our models of working with young people and good practice. The project also aims to enhance our approach to working with young people and professionals in the arts by developing opportunities to entrench research into our ongoing participatory practice, to provide opportunities for academics and research professionals to disseminate their work, and to provide opportunities for people working in the arts to increase their delivery skills and understanding of their practice.

Audience: The project will engage with a number of audiences, including, but not limited to, researchers working in the fields of music, the arts and education, secondary school teachers and their pupils with a teaching/learning interest in the arts, participatory arts practitioners and broader public audiences with an interest in the arts and music. The conference will run over three days, with a three-hour session each day. We expect to attract between 20 and 50 people each day from across our Lincolnshire network, however online activity provides the opportunity for people from further afield to get involved. Ticketing will encourage people to attend for all three days, and we will provide bursaries for people on low budgets.

Background: The conference will offer opportunities for researchers to present their work and findings; as well as financial support we are hoping for support from PEARL to connect us to appropriate academics. Research might look at the impact of creativity on learning for autistic young people; it might focus on the importance of place-making in creative work; or it could reflect on approaches to education.

Our project aims to foster research possibilities, creating opportunities for researchers and practitioners to make connections, and for members of the public to understand the importance of our work, highlighted by academic rigour.

Amongst arts organisations there is a tacit expectation that 'participatory arts activity is good'. However, as practitioners we often overlook the value of understanding that 'good' - in quantifying it and understanding the processes that bring it about. Connecting with the research process can help us have a clearer understanding of the work's impact and can open up opportunities for the work to have a greater effect.

Approach: The EVOLVE Conference will be an online opportunity for engagement and learning, that takes place over three days, from 5th - 7th July 2021. We are working with a local production company to ensure we deliver a high-quality event - we're very keen that this isn't seen as nine hours of Zoom meetings.

We aim to present live performances by six schools, which will be broadcast either from the schools themselves or their local arts venues, which will be followed by Q&A sessions. There will be practical workshops that provide practitioners with tangible skills for delivery and that give opportunity to researchers to more clearly understand some of the challenges of delivery. And, as outlined above, there will be opportunities for research material to be presented. There will be opportunities for audiences to comment, provide feedback and ask questions.

An additional aspect of the conference is that we will be supporting the young people as they perform. Music leaders will be running sessions in the schools involved, coaching and supporting the students as they develop the music they are going to perform. The students and schools will have the opportunity to perform for new audiences, increasing their confidence and skills.

Evaluation: Evaluation will take the form of a questionnaire sent to all attendees and participants. We will be recording more anecdotal evidence such as comments and other responses online posted during the conference itself. Key impacts that we will aim to measure are usefulness of the event to the different participant groups, inspiration for further research opportunities that the event might have triggered, benefits provided by the training sessions, and overall quality and practicality of the event.

We will also monitor the longer-term impact that the event has, looking at what relationships are forged and what opportunities for sharing are developed on the back of what we deliver. This might be work developed with LOV or with other organisations or individuals that attend.

We will also assess the pupils' contribution using our baseline data, and looking at confidence, skill building, teamwork and creative expression.



Identifying the Effects of the Pandemic in Young People: a movement workshop series

Lead applicant: **Kirsty Russell** (Senior Lecturer/Programme Leader, School of Fine and Performing Arts)

Co-applicants: **Tessa Palfrey** (Senior Lecturer/Programme Leader, School of Fine and Performing Arts)

Purpose: The aims of this project are to:

- Enable young people aged 11-16 to explore their experience of the pandemic.
- Identify how the pandemic may have affected their social-emotional and psychosocial skills.
- Develop creativity, critical thinking, problem solving and communication skills through meaningful connection to arts, celebrating their creativity and interests.
- Produce a paper that discusses the experience of young people aged 11-16 during the pandemic, identifying some of the skills they may have lost and how movement workshops can be used to develop these

Audience: The project will engage young people aged 11-16 years in secondary schools in Lincoln. The participants may have an interest or previous experience of dance/ movement; however, this is not a prerequisite for participation. The workshops are designed to cater for those with and without movement experience. Due to social distancing, it is likely that we will only be able to work with between 15-20 students at one time. The workshops engage approximately 60 young people through 3 workshops. Initial data from these sessions will be used to refine the workshops with the broader aim of offering them to more schools.

Background: The research is focused on the experiences of young people during the pandemic, specifically how soft skills have been impacted/ limited by experiences of isolation during COVID-19. The project investigates how experiences have been conditioned by individual, national and collective isolations. It draws on findings from the European Empowering Dance - Developing Soft Skills 2018-2020 project, to explore the crucial role movement can play in nurturing and developing the social-emotional and psychosocial skills of young people. The research will also consider the potential long lasting consequences of the preventative measures of the COVID-19 pandemic on young people, such as on their communication, social interactions and language acquisition.

Approach: A 2-hour workshop will be delivered once to three separate schools to provide young people with the opportunity to discuss their experiences of COVID-19. Workshops will blend discussion and movement activities to collect anecdotal data, and to build a trusting relationship between researcher and audience. The movement workshops will be designed to develop creativity, critical thinking, problem solving and communication skills. In this sense, the workshops are twofold in that they work to collect reflective responses from the participants, and to start developing the soft skills that participants may not have had an opportunity to work on during the national lockdown. The workshop will be split into two parts, the first part will focus on developing a good rapport with the participants and is aimed at collecting responses to a range of questions focused on their experience of the pandemic. This will include:

Icebreaker games:

The first part of the workshop will play a significant role in introducing ourselves and our work to the participants in order to ensure that communication and comfort are at a level where the participants are likely to engage openly and honestly.

Physical Likert scales:

Using movement games participants will use their bodies to vote on a physical Likert scale in the space to indicate how they feel in response to questions about their experiences of the pandemic.

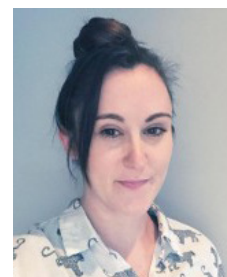
Artistic scoring:

Large rolls of paper will be streamed across the space and participants will be asked to respond to questions through writing or drawing.

Developing soft skills through movement:

The second part of the workshop is designed to use the body to address a range of soft skills through choreographic and improvisatory tasks, as teams.

Evaluation: Feedback data will be collected from the participants via the physical Likert scales, artistic scoring and developing soft skills through movement activities. At the end of each session the researchers will ask the participants to reflect on their experience of the workshop and what they have gained from the project. With consent, sessions will also be video recorded to allow researchers to reflect on the participants' engagement. The researchers will hold informal conversations with the participants' teachers to collect wider contextual feedback.



Boys Dance Too: increasing participation through positive peer relationships

Lead applicant: **Tessa Palfrey** (Senior Lecturer in Dance / Programme Leader, School of Fine and Performing Arts)

Co-applicants: **Kirsty Russell** (Senior Lecturer / Programme Leader, School of Fine and Performing Arts)

Purpose: The project looks at the link between positive role models/ peer relationships and participation in dance at key stage 3 and 4. The research prior to this focuses on students within higher education, and through practice-led research has discovered that positive peer relationships increase engagement and student satisfaction. This project seeks to replicate this research and engage a wider audience in the research area. The project involved Higher Education male dancers working with KS3 and KS4 male dancers, generating positive peer relationships through the creation of a dance film. The aims of the project are to:

- Engage public in the dance making process
- Provide a mentoring opportunity between pupils in KS3&4 from schools in Lincoln and Lincoln Boys Company
- Explore the link between positive role models/ peer mentoring and participation in dance
- Publicly highlight and encourage boys' participation in dance
- Provide an opportunity for boys in KS3&4 to experience dance
- Develop relationship between performing arts in schools and the University
- Produce a short dance film in conjunction with pupils in KS3&4

Audience: A minimum of 10 participants involved in each workshop (this can be tailored according to COVID-19 restrictions), and an additional 5 University of Lincoln students from Lincoln Boys Company. Participants will be in Key Stage 3 or 4 from schools across Lincoln and will be invited to participate via an invitation sent to their Dance or Performing Arts subject leads. The dance film will be a finished product to disseminate to schools within the city of Lincoln, which is hoped to encourage further iterations of the project. Where the number of participants is quite low, it is expected that 100s of KS3&4 students across Lincoln will have access to the dance film and documentary.

Background: In 2018 the University of Lincoln extra-curricular male dance company 'Lincoln Boys Company' was founded. Prior to this, the researcher identified male dancers as a minority group in Higher Education and sought to research ways to alleviate some of the challenges that may arise from this. The company gives members the opportunity to engage

positively with peers and provide positive role models for each other, and the wider community. Over the course of three years the findings indicate that building positive relationships with peers outside of curriculum teaching positively impacts both student experience and engagement by addressing feelings of isolation and lack of confidence, often reported by male dancers in Higher Education (Milner, 2017). This is supported by a wealth of literature pertaining to the link between peer-supported dance activities and the enhancement of subjective well-being within young adults (Mansfield, Kay, Meads et al, 2018). Where it is recognised that the low percentage of males in Higher Education is also reflected in boys in KS3&4, the aim of Boys Dance Too is to encourage participation of boys in KS3&4 dance, by creating a positive peer mentorship between participants and Lincoln Boys Company through the creation of a short dance film.

Approach: The project approach will comprise 3 interactive, site specific outdoor dance workshops run with boys in Key Stage 3&4 in order to produce a short dance film, made in conjunction with University of Lincoln dance staff and Lincoln Boys Company. The project aims to empower the creative capacity of the participant by using dance material created by the participants, under the guidance of researchers and the Company. The footage will then be organised into a dance film and shared with the participants, who will receive a copy, along with the documentation of their process. Both the dance film and documentary can be screened via the participating schools to encourage further participation in dance. It is hoped that this will also encourage a further iteration of the project next year. The proposed project has considered COVID-19 restrictions and therefore involves socially distanced, outdoor workshops and a dance film as opposed to a public performance. Should restrictions increase, these workshops could also take place in small groups online, and the footage still be used for a dance film.

Evaluation: Workshops will allow participants to offer ongoing feedback and present creative ideas to the researchers. At the culmination of the project, participants will be invited to take part in an informal discussion surrounding their experience and engagement with dance. The findings of these will be used to evaluate the project and understand its impact and potential for future public engagement. Participants will also be given the final version of the film, which may include additional documentary style documentation of the process including their informal evaluations.



Archiving Heritage: responses to change during the COVID-19 pandemic and their dynamic effects on well-being

Lead applicant: **Dr Leslie Hicks** (*Associate Lecturer, School of Health and Social Care*)

Co-applicants: **Dr Erin Bell** (*Senior Lecturer / Programme Leader, School of History and Heritage*)

Purpose: Following-on from our AHRC research involving community heritage groups, the project seeks to co-produce a total of five online workshops to address and exchange knowledge about the changing nature of archiving, archives' responses to community needs, and the ways that health and well-being of citizens are influenced by these changes. The project also aims to develop new relationships between the university, local heritage groups, local archives and associated heritage organisations, and undergraduates through the co-production of a short knowledge exchange multi-media recording, to be made available via a Wordpress project site.

Audience: Our previous engagement with heritage groups has involved five community groups from across Lincolnshire and Humberside. In the proposed project we are looking to extend our reach to include a minimum of three groups proximate to Lincoln, and undergraduates involved in heritage and social care studies. Additionally, we wish to include archivists from a minimum of three local archival institutions that serve these local groups. We anticipate engagement of approximately 18 people.

Background: Our AHRC-funded research under the Connected Communities programme, in partnership with the Heritage Lottery Fund (Hicks et al., 2014), enabled a University of Lincoln multi-disciplinary team to work in collaboration with heritage groups, where we gained a sense of the significance of identity and community to members' well-being. 'Heritage and well-being' have developed as a fertile research field, with links emphasised between 1) historic landscapes, identity and mental health (Bell et al., 2018; Darvill, 2019) and 2) heritage volunteering and well-being, including mental and physical health, identity and community (Howard 2003; Lewis et al., 2021). The definition and scope of heritage is expanding to include less tangible elements, such as music (Norton and Matsumoto, 2019). Drawing on widespread recognition of the importance of social determinants of health and well-being (Dahlgren and Whitehead, 1991; Larkin, 2011), our research base relates firmly to contemporary discussions of heritage and ways to increase well-being. Our methods reflect practice outlined in works such as Roued-Cunliffe and Copeland (2017), whose guidance on participatory heritage encourages involvement of 'citizen participants' in the preservation of heritage. By facilitating reflections on experiences, our aim is to co-construct notions of heritage and heritage resources from within the changing landscape of the pandemic.

Approach: A main focus for this project is to include experiences of changes made in response to COVID-19, from the perspectives of representatives from community heritage groups, archives and related institutions, and undergraduate students. We will centre on changes to access (what is offered and taken-up); inclusivity (notions of 'heritage'); and social and emotional well-being.

We plan to hold a series of five online co-production workshops. Three will be with discrete groups of a) local archivists and related staff, b) local community heritage groups and c) undergraduate students for whom access to archives to support their dissertation studies has been limited, due to prevailing circumstances. A fourth, mixed workshop will be held to exchange knowledge between the groups and to identify ways of sharing knowledge more broadly as outputs from the project, via multi-media routes. The fifth workshop will be geared towards co-producing an evaluation of the project.

The three discrete groups will be focused towards understanding aspects of archive use and the implications of this, in terms of contributions to knowledge, what constitutes heritage, and the meaning these hold for participants. We are seeking to establish the benefits of these areas in relation to a sense of identity, well-being and good health, for example in terms of temporality, space and place, connectedness and belonging. As attention to heritage and its potential health benefits increases (please see Section 5), we seek to explore the dynamic relationship between formally structured heritage institutions/organisations and 'users' of these 'providers', especially in times of crisis.

Evaluation: Evaluation of the success of this project will entail reflection on the co-production process, reporting on progress throughout the project and analysing what took place, along with what has been learned, with examples highlighted. The research team have experience of evaluation via co-production and can draw on a range of interactive, inclusive tools, for example focusing on communication, working together, learning together, goal achievement and sharing knowledge. We will evaluate the process benefits of knowledge co-construction within the project. We anticipate that the project may yield additional benefits in terms of contributing towards personal/professional/funding-bid development opportunities for participating individuals, groups and organisations.



Life on the Land: farming life and heritage in Lincolnshire

Lead applicant: **Matthew Bayly** (*Senior English for Academic Purposes Tutor, English Language Centre*)

Purpose: The project aims to engage a public audience with Lincolnshire's rich agricultural heritage, unpacking experiences of working, living and belonging in farming communities from the late nineteenth century to the present. It aims to explore change and continuity in experiences of farming life from the perspectives of those involved and will draw on a wide breadth of source material to help do this. The project will be conducted in conjunction with 'Mrs. Smith's Cottage' museum in Navenby, with other partners (Heritage Lincolnshire; the Museum of Lincolnshire Life; local businesses) invited to promote and collaborate in the associated engagement activity. The outcomes include a multi-faceted engagement activity; collection of oral and written testimonies of farming to add to the archival collection of the host museum; and to highlight Lincolnshire's agricultural heritage, improving local understandings of farming life.

Audience: The project intends to engage members of Lincolnshire's farming communities and local residents of all ages. Digitally, between April 2020 and February 2021, 'Mrs. Smith's Cottage' museum website had 26,451 visits; 10,115 visits and a total following of 397 people in its Twitter page; 705 total followers on Instagram and 1,100 followers on the 'Hearts of Lincs' Facebook page. On average, 160 people visited the museum each month in 2020. The physical exhibition running from October 2021 to February 2022 should expect to engage around 800 people. The school activity pack is aimed at year 5 and year 6 classes in two schools. Presuming a maximum of thirty pupils in each class, a total engagement with 120 children is expected. Using available data, the project has wide scope for online engagement and would expect to engage roughly 920 people in person.

Background: Our AHRC-funded research under the Connected Communities programme, in partnership with the Heritage Lottery Fund (Hicks et al., 2014), enabled a University of Lincoln multi-disciplinary team to work in collaboration with heritage groups, where we gained a sense of the significance of identity and community to members' well-being. 'Heritage and well-being' have developed as a fertile research field, with links emphasised between 1) historic landscapes, identity and mental health (Bell et al., 2018; Darvill, 2019) and 2) heritage volunteering and well-being, including mental and physical health, identity and community (Howard 2003; Lewis et al., 2021). The definition and scope of heritage is expanding to include less tangible elements, such as music (Norton and Matsumoto, 2019). Drawing on widespread recognition of the importance of social determinants of health and well-being (Dahlgren and Whitehead, 1991; Larkin, 2011), our research base relates firmly to contemporary discussions of heritage and ways to increase well-being. Our methods reflect practice outlined in works such as Roued-

Cunliffe and Copeland (2017), whose guidance on participatory heritage encourages involvement of 'citizen participants' in the preservation of heritage. By facilitating reflections on experiences, our aim is to co-construct notions of heritage and heritage resources from within the changing landscape of the pandemic.

Approach: An oral research project will be conducted with six individuals involved in farming, including current and past agricultural workers; family members of agricultural workers; and students and staff at Riseholme College. The outcomes of this will be combined with wider research to create a physical exhibition at 'Mrs. Smith's Cottage' museum, presented on six A2 boards. Due to the current COVID-19 situation, a contingency plan could be implemented limiting the numbers of attendees to the physical exhibition by creating a ticket booking system for entry. The research underpinning the physical exhibition will be synthesised into a Google Arts & Culture online exhibition, including audio-visual and textual content, promoted on the museum's and associated partners' website and social media. In parallel to the physical and online exhibitions, an educational activity pack will be created, aimed at children aged 9-11 years old to be delivered in the first term of the academic year 2021-22. Initially, two local primary schools will be contacted in regards delivering this: Navenby Church of England Primary School and Cranwell Primary School. Overall, the engagement activity involves four interrelated strands: oral research; a physical exhibition; an online exhibition; and an educational activity pack.

Evaluation: Surveys will be conducted with the participants of the oral research project and visitors to the physical exhibition, aiming to gauge how far the project reached its intended audience and achieved its aims. These will take the format of a close-question scale questionnaire with a final open-ended question allowing for personalised feedback. Such surveys will allow for both quantitative and qualitative evaluation of engagement. Similarly, schools using the school activity pack will be asked to provide feedback on its success via a questionnaire involving both open-ended and close-ended questions. The physical exhibition will include a participatory element, in the form of a 'post-it note' wall, where visitors will be encouraged to leave both feedback on the project and their own memories or links to agriculture. These will then be assessed qualitatively to see how far the intended audience was engaged with and judge the success of the project in reaching differing demographics. Quantitative statistical data will be kept in regards the number of people visiting both the physical and online exhibitions, allowing both evaluation of overall totals of people engaging with differing aspects of the project and discerning appropriate formats for future exhibitions.



We are Sincil Bank

Lead applicant: **Michelle Walsh** (*Senior Lecturer, School of Film and Media*)

Purpose: We Are Sincil Bank is a large-scale participatory photography project between the University of Lincoln and the Sincil Bank Community Partnership. It aims to promote social cohesion across the diverse communities in Sincil Bank through facilitating and making visible a shared identity, promoting a sense of belonging and enabling residents to have a stronger investment in and sense of place. Our primary output will comprise 250 large black and white portraits of a diverse cross-section of Sincil Bank residents, pasted as large-scale prints onto prominent outdoor locations in the area as part of a community group-action.

Audience: This project is in collaboration with the Sincil Bank Community Partnership who have worked closely for several years with resident and community groups in the area. As such, there are already strong existing connections established, enabling widespread engagement with the project. We aim to engage with and represent a broad, diverse cross-spectrum of the Sincil Bank community; long-term residents both adult and children, temporary residents (likely students) and residents from all the migrant populations that live in the area. The aim is to create 250 of these portraits, with further audience engagement with the work likely reaching most of the 6000+ residents who live in Sincil bank, as a result of the location the portraits will be exhibited. The participatory workshops will ensure engagement with and between approx. 8-16 further residents from a cross-section of the community with the resulting exhibition likely to attract yet further engagement with the project.

Background: Place-based studies in Sincil Bank have shown that residents feel a low sense of belonging to the neighbourhood and that residents from different backgrounds do not mix well together, leading to isolation and sometimes conflict. Research by Uslaner (2012) argues it is segregation within diverse neighbourhoods that undermines social cohesion, an issue compounded in Sincil Bank by a lack of green and community spaces in the area, offering limited opportunities for social interaction across different demographics and communities. This project engaged with AHRC work on 'Connected Communities', specifically the role of arts methodologies in promoting social cohesion.

Our project will promote understanding of the capacity of art to bring communities together, specifically how photographic portraits can emphasize and celebrate our shared humanity rather than our differences. By engaging our audience as co-creators throughout this process and representing an inclusive cross-section of the Sincil Bank community, we believe our project will empower residents to feel ownership over the exhibited work, to perceive themselves as active agents in building a shared community identity and sense of belonging and to facilitate a stronger investment in and sense of place for all those who take part in and engage with the project.

Approach: The We Are Sincil Bank project will engage with the local community through the following areas of activity:

- Creating portraits in outdoor spaces (and in 'Ground Lab' on Portland Street). Short statements from each participant will document their sense of belonging to the neighbourhood and perception of the area.
- Recognising from previous work that some of the communities within the area are hard to reach, we plan to create some of the portraits in areas with high footfall within the neighbourhood, ensuring that our intention for diverse engagement and representation in the project is achieved.
- An invitation to join a series of participatory photography workshops will be widely disseminated through existing resident and community channels within the area and while creating the project portraits. These workshops will support residents in visual literacy and photography skills enabling them to create a community exhibition that will run over the space of a week and will further engage members of the community as audience for this work.
- Trail map will encourage residents to visit the sites the portraits have been pasted, facilitating incidental engagement between community members.

Evaluation: Our approach to evaluation will draw on the theoretical definition and typology created by Bernard (1999). This approach measures social cohesion across two domains; the first is human activity (economic, political, and socio-cultural) and the second is social relations (values or attitudes). We will exclude economic measures as this will not be impacted by our project. PEARL funding will be used primarily to employ a specialist evaluator to lead on the evaluation of this project. The funding would be used to design, administer, and evaluate data from a series of focus groups and quantitative surveys before and after the project, drawing on Bernard's work.



Regular Events in The Spotlight

Being Human festival of the humanities 2021: Renewal

Being Human is a national festival of the humanities. A celebration of humanities research through public engagement, it is led by the School of Advanced Study at the University of London, in partnership with the Arts and Humanities Research Council and the British Academy.

In 2021, PEARL was successful in securing £5,000 of funding from Being Human, including an additional £7,000 of funding from the College of Arts to develop and run a programme of engaged activities across the city and wider region which focused on humanities research. Lincoln's programme joined Glasgow, Coventry and Swansea as cities awarded Hub status.

Taking place 18 months into the global pandemic, the 2021 festival presented a unique challenge of having to plan and develop activities that could be delivered in a safe, socially distant manner, but that could also pivot to a fully digital format if local or national restrictions changed by the time the festival delivery period arrived. Despite the challenges, we **engaged with over 300 members of the public** through 9 different events across Lincolnshire. The events were **led by the work of 12 different researchers** who worked with **8 new community partner organisations**. The variety of events offered required a lot of support and as such **created professional experience opportunities for undergraduate and postgraduate students** who helped deliver activity on the day.

Feedback from our audiences demonstrated the success of 2021's events, with **67% of attendees rating their experience as 'Excellent' and 32% as 'Good'**. When assessing the impact of the engagement on our audiences, **63% felt that taking part increased their understanding of the topic's relevance to their everyday life**, and **53% felt that taking part inspired them to find out more about the subject**. Comments from our participants also demonstrated their enjoyment and a continued appetite for similar public engagement in Lincoln:

"I'm hoping there are more events like this as well. I think it definitely brings people together. It gets you more in touch with like, your social side."

"I enjoyed it. And my little girl enjoyed it, too. She liked the art."

**Being
HUMAN**
A FESTIVAL OF THE HUMANITIES

Documenting the Domestic

Dr Jill Zhao (*Lincoln School of Architecture and the Built Environment*)

Chris Lewis-Jones (*Fine Artist, Primary*)

What impact do the spaces we inhabit have on us and our wellbeing? How do these places make us feel and how can these feelings help influence the way buildings are designed and used in the future?

To explore research from the School of Architecture and the Built Environment, lecturer Dr Jill Zhao worked with professional artist Chris Lewis-Jones [1] to create a series of unique at-home and pop-up activities designed to enable participants to probe their physical surroundings and explore how they relate to their domestic spaces through drawings, surface rubbings, words, poems and more.

For audiences at home, the team created simple activity kits, all contained within cardboard pizza boxes that attendees could request to have sent to them. In each kit were some artist essentials, a stick of graphite and some paper, and a series of prompts asking participants to create surface rubbings (known as frottage art) and other works of art inspired by the physical spaces of their home.

Complementing this was a two-day drop-in workshop, held in Lincoln's iconic Waterside Shopping Centre. Passers-by from elderly residents to young children and their friends and parents stopped by to create impressive murals using the public spaces of the shopping centre and the nearby canal as inspiration and materials! The incredible array of artwork that the residents of Lincoln produced were then displayed in the Waterside Shopping Centre, prompting even more people to consider their relationship to the physical spaces they use and inhabit.

Key references and further reading

[1] Chris Jones' work: www.chrislewis-jones.co.uk



FIELDS: farming on film

Professor Abigail Woods (*PVC, College of Arts*),
Michael McHugh, Nicole Gosling
(*School of History & Heritage*) and
Dr Beth Clark (*University of Newcastle*)

As part of an ambitious series of public engagement work, the team behind the FIELD project [1] worked with independent film makers, archivists and more to create a unique film experience that explored interdisciplinary research into life on the farm.

The FIELD is a four-year interdisciplinary project funded by the Wellcome Trust (2018-2022). It brings a team of social scientists, historians, economists and epidemiologists together to research how livestock disease is influenced by nature and culture, science and society, and the actions of humans and livestock.

The FIELDS: farming on film experience connected audiences with novel viewpoints in relation to farming in the UK. Through a series of inspiring short films, public audiences had the opportunity to learn how a blind farmer manages their farm, what sheep see from their point of view, and the story of how a 1950s farmer moved his whole farm and livestock by train on the coldest night of the year.

The evening of illuminating archive film and moving image included pieces from the collections of the BFI, Museum of English Rural Life and Media Archive of Central England about British and East Midlands farming heritage, plus new commissioned short films from documentary filmmakers and artists: Mark Jones, Shane Finan and Michele Allen.

Key references and further reading

[1] FIELD project website: www.field-wt.co.uk



Hidden Stories: from the Caribbean to Great Britain

Professor Heather Hughes (*Department of Marketing, Languages and Tourism*)
Catherine Ross and Lynda Burrell
(*Museumand – National Caribbean Heritage Museum*)

For the Being Human 2021 programme, Reimagining Lincolnshire, [1] a public history project at the University, partnered with Museumand, [2] the UK's National Caribbean Heritage Museum, to stage a pop-up Caribbean kitchen in the Waterside Shopping Centre.

Delivered by Catherine Ross and Lynda Burrell of Museumand, the Hidden Stories activities served as the Lincoln programme's headliner event. Members of the public were invited into an immersive kitchen-style set that was created to reflect key elements of the 1970s kitchens that many Caribbean families would have grown up in at that time in the UK. During each fascinating workshop, participants were treated to Caribbean music, food and snacks as Lynda and Catherine shared stories of Caribbean life, migration and culture in the UK, accompanied by rare and unique artefacts from the Museumand collections.

Audience feedback was overwhelming positive, with many describing their experience as interesting, educational and insightful. As an unexpected bonus, delivering this activity in the city's largest shopping centre opened it up to new audiences who we may have not otherwise engaged with. By setting up in a public space used by so many local people for a wide variety of purposes, the team found that many audience members dropped in on the day, as they just happened to be spending a cold November afternoon in the centre or having a day out shopping.

The event was a great way to highlight the multiculturalism not just of bigger cities like London and Birmingham, but of Lincoln itself, and how UK and Caribbean cultures have influenced each other. Several audience members were in fact Lincoln locals of dual heritage who felt that at last their presence and heritage was being recognised and validated. It gave them that satisfaction, and it gave Reimagining Lincolnshire some great new leads and contacts to explore more untold stories.

Key references and further reading

- [1] Reimagining Lincolnshire: <https://guides.library.lincoln.ac.uk/c.php?g=688178&p=4938756>
- [2] Museumand: <https://www.museumand.org/>



Making Space

Professor Louise Wilkinson (*PVC, College of Arts*),
Laura Mabbutt and **Beth Lambert**
(*Artists, Brew Projects*)

The Making Space activity was inspired by research into the Charter of the Forest of 1217, a document kept in Lincoln's medieval castle, which was an important historical document that re-established the rights of ordinary citizens to access and use the Royal Forest.

Based on this work, Professor Louise Wilkinson teamed up with creative professionals Laura Mabbutt and Beth Lambert from Brew Projects [1] to create an exciting drop-in calligraphy workshop that prompted the citizens of Lincoln to learn about the Charter of the Forest, and to explore their relationships to public spaces in their city and what they want to see more of.

Held in the Waterside Shopping Centre, the workshop blended the modern and the historical by bringing together modern perspectives to medieval crafts, using techniques and materials found in medieval manuscripts and playing with gold leaf and calligraphy to bring people's ideas to life.

Those who joined the activity shared their ideas and hopes for the city of Lincoln, expressing their desires to see everything from more public water fountains, more LGBT+ spaces, and even an ice rink!

Following the workshop, all the bold and colourful creations from the public went on display in the shopping centre, allowing more fellow shoppers to see the ideas of their fellow citizens and to consider their own wants and desires for the public spaces in their city.

Key references and further reading

[1] Brew Projects website: www.brewprojects.co.uk



Pandemics in Ceramics

Professor Carenza Lewis

(School of History and Heritage)

Jo Rollason and Mark Judd-Cooper

(Greenfield Pottery, Holbeach)

'Pandemics in Ceramics' aimed to connect people with my archaeological research into the impact of the Black Death by making medieval-style tiles commemorating experiences of COVID-19.

The Black Death was a medieval pandemic of plague which may have killed as many as 200 million victims. My research shows the impact of this on today's villages by counting the number of pottery sherds dating to before and after the pandemic. Pottery is a good proxy for people (more people use more pots, fewer people use fewer pots), and my data suggested England's population was 45% lower after the Black Death than before – a reduction of perhaps 2.5 million.

My research predated the COVID-19 pandemic, but I think it is now even more important for people to connect with it, for reasons to do with wellbeing (another area in which I am currently carrying out research). Before COVID-19, lethal infectious disease pandemics were for most of us (if we thought of them at all) distant historical events which might offer a frisson of horror but no direct connection. That is no longer true: we have now all experienced a pandemic. It's been traumatic for nearly everyone but knowing more about the experience of people before us can make us feel less alone, and also offer reassurance that human



Finished Medieval-style floor tiles created by the workshop participants

society is resilient and can recover from even the most terrible setbacks. In addition, being aware of how villages or towns we know may have been affected in the distant past can increase our senses of empathy and place attachment. All of these effects can have a positive impact on personal wellbeing - particularly important after the last couple of years.

However, it can be difficult to make this personal connection through bits of medieval pottery – they are not particularly visually impressive! So, when I saw two ceramic tile-makers were interested in helping engage publics with academic research, I instantly had a vision for how we could make this come alive. Decorated red-and-gold tiles (made, like my pottery sherds, of fired clay) were the on-trend flooring at the time of the Black Death pandemic, some simply decorative (e.g. foliage or geometric patterns), others sending messages, proudly depicting a face, a building or a coat of arms showing who had given money to the church, or spelling out messages, such as Titchfield Abbey's dining room urging monks to remember the poor as they ate. My idea was for people today to connect with the Black Death research by designing their own medieval-style tiles commemorating their COVID-19 pandemic. Once completed, all the different tiles would be combined in a single floor as a commemoration of our pandemic.

The collaboration with Greenfield Pottery [\[1\]](#) was a rich learning experience on both sides as we worked out how to make this idea feasible. Medieval tiles were mass-produced using hand-carved wooden patterns stamped into clay squares to create a depression which was filled with a different coloured clay. Our participants, with time to create one tile only, would have to carve their one-off designs out of the clay by hand and keep their design simple enough to survive firing.

The results were simply amazing, telling COVID-19 stories in a medieval style. Some depicted new activities which became so routine – hand sanitising, elbow bumping, mask wearing, clapping for carers, working from home. Others showed activities which had helped people get through – knitting, baking, dog walking, staying at home, connecting with friends and even sharing houseplant care advice via smartphones. Some acknowledged the NHS in letters or rainbows, others remembered the struggle, showing a skull wearing a mask or a cracked egg trapped in a house. Some designs echoed medieval themes – an abbey visited during daily lockdown walks, or a flower with coronaviruses in the corners. Some tiles depicted complex narratives – a fishmonger whose reading during the pandemic inspired them to enrol for a university history degree; a gardener who'd helped connect people in their community while distributing their asparagus glut door-to-door; a walker who noticed a pile of stones added to each day by people they never saw, but connected with by themselves, in turn, adding stones each day.

As well as generating remarkable imagination and artistry which really did connect people with my research, the workshops were personally enriching. Analysis showed they

offered a combination of activities the NHS recommends for wellbeing: mindfulness, as people became absorbed in realising in clay the ideas they had in their heads; connecting with others, as people exchanged the stories behind their designs and shared the common experience of creating a tile; giving, as the tiles will create a powerful commemorative display for the future; and learning, as people gained new knowledge about a very different pandemic.

Key references and further reading

[1] Greenfield Pottery: <https://greenfieldpottery.co.uk/>



Printed Landscapes

Trevor Elvin

(Lincoln School of Architecture and the Built Environment)

Research exploring new ways of engaging with ideas around place-making, and ownership of public space, using existing space as a tool to promote and improve social cohesion in the Sincil Bank area of Lincoln.

The workshops with public exhibition were a collaboration between staff and students from the School of Architecture and the Built Environment working with children from Bishop King Primary School and St Peter at Gowts Primary School, as well as the Sincil Bank community.

Bringing together communities and cultures, the work asked the Sincil Bank community to engage and connect with their surrounding built environment and reinforce ownership over their physical space. Work encouraged residents to look at their environment in a different way and actively engage in framing how and what their spaces could be used for. The project outputs include a public exhibition of the work that has been produced, feeding into a larger live public space gateway proposal for community consultation.



Renew: solutions in science fiction

Alex Lewczuk

(School of English and Journalism)

Following from my consideration in 2020 of the similarities and differences between the fictional world of James T Kirk in Star Trek and the historical explorer James Cook, it was felt that continuing the theme of 'future history' would also serve as a fruitful area for discussion. Acknowledging the realities of the pandemic, the platform was extended using Zoom, enabling people from across the globe to contribute.

It was particularly pleasing to be able to discuss a pair of significant entries in American cinematic history – *Soylent Green* (1973) and *Logan's Run* (1976) - with input from Wales, New York and San Diego, as well as locals from Lincoln, and this led to a lively discussion after the initial presentation had been delivered.

Previous interviews with surviving stars and artists from both films that featured as part of a weekly podcast series [1] opened a useful pathway to evaluate how both dystopian SF texts from the 1970s continue to resonate fifty years later, with themes relating to overpopulation, food production, artificial intelligence, and the experience of aging within society.

The notion that contemporary parables can engage with 21st century challenges was woven throughout the presentation. In keeping with the environmental theme of both films, the event employed Zoom as a technological aid to achieve carbon neutrality. Attendees from North America were therefore happily accommodated in either late morning or early afternoon time zones.

Given the need for universities to be outward, public-facing institutions in the 21st century, it was particularly gratifying to have one of the co-founders of the prestigious and award-winning 'Native Voices at the Autry' from the Autry Museum of the American West in Los Angeles [2], and Jean Bruce Scott, star of the 1980s television series *Airwolf & Magnum P.I.*, present in the online audience. The fact that the response from both this area and one of the premier contemporary musicians from New York was so positive was also highly gratifying, as indeed was the participation of one of the UK's leading SF media magazine writers from *Starburst* magazine.

In summary, a very enjoyable and rewarding event and perhaps also one which can serve as a template for how *Being Human* continues to be one of the key events for raising the profile of science across time zones and continents.

I've already had several interesting suggestions for areas which could be explored in 2022, such as the centenary of Karel Capek's *R.U.R.*, the play that introduced the word "robot" to the English language, and science fiction as a whole.

Thanks also to Dr Matt Young for ensuring the technology functioned flawlessly.

Key references and further reading

[1] Resonance Rewind podcast series: <https://southsidebroadcasting.podbean.com/category/resonance-rewind/>

[2] Native Voices, Autry Museum: www.theautry.org/events/signature-programs/native-voices/about-native-voices

Creative Reactions

Dr Matt Young (PEARL),
Dr Kay Ritchie (School of Psychology) and **Harriet Plewis** (School of Fine and Performing Arts)

Creative Reactions [1] is a unique branch of the national Pint of Science festival [2]. For Creative Reactions, researchers from a wide variety of fields are paired with artists who collaborate with each other to create extraordinary artworks based on research concepts.

The University of Lincoln has taken part in the Pint of Science festival since 2019, and for the first time in 2021, we joined cities such as Cambridge, Coventry, Leeds, London, Manchester, Nottingham, Sheffield and Southampton in bringing Creative Reactions to the people of Lincoln and beyond.

For Creative Reactions Lincoln, we paired 7 fascinating Lincoln researchers with 7 of our highly talented Fine Arts undergraduate artists who together produced



Disconnected Realities e-zine by Naomi Jackson
based on the work of Professor Mo Ray

some incredible works exploring subjects such as human conflict, nursing, neuroscience and more. To coincide with the national Pint of Science festival, an online exhibition [3] of the works was launched in May 2021 which enabled anyone with an internet connection to explore the illustrations, sculptures, paintings, sound and video pieces and the research stories behind them. Following the digital exhibition, we partnered with the Lincoln Central Library to run a free, six-week physical exhibition of the works, right in the heart of the city.

Feedback from the staff and students involved in the project highlighted how valuable they found the experience, and as such we hope to be able to run the project again in 2022.

Key references and further reading

- [1] Creative Reactions website:
www.pintofscience.co.uk/creativereactions
- [2] Pint of Science website: www.pintofscience.co.uk
- [3] Creative Reactions Lincoln online exhibition:
www.creativereactions.blogs.lincoln.ac.uk



Resource Wars by Rebecca Jarman
based on the work of Dr Bino Majolo

Tin Heart

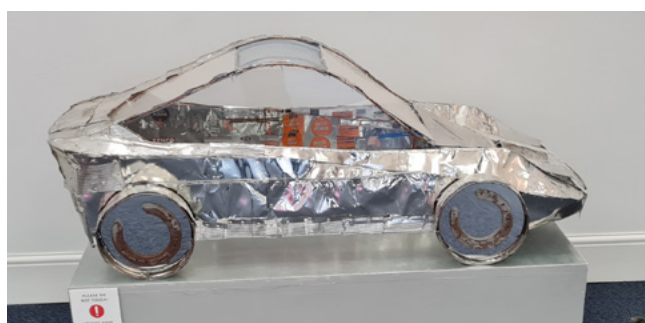
Samantha Salisbury (*Undergraduate student, School of Fine and Performing Arts*) Based on the research of **Dr Jose Gonzalez-Rodriguez** (*School of Chemistry*)

Having started university while still in the midst of the pandemic, it was difficult to re-enter the headspace of being creative. When the opportunity arose to collaborate with a researcher, I saw this as a valuable opportunity to regain some of my lost inspiration. Being able to discuss their current research, projects and ideas led to a sudden rush of creativity. I remember specifically landing briefly on the topic of stars, and learning stars never truly die as they create new life which I found to be rather beautiful.

Working with research based on humanity's tendency to mass-produce, recycle inefficiently (especially metals), and the effects this has on the planet, certainly made me realise how easily we could become more sustainable. While creating 'Tin Heart', I ensured each material was recycled. This, along with the accompanying text, was to inspire viewers to consider their own impact on the Earth through something that was fun and interesting to look at for everyone. Knowing my creation was to be shown to members of the public encouraged me to create a piece that was accessible to anyone, not just those with an art or science background. I believe art can have a powerful impact on the world and the people in it when done in a way that provides equal opportunity to all.

Working with recycled metallic materials was a new experience for me. It allowed me to grow as an artist, and to include a metal sculpture in my most recent project. As metal is a relatively difficult material to work with, I developed a multitude of skills that I will carry for the rest of my life.

Creating work for the Pint of Science festival was an invaluable opportunity that not only helped reinspire me, but also helped me gain skills that I will be able to implement in many aspects of my life. I am hopeful that the artwork created was an inspiration to better ourselves as a species to protect the planet and each other.

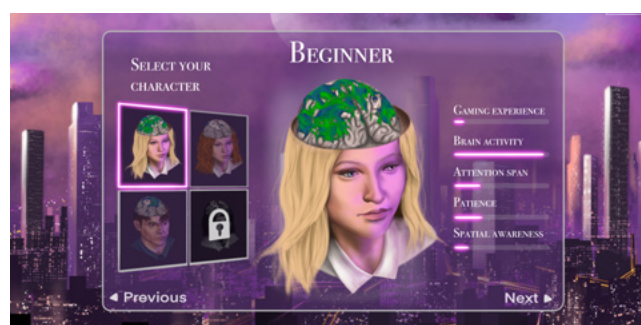


The Brain Game

Katie Watson (*Undergraduate student, School of Fine and Performing Arts*) Based on the research of **Dr Julia Foecker** (*School of Psychology*)

As a growing artist with a limited number of strings to my bow, I chose to get involved in the Creative Reactions project as a way to build both my confidence in working with others outside of my field, and my experience with interdisciplinary work.

The researcher I was paired with, Dr Julia Foecker (School of Psychology), specialises in the effects of action video games from a neuroscientific perspective, a subject related to a field of work that I am particularly interested in exploring as a future career prospect. As such, this pairing was perfect in that it allowed me to apply my art to a field of interest in such a different and unique way.



The thought of taking a very specific piece of research and turning it into something visual was a daunting prospect to start with as it was so different from anything I had done before, but as our shared ideas started to take shape each week it filled me with excitement at the prospect of updating my researcher on our progress and of the final outcome as a whole.

Working with Julia further taught me how to translate abstract concepts and ideas into my own style of artwork and something which is also understandable to the general public, and gave me confidence to believe that people are interested in my work and how I see the world through art. This project and the variety of its final exhibition pieces has reassured me that every style of art is valid and powerful in its delivery, which in turn has since encouraged me to share my work beyond the University and get involved in other local exhibitions and group projects.

It was truly an honour to bring Julia's fascinating research to life and I thoroughly enjoyed working with her. I sincerely hope that more artists and researchers can get involved with Creative Reactions in future, as it is an invaluable artistic experience as well as an incredible way to promote the important research being done today.

Engaging with Agri-Tech at Fresh Produce Consortium Future 2021

Marie Daniels (*Commercial Relationships Manager, Lincoln Institute for Agri-Food Technology*)

The Lincoln Institute for Agri-Food Technology (LIAT), in conjunction with the Fresh Produce Consortium (FPC), hosted the FPC Future event on 4th November 2021 focusing on future technology, including robotics and automation and in horticulture.

The event, which took place at the Lincolnshire Showground Epic Centre, has firmly established itself as the agri-tech event for the fresh produce and flower industry - comprising an exhibition, conference, working displays and tours of the University's specialist facilities at its Riseholme Campus.

In excess of 1,000 people participated (attendees and exhibitors).

The packed schedule included eight conference sessions covering pre-and-post farm robotics and automation, data

driven technologies, plastics and packaging, supply chain waste, carbon supply chains, vertical farming and sustainability.

The University exhibited in both the FPC Future and Careers areas, and attendees explored the University's research including the ICaRE4Farms project.

Attendees were keen to learn about the latest research in shaping the agriculture and horticulture sector.

Tours of the University of Lincoln's Riseholme Campus provided a fantastic opportunity for visitors to see these technological developments - including the robotic harvesting of strawberries, a state-of-the-art refrigeration unit, and various other facilities supporting projects in artificial intelligence, robotics and engineering.

The event and tours were also attended by Jo Churchill MP, Parliamentary Under Secretary of State at the Department for Environment, Food & Rural Affairs, who was impressed by the University's transformative innovation in agriculture.



Pint of Science Goes Virtual... Again!

Dr Tessa Flack (*Senior Lecturer, School of Psychology*)

I think I speak for us all when I say that the thought of 2021 brought a glimmer of hope for us all. With a gradual relaxation of the restrictions, the Lincoln Pint of Science team waited with anticipation to find out if we would be able to go ahead in person or online. When the news came that the festival would be online again, we were a little disappointed, but from our experience in 2020, we knew we could make it a great success in 2021!

Pint of Science is an international festival of science, aimed at taking researchers out of their institutions and into the wild..... their local pub! Normally the festival is held across three nights in May, with cities across the UK and the world hosting talks in their local pubs. The festival aims to bring together researchers and members of the public in a relaxed environment, outside of mysterious laboratories and daunting lecture theatres!

As with most activities, 2020 saw Pint of Science move. After our initial apprehension (not more Zoom meetings please!), the Lincoln Pint of Science team ventured boldly into the world of live streaming. One very successful event later, and we found ourselves volunteering to run a full programme of virtual talks for the 2021 festival. With Dr Kay Ritchie at the helm as our Lincoln

Pint of Science Team Leader and show host, and Dr Tessa Flack, Deputy Team Leader, as show producer and all-round technical whizz, we recruited 6 speakers from across the University who went live on YouTube to showcase their research.

Our first show, "The Earth's resources and us" [1], had talks from Dr Jose Gonzales-Rodriguez (School of Chemistry) and Dr Bonaventura (Bino) Majolo (School of Psychology). Jose spoke of the benefits of recycling valuable metals from waste, and Bino talked about what role our planet's natural resources play in competition and war.

Our second show "Your brain and you: from video games to cognition" [2] was a fascinating insight into the brain. Dr Julia Foecker (School of Psychology) put action video games in the spotlight, and told us about the neuroscience behind video games research. Dr Petra Pollux (School of Psychology) talked to us about the Cognitive Daisy [3], an innovative assessment tool used to help healthcare staff get an instant snapshot of the cognitive status of older adults, such as those with dementia, to help ensure the highest quality of care.

Our final show "Health and society, from social care to nursing" showcased Professor Mo Ray and Alexandra (Alex) Carlin from the School of Health and Social Care. Mo provided a thought-provoking talk on the issues



surrounding self-funded care for older people. Alex got us all thinking about the best form for nurse training, and the public perception of nurses. Definitely a timely topic!

We had fantastic audiences on all three nights. Audience members got to ask questions of our speakers by posting comments in the YouTube chat. Due to the online format, we were able to engage audiences from all over the world. People from as far as Portugal, Brazil and Israel got to see the exciting research that's taking place at the University of Lincoln! The talks are all still available to view on YouTube [5], and at the time of writing, have almost 1400 views! If you'd like to watch the shows, you can find the links below.

As well as the live shows, we also got involved in Creative Reactions for the first time in 2021. Creative Reactions is the science-meets-arts branch of Pint of Science, encouraging collaboration between artists and scientists to showcase research creatively. Seven of our speakers were paired with seven Fine Art undergraduate students. Coordinated by Dr Matt Young (PEARL) and Harriet Plewis (School of Fine & Performing Arts), the students worked with the researchers to understand their work and produce their own creative reaction to the research. This produced an amazing variety of artistic

responses, ranging from a bubble of air to a sculpture of a car made from recycled metal! We were lucky enough to be able to display the Creative Reactions pieces in an exhibition held in the Lincoln Central Library. If you missed out on the physical exhibition, you can still take a look at the amazing pieces via our Creative Reactions online exhibition [5].

We are already starting to plan for 2022, which as things stand, is a return to the full in-person festival. We have already recruited 18 wonderful volunteers from across the University to give talks, spread across 3 pubs and 3 nights. Keep your fingers crossed for us!

Key references and further reading/viewing:

- [1] The Earth's Resources and Us: www.youtube.com/watch?v=wQkjndbfPEA
- [2] Your Brain and You: From Video Games to Cognition: www.youtube.com/watch?v=YNZUxK9Qs8U
- [3] The Cognitive Daisy: www.cognitivedaisy.co.uk
- [4] Health and Society: From Social Care to Nursing: www.youtube.com/watch?v=xdFqR0FAChc
- [5] Creative Reactions online exhibition: creativereactions.blogs.lincoln.ac.uk/exhibitions

A Place to Play, The Urban In-Between (and other leftover spaces): TedX Brayford Pool

Trevor Elvin (*Senior Lecturer, Lincoln School of Architecture and the Built Environment*)



Focusing on the ideas generated by the GroundLAB collaborative community design studio in Sincil Bank, Lincoln, Trevor's Ted talk looked at how communities can unlock and re-engage existing leftover, disused and in-between spaces within our dense urban environments.

The Sincil Bank area of the city is built up with few accessible open spaces, especially green space, for play and recreation. The studio finds urban sites and works with residents' groups and community stakeholders on a range of projects with a focus on place-making and public space.

Trevor is interested in understanding the new and unexpected programmes which can exist within these spaces, and use them to test ideas about place-making, programme and density within our cities. The occupying and reimagining of these spaces are important, in their ability to knit the urban and social fabric together, providing access to space for play, including opportunities for social cohesion.

Publicly Engaged Research Projects

Decolonising History: sharing research with schools

Funded by the PEARL Activity Grants scheme

**Dr Sarah Longair, Dr Christine Grandy,
Dr Antonella Liuzzo Scorpo and Dr Leon Rocha**
(School of History and Heritage)

This project, which ran from March 2020 to January 2021, built on our research as historians for whom the decolonising agenda is fundamental to our work. In our different research specialisms (medieval history; history of medicine; history of empire; and history of race in twentieth-century Britain), we seek to illuminate hidden voices and expose how colonialism has shaped the study of history. In discussion with Kerry Milligan, then Head of History at The King's School, Grantham, we realised that our research and approaches to history could be useful and inspiring in helping local school teachers address similar issues in their school curricula. Through our project, we could provide teachers with new material and enrichment to inform development of the history curriculum from Key Stage 3 to sixth form. Four schools signed up to the project and were thoroughly engaged and responsive.

While planning took place in late 2019, the fact that the project was undertaken against the backdrop of the COVID-19 pandemic and the Black Lives Matter protests in 2020 significantly shaped the nature of the work. Initially, we hoped to run a single workshop with multiple sessions. With the move online, we were able to hold multiple meetings and respond effectively to teachers' interests in what we discussed. Each of us proposed a shortlist of talks based on our research, and teachers chose which ones they wanted to hear via an online poll. We then recorded our talks for teachers to watch in their own time and followed up with a two-hour online workshop to discuss our research with them. The teachers valued the opportunity to engage with up-to-date research and discuss the issues.

The next session focused on how to apply these ideas in the classroom, and we ran an additional session in response to teachers' needs on how to talk about race in the classroom. We also set up a Teams site where we could share resources, articles and lesson plans, and create a bank of materials for the teachers to develop their work.

As a result of this project, substantial changes in the KS3 curriculum have been undertaken across the four participating schools, as well as a notable increase in teacher confidence and excitement in engaging with these more challenging and unfamiliar topics. Lincolnshire schools have a significant proportion of white, working-class pupils which is an important context in which to think about this decolonising work. The BLM protests added urgency to the project, and our discussions equipped teachers to respond to greater interest from members of senior leadership teams in their schools. Feedback from students has been very positive, so we hope this project empowers both teachers and students in engaging with these issues.

This project was an enriching and thought-provoking experience for all of us – lecturers, teachers and students learned a huge amount. It was exciting to see the reformulated Key Stage 3 curriculum in one of the schools, and how our research informed different classes. The shift of the project to an online format gave us a huge opportunity to engage with school teachers who are so often hard to meet outside the classroom. The sustained nature of the project, with regular meetings, made it much more powerful, and enabled us to respond to the teachers' needs and tailor our research to their interests.

Lincolnshire Farming From Those Who Live it

Funded by the PEARL Activity Grants scheme

Matthew Bayly (*English Language Centre, International College*)

In November 2021, the exhibition 'Life on the Land: Lincolnshire's Farming Experiences' opened at Mrs Smith's Cottage museum in Navenby. The PEARL-funded project aims to connect with members of Lincolnshire's farming community, a generally disengaged demographic in regards local cultural events despite the prominence agriculture plays within the county. Despite the overwhelmingly rural nature of Lincolnshire, local public engagement still tends to be urban-based and not particularly aimed at a rural audience. All this means that the voices and experiences of individuals involved in farming have largely been bypassed.

Research for the project involved interviewing six individuals who either work currently in agriculture, or have been involved in farming in the recent past. Participants were sought initially by advertising on local community groups via social media. However, take-up from this was limited and so a more direct approach was adopted, contacting local branches of agricultural societies such as the Young Farmers, and utilising word-of-mouth within the farming community itself. My own family background in farming was particularly useful, as I was able to approach local farmers who my family members had worked for in the past. This was also beneficial in softening the public face of the project, employing my own place within the local community to forge links with research at the university.

The research material was distilled into a physical exhibition printed onto six A2 plywood boards. Currently, the exhibition will stay in place at Mrs Smith's Cottage museum in Navenby until March 2022. One benefit of having the exhibition in this format is that it is transportable. I have already had interest from other local venues to host the exhibition after March 2022, with the aim being to present it in several villages around the Sleaford and Lincoln areas. These include things such as cafes, libraries and village halls, meaning that there is wider scope for public engagement than if the exhibition was limited to a purely museum space. In addition to its physical form, the exhibition has also been delivered in an expanded online version, currently hosted on Mrs Smith's Cottage museum website. This goes into more detail than allowed for in the physical exhibition due to limitations in printing space on the exhibition boards. Physical copies of the expanded online version have been made available at the physical exhibition in the form of printed booklets.

All in all, the project has been received positively, with one research participant stating that it will be 'a useful snapshot...for future generations.' Visitors to the exhibition have been asked to contribute their own experiences of agriculture and farming via a post-it note board where they can leave their memories or comments. So far, the project seems to have been successful in engaging with a rural audience which has been generally ignored in previous local public engagement events.



Promoting Pleasure and Performance in Physical Activity

Rebecca Hawkins (Senior Lecturer, School of Sport and Exercise Science)

Dr Trish Jackman (Senior Lecturer, School of Sport and Exercise Science)

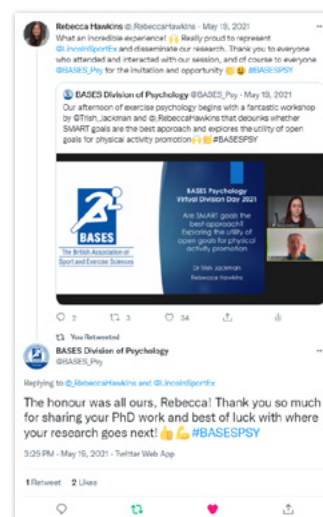
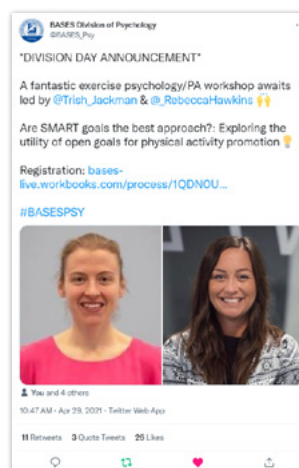
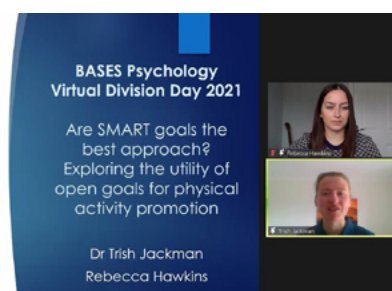
'Optimal experience' is an umbrella term used to describe positive, rewarding experiences in sport and exercise. The attainment of optimal experience can have important implications for individuals in sport and exercise settings, as such experiences are linked to increased wellbeing; performance; enjoyment and pleasure; future motivation; and long-term adherence to exercise. Therefore, helping people to understand how such experiences occur could not only enhance performance, but could also improve their physical and mental health.

By enhancing knowledge and awareness of research developments and applied practice of optimal experiences and goal setting in physical activity, the presentation aimed to increase awareness of methods evidenced to promote optimal experiences in physical activity, and thus improve experiences of athletes/exercisers; to increase awareness of optimal experiences for physical activity practitioners; and potentially to challenge how organisations promote physical activity.

As part of the British Association of Sport and Exercise Science (BASES) [1] Annual Psychology Division Day, Trish and Rebecca were invited to deliver the exercise and physical activity psychology workshop. This divisional event for BASES, the professional body for sport and exercise sciences in the UK, featured nine internationally recognised speakers and drew a large audience of over 200 delegates for a day full of activities designed for researchers and applied practitioners in sport and exercise psychology.

Taking centre stage during the afternoon session, Trish and Rebecca delivered a workshop based on some of their recent research in a session titled "Are SMART goals the best approach? Exploring the utility of open goals for physical activity promotion." The thought-provoking workshop presented some of the potential issues with implementing "SMART" goals for promoting physical activity, before the pair outlined evidence concerning the potential utility of "open" goals, featuring several recent collaborative studies, including research led by Rebecca published in *Psychology of Sport and Exercise*. [2]

This experience was an opportunity to disseminate new and emerging evidence within the area of goal setting and the promotion of optimal experiences in physical activity. The presentation served as a valuable learning experience for the research team, which was also well-received by the esteemed audience. Following the presentation, a series of positive reviews emerged on social media, which included: "Very eye-opening presentation. So many useful lessons! Thank you @Trish_Jackman & @_RebeccaHawkins", "A sports psych staple, goal setting, under the spotlight from @Trish_Jackman and @_RebeccaHawkins. A really interesting presentation challenging our thinking" and "Such an interesting workshop with a lot of thought-provoking content!". This experience has subsequently provided a strong foundation for further research and created networking potential and collaborations with internationally recognised researchers.



Key references and further reading

[1] The British Association of Sport and Exercise Sciences: www.bases.org.uk

[2] Publication: www.sciencedirect.com/science/article/abs/pii/S1469029219305874?via%3Dihub

ASCENTS 1-2-1: one to one paired mentoring to improve science attainment and attitudes

Dr Rachael Sharpe (Senior Lecturer/Programme Leader, School of Education)

Primary Investigator: **Professor Ian Abrahams** (University of Roehampton), Co-investigators: **Dr Ruth Amos** (University College London), **Dr Lynda Dunlop** (University of York), **Dr Helen Vaughan** (University of Liverpool), **Dr Michael Inglis** (University of Leeds) and **Dr Rachael Sharpe** (University of Lincoln)

Purpose: This project aimed to improve the attainment of, and attitudes towards, GCSE Science in Year 11 pupils from disadvantaged backgrounds, through 23 weeks of one-to-one academic mentoring sessions.

Audience: The project involved Year 11 pupils from disadvantaged backgrounds who were predicted to achieve a level 3-5 in GCSE Science. Undergraduates that mentored them were all studying for a science-related degree. Led by the University of Lincoln, the project ran across four other institutions, the University of Leeds, the University of Liverpool, UCL's Institute of Education and the University of York.

Background: There is a growing need in England to improve the outcomes for those students who are defined as disadvantaged, and to support these students in their attainment and attitudes to science. There is also good evidence to show that mentoring can be an effective way to improve attitudes and attainment. The project was an efficacy trial funded by the Education Endowment Foundation [1] and the Wellcome Trust from 2018 to 2020 and was built on a pilot project by the University of Lincoln [2] (Sharpe, Abrahams and Fotou, 2018). The project involved providing Year 11 students with a one-to-one mentor for science throughout their final GCSE exam year.

Approach: The project was delivered as a randomised control trial and involved inter- and intra-school comparisons between those Year 11 pupils who were mentored and those who were not. The project involved 845 pupils across 46 schools. Mentors could work on any aspect of science with their mentee, and the sessions were run at school out of lesson time.

Evaluation: The evaluation was conducted independently by a team from NatCen Social Research. The intervention was well received by schools, university students and, most importantly, the Year 11 students who received the mentoring. Unfortunately, due to COVID-19 the cancellation of the GCSE exams in 2020 meant that the actual impact of the mentoring on Year 11 results could not be measured. However, more than half of the undergraduate mentors had increased interest in teacher training and working with disadvantaged students. Overall, there was a positive impact on attitudes to the mentoring from the Year 11 students and their mentors. This research also presents potential future avenues for investigation, exploring the use of mentoring to improve the lives of disadvantaged students, as well as career opportunities in teaching for undergraduates, particularly in areas such as science.



Key references and further reading

- [1] Efficacy trial evaluation: <https://educationendowmentfoundation.org.uk/projects-and-evaluation/projects/ascent-121-support-for-science>
- [2] Sharpe, R., Abrahams, I. and Fotou, N. 2018. Does paired mentoring work? A study of the effectiveness and affective value of academically asymmetrical peer mentoring in supporting disadvantaged students in school science. *Research in Science & Technological Education*, 36(2), 205-225, DOI: 10.1080/02635143.2017.1355783

Collective Wisdom

Professor Anna Marie Roos (*School of History and Heritage*)

The purpose of the Collective Wisdom Project [1], sponsored by an AHRC Networking Grant (Primary Investigator: Professor Anna Marie Roos, School of History and Heritage, University of Lincoln; Co-Investigator: Vera Keller, University of Oregon), was for an international network of scholars to explore how and why members of the Royal Society, the Society of Antiquaries of London and the Leopoldina collected specimens of the natural world, art, and archaeology in the 17th and 18th centuries. Project partners included: the Royal Society, the Society of Antiquaries of London, the Francke Foundation, the University of Lincoln and the University of Oregon. Our first workshop in Halle explored early modern physicians who were fellows of these societies and analysed their approaches to collecting [2]. Our second, at the Society of Antiquaries, examined connections between early modern antiquarianism and museum collections, and featured a hands-on workshop for early career scholars to introduce them to the archival collections. The third conference at the Royal Society analysed early museums and digital humanities.



As part of our work, we examined the Wunderkammer or Natural History Museum in the Historic Orphanage of the Francke Foundation in Halle, Germany. In 1698, August Hermann Francke created this global cabinet of artefacts and natural curiosities as a teaching tool for the children in his care; his 'learning-by-doing' approach included teaching the children to sing for public performance to raise awareness and funds for his organisation.

Such pedagogical ideas were part of a shared vision of Protestant piety and charity, and greatly influenced Thomas Coram's vision for the Foundling Hospital. George Frideric Handel, a native of Halle (which is now home to the Handel Museum), had Francke as his teacher, and was familiar with Francke using musical performance to fundraise. Handel's Messiah was subsequently performed in a benefit concert for Coram's Hospital in London.



As a tribute to the past efforts of Francke, Handel and Coram, two benefit concerts were held to raise public awareness of the work of the Francke Foundation and the Coram Foundation. In June 2018, a Baroque Concert at the Englische Saal in the historic English House, Francke Foundation, was staged. The concert, with music by Handel, Corelli, Telemann, and Bach, was given by pupils at the Music Conservatory playing cello, violin, and blockflöten (recorder), conducted by Nick Gerngross on harpsichord. The concert was prefaced by a short presentation by Anna Marie Roos in English, and workshop participant Anna Maerker (King's College, London) in German.

A parallel benefit concert of baroque music for the general public was held at The Royal Society in November 2019 to raise public awareness of the work of the Coram Foundation for Children in London. The concert was free to the public with optional donation to Coram's Programme of Creative Therapies for Children. Maider LaCalle, the Senior Corporate Development Manager for Coram, also gave a short presentation before the concert on the mission of the Coram Foundation. The baroque duo 82 Degrees (Ada Witczyk and Mark Walkem) performed a selection of baroque music of Handel, Haydn, and Geminiani.

The concerts raised £600 to benefit each organisation's charitable objectives, and made audiences aware of the connections between early museums, music and the work of orphanages; the first concert gave developing musicians professional practice for their future careers.

Key references and further reading

- [1] Collective Wisdom Project: <https://collectivewisdom.uoregon.edu/>
- [2] Article: www.leopoldina.org/en/events/event/event/2595/

Sharing Archaeological Research in Scarborough's 'Big Ideas by the Sea' Festival

Professor Carenza Lewis (*Professor for the Public Understanding of Research*)

July 2021 saw the first ever 'Big Ideas by the Sea' festival in Scarborough [1], a new festival which hopes to be the North's leading environmental and creative festival by 2025. A centrepiece of the festival was the opportunity for members of public to take part in test pit (metre square) excavations within the town. This was inspired by my research between 2005 and 2018 excavating more than 2500 test pits with members of the public and analysing the finds to reconstruct the development of villages, small towns and farms in East Anglia. I was invited to 'Big Ideas by the Sea' to talk about my work to show what the finds being made in Scarborough might reveal about the town's historic development. I spent the day before my talk touring around the test pits, which were just getting started. Some of the most interesting finds were coins from slot machines in seaside games arcades, marbles, toy vehicle fragments and sweet wrappers from one test pit in the back garden of a terraced house. It's always interesting to see finds relating to children as they rarely feature in historical records, and nice to have arcade finds from a seaside town!

More ominous were ammunition rounds from 1941, several of which were found on one of the test pits, attesting to Scarborough's role in the Second World War. Within the first 20cm or so, pieces of imported Delft Ware from the Netherlands and Stoneware from Germany were found, dating broadly to the 16th to 18th centuries. Alongside there were even a few sherds of distinctive grey medieval pottery with a glossy green glaze - examples of iconic (because it's so nice to look at) pottery made in vast quantities in Scarborough from the 12th to 14th centuries. Usefully (if rather unimaginatively), archaeologists call this Scarborough Ware. In addition, traces of a few stone walls of medieval buildings were also beginning to appear.

About 50 or so people came to my talk in the evening, and because I'd visited the dig sites (as well as knowing about my own finds) I was able to put these early Scarborough discoveries into the wider context by comparing them to what my test pits had found. I highlighted the rarity of the ammunition casings, which we hardly ever found, even in places along the East Anglian coast which were defended during the war. I also discussed how the imported pottery found in Scarborough is unusual in smaller rural places, and so its presence is totemic of Scarborough's role as a major port in the past. I was also able to tell the audience that Scarborough Ware, perhaps unexpectedly, does turn up in East Anglia - because pottery was moved around by water, therefore the links between Scarborough and East Anglia were much closer than they are today. That said, I made sure they knew how much more of this was turning up in Scarborough! Most unusual, I noted, were the medieval building remains, which we found in merely a handful of pits.

But beyond this I was also able to tell the audience about the 'bigger pictures' of my East Anglian data and their significance - such as the scarcity of Roman pottery and the marked drop in finds after the 14th century Black Death plague pandemic. In particular, I speculated with the audience whether Scarborough might have bucked the general trend of falling populations after this medieval pandemic, as coastal settlements in Suffolk seem to, judging by the pottery from places like Walberswick. Scarborough Ware, I noted, ceased production sometime around the time of the Black Death... This meant that when people returned to their digging the following day, they were able to appreciate the significance of what they were finding, because they knew more about how common or rare their finds were, and the questions they might be able to answer. This is one of the positive outcomes of engaging people with research - it inspires people to want to find out more.

'Big Ideas by the Sea' festival will return in 2022, running from Friday 20th May to Friday 3rd June - with more opportunities to dig test pits and find out more about the town's past. We are particularly keen to look a bit nearer the castle...

Key references and further reading

[1] Big Ideas by the Sea: www.bigideasbythesea.com

Drumming Up Health Issues among Parkinson's Community in Lincoln

Celene Gibson, Dr Syed Imran Ahmed and Dr Richard Ngomba (*School of Pharmacy*)

Parkinson's Disease (PD) is a chronic and progressive movement disorder with ~ 20,000 new cases diagnosed each year in the UK [1]. This condition greatly reduces the quality of life both for the patient and for the carers and family. Recent research shows that a household having a member with Parkinson's in the UK is on average £16,582 per year worse off.

With the advent of COVID-19 there has been an increase in the disease burden for these patients, in part due to the level of uncertainty and anxiety about the unknown outcomes even for healthy people. Coupled with the scaling back of outreach services, as well as increased waiting times for elective supportive treatments as specialists are redeployed to help cope with the pandemic, average wait times have increased to an average of 44 weeks for 9/10 patients.

In addition, Lincolnshire is known to be one of the most rural and health resource poor counties in the UK. There are an estimated 1500-1700 [2] diagnosed cases of Parkinson's disease within the county, although this figure is likely an underestimation of the true scope of the condition. This is in part due to the deficit and retention of neurologists specialising in the condition, which lead to a knock-on effect for patient diagnosis. In addition, the lack of specialised community-based nurses and pharmacists with expertise in PD lead to a lack of follow-up and ongoing care needs being managed.

Organised forum groups have been held with PD patients in Lincolnshire [3] both physically and virtually in order to gauge patient wants and needs and tailor the service effectively. These have adopted a collaborative approach: regionally, including Lincoln-based researchers and students at the School of Pharmacy, with some international support to help raise the issue and give patients a voice so the service can be tailored towards their needs.

It also served a secondary purpose. By including these budding professionals, we hope to raise overall awareness of the deficit in resources in the region and encourage the students who started their journey in Lincoln to remain here, and hopefully benefit all patients in the longer term. Pharmacy students were chosen for this due to their expert understanding of medication, and are a valuable and relatively underused resource that could enhance the experience and support networks available.

The initial event was well-received by the patient cohort invited, and again highlighted the issue that there is a deficit of resources within the region which needs to be addressed. The hope of this event, and any subsequent ones, would be to develop a strong network of academics and clinicians within the region who have a special interest in PD in the hope of improving the quality of life of the patients in the region.

Students involved in the project benefited from learning about PD and patient management from a new perspective, as well as an improved understanding of the topics and their relevance to their future career options. In the interim, we hope to utilise already qualified and interested health professionals who can be upskilled to provide more support for patients, as it was highlighted by patients that there was sometimes a hesitancy to engage with their local pharmacist who may or may not feel confident enough to provide that kind of in-depth support. This again highlights a real need within the region to at the very least offer professional development to those who are already qualified and to provide this support network for the patients who need it.

Key references and further reading

- [1] The incidence and prevalence of Parkinson's in the UK report:
www.parkinsons.org.uk/professionals/resources/incidence-and-prevalence-parkinsons-uk-report
- [2] Parkinson's Foundation; www.parkinson.org/Understanding-Parkinsons/Statistics
(Data gathered by L.N.A. Lincolnshire and provided by the Chair of the L.N.A.)
- [3] Parkinson's discussion group:
www.stamfordmercury.co.uk/news/support-talk-for-nervous-system-disorder-9091962/

Bummock: Tennyson Research Centre

Andrew Bracey (*Senior Lecturer, School of Fine and Performing Arts*)

Bummock: Tennyson Research Centre is a long-term artistic investigation by researchers Professor Danica Maier (Nottingham Trent University), Andrew Bracey and Dr Sarah Bennett (Kingston University) funded by Arts Council England. This archive holds what is considered to be the most significant collection in the world relating to the Lincolnshire-born nineteenth century poet, Alfred Tennyson. Though the archive houses a wealth of objects and information on the poet himself, it is the lesser-known and intriguing content concerning his wider family and relationships that has been central to the creation of new work by all three artists.

Over four years, the artists have explored the archive with an intention to examine and respond to what they call the 'Bummock'; a term used to describe the large part of an iceberg hidden beneath the surface of the sea. There have been displays of works across Lincolnshire during the project - as public artworks in Waddington, and small exhibitions at Whisby Natural World Centre, NCCD and the Hub, Sleaford. A large exhibition at the Collection Museum in Lincoln (January – February 2022) featured new works by each artist, alongside the objects, memories and stories selected from the archive that inspired them.

Professor Maier was most taken by Alfred Tennyson's great niece Fryn (Wynifried) Tennyson Jesse. Her new work looks at Fryn's legacy and her personal relationships, through the lens of Danica's own family narratives. Andrew's interest was captured by the drawings and sketchbooks of Alfred and Emily Tennyson's eldest son, Hallam. His work explores these objects as unique visual records giving a fascinating, alternative insight into the upbringing and daily life of Tennyson's children specifically and Victorian life in general. Sarah's research took as its starting point Tennyson's immediate family and the various illnesses from which most of the male family members suffered. She then investigated the situation of the Tennyson women who were excluded from a university education, unlike their male counterparts.

The exhibition featured a number of public events including artist tours, workshops by local artists mentored by Bracey and Maier, and a symposium featuring the artists, art historians Dr Jim Cheshire (Lincoln) and Dr Sian Vaughan (Birmingham City University) and keynote speaker Sue Breakell, Director at the University of Brighton Design Archives. The symposium expanded upon issues arising from the Bummock: Tennyson Research Centre, covering





an overview of the Centre held in the Lincolnshire County Archives, connections between Tennyson, his family and the artworks, the importance of the personal within the archive and its materiality, discussion about the sense of 'place' of the archive and the implications of this, an unpacking of the artists' research and work within the Centre. These public events are an important part of disseminating the outcomes of the research, alongside more traditionally academic routes of journal articles and books. Importantly, it also allows for direct and ongoing feedback with the public that enables further development of the project for future archives.

The project with the TRC forms part of a wider research project, 'Bummock: Artists in Archives', led by Professor Maier and Bracey, which is investigating, researching and using unseen parts of archives as catalysts for new works. The Bummock project examines how artists can approach archival work differently to the methodologies of standard practice. Commonly, the researcher navigates the archive's catalogue to narrow down and discover the specific material they want to call up for study. Increasingly, the digitised archive allows research of the archive to happen remotely. This is clearly a time- and cost-effective method and enables access to a wider public. Nevertheless, there are issues if these approaches are adopted as the only way to gain access to an archive's material.

The researchers' premise is that with a specific focus on the 'bummock' ethos, combined with the use of our 'controlled rummage' methodology, there are mutually beneficial ways of accessing unseen material that can help users pursue original research and support archivists to re-engage with their collections. This 'rummage' is not a frantic fumble along the hallowed shelves, but a focused enquiry within the archive to identify and find the yet-to-be-appreciated parts of an archive. This is achieved through dialogues with the archivist, and direct engagement with the archive collections. Ideally, the controlled rummage takes place through bypassing the catalogue, working directly within the physical space and materiality of the items held within the archive. For example, this could include choosing an archival box at random, finding uncatalogued items, looking at what is held next to each other in the store by size rather than subject, or looking for dusty items.

A key goal through the 'controlled rummage' is to find unseen and/or lesser-known parts of archives that connect with the researcher, and to test how the approach of using the controlled rummage methodology can be applied to disciplines beyond art. This enables new readings, knowledge and artworks to be generated, thereby allowing the bummock to become the tip.

More information about 'Bummock: Artists in Archives' can be found online at www.bummock.org

Engaging Thoughts

Driving Meaningful Change: welcome to LILI

Dr Julie Bayley (*Director of Research Impact Development and Director of the Lincoln Impact Literacy Institute (LILI)*)

The University of Lincoln has a strong heritage of community engagement and working in partnership with society. Opened in 1996, Lincoln was the first new city centre campus in the UK for decades, with the institution built by - and for the benefit of - the region. Since then, it has continued to actively centre itself as part of regional life, engaging with local government, business, public services and the many (and varied) communities that form the area's rich tapestry.

In 2019, Lincoln's 'Permeable University Manifesto' [1] sent a strong message to the higher education sector that "universities need to respond to changes in wider society more rapidly and in some cases more effectively than ever before". This need to break down barriers between the university and society is critical, and public engagement is a key and vital part of our University's endeavours to connect our research with the wider world.

PEARL has been pivotal in creating opportunities, providing support and showcasing good practice, and both the breadth and innovation of our public engagement activities is continually inspiring. Moreover, it demonstrates how close a link we not only have, but choose to have, with the world outside the University's walls.

In parallel, impact has in recent years become an increasingly defining feature of research life. Impact is most simply defined as the provable benefit of research in the 'real world', and is in essence the expression for the changes that are brought to bear through our engagement and other 'translational' activities. While understanding and expectations of impact can be skewed by assessment criteria (or the requirements of funders), at its heart impact is just about helping people, and the world we live in, in a way that matters.



It is no surprise therefore that public engagement and impact are interlinked. Just as PEARL seeks to drive public engagement, the Lincoln Impact Literacy Institute (LILI) seeks to drive better understanding of impact, and what meaningful research-led change looks like. LILI is the University of Lincoln's strategic unit for impact, combining academic

expertise and research management experience to strengthen impact literacy both within and beyond Lincoln, working in partnership across the sector in pursuit of 'healthier' approaches to impact.

LILI was established not only to strengthen impact, but also to critically challenge a field which is so often dominated by assessment. Recent external activities have included the development of a new impact toolkit 'dashboard' for the National Institute for Health Research (NIHR), a new way to support reviewers in appraising impact plans in NIHR funding bids, as well as a collaboration with Emerald Publishing to develop a suite of 'impact literacy' and 'institutional health' online tools. Within Lincoln, LILI is developing a new programme of impact development activities, and will continue to work collaboratively with colleagues on a range of initiatives to further embed impact into our work.

Making a difference to society is part of Lincoln's DNA. Working both independently and together, PEARL and LILI are an expression of this core commitment. We have an incredible opportunity to connect with society. Let's keep doing it.

If you would like to learn more about LILI, visit our website www.lili.blogs.lincoln.ac.uk/

Key references and further reading

[1] The Permeable University – A New Manifesto: staffnews.lincoln.ac.uk/2019/11/25/the-permeable-university-a-new-manifesto

Reimagining Lincolnshire

Professor Heather Hughes (*Department of Marketing, Languages and Tourism*)

Reimagining Lincolnshire is a public history project that seeks to revisit the history of our region, to emphasise how connected it has been to, rather than isolated from, all the movements and periods of our history. We seek primarily to include the histories of those who have been silenced, and to consider how their stories change our perspectives. Participants are university staff, students and volunteers. In 2021, we participated in Heritage Open Days and the Being Human Festival. We also launched:

- Lincoln's first Black History Trail for Black History Month
- A YouTube channel, where you can view two Lincolnshire-based RAF veterans, both born in Jamaica, discussing their experiences in the military and civilian life [1]
- A discussion series with a talk by Dr Carine Zaayman on archival absences
- A reading group - our first volume is Hazel Carby's *Imperial Intimacies: A Tale of Two Islands* (Verso 2019), which has strong Lincolnshire connections
- A regular blog [2]
- A project to make parish churches more inclusive

The project lead is Professor Heather Hughes, and our researcher is Dr Victoria Araj. Please contact Dr Araj if you would like to learn more: varaj@lincoln.ac.uk



Key references and further reading/viewing

[1] Sidney McFarlane MBE and Ralph Ottey in conversation with Lesley Morrison: www.youtube.com/watch?v=wyzek032hL4

[2] About Reimagining Lincolnshire: <https://reimagininglincoln.blogs.lincoln.ac.uk/about-us/>

Showcasing Net Zero Robotic Farming at COP26

Marie Daniels (*Lincoln Institute for Agri-Food Technology*)

In collaboration with: **Dr Amir Ghalamzan-Esfahani**, **Professor Simon Pearson** (Lincoln Institute of Agri-Food Technology) and **Dr Soran Parsa** (Research Fellow, School of Computer Science)

The UK Government selected the University of Lincoln to share with The UN Climate Change Conference COP26 the way its cutting-edge robotics and artificial intelligence (AI) technology is influencing the future of sustainable food production.

COP26 took place in Glasgow from 31 October 2021, with the main aim of bringing together nations in accelerating action towards the goals of the Paris Agreement and the UN Framework Convention on Climate Change.

The Lincoln Institute for Agri-Food Technology (LIAT), a specialist research institute of the University of Lincoln, exhibited at the public-facing 'Green Zone' exhibition alongside numerous industry leaders at the forefront of climate science.

Lincoln's researchers showcased 'Robofruit', one of many state-of-the-art agri-tech projects, which uses AI and novel picking technology to harvest ripe fruit. [\[1\]](#)

This research has long-term environmental benefits: by better utilising crops, it will contribute to a reduction in food waste. It will also help to address labour shortages in the UK, driving the route to the use of robotics and AI in agriculture on a larger scale

The University of Lincoln has one of Europe's largest academic research centres for agri-robotics. Research carried out by LIAT aims to drive industry sustainability by addressing labour shortages, the need for global food production, and to reduce the environmental impact of the farming sector.

LIAT and partners are also responsible for Robot Highways, one of the world's largest robotic farm demonstration projects which delivers a vision for the future of farming. Robots assist farmers by carrying out essential, energy intensive physical farm processes such as picking and





packing fruit, and treating crops to reduce critical pests and diseases – all powered by renewable energy.

The COP26 exhibition showcased various field activities – including agri-forestry, robotic harvesting and crop care as well as packaging, digitalisation and the employment of artificial intelligence.

Dr Amir Ghalamzan-Esfahani, Associate Professor in Robotics at the University of Lincoln, who leads Robofruit, said: “We are demonstrating to the world how robotics and automation are shaping the future of UK and international farming and food production.



“The University of Lincoln is at the forefront of the UK’s agri-tech and agri-food developments, with our research and teaching supporting innovation and developing workforce skills alongside partners across our food and farming sectors. Together, we aim for net zero emissions across the industry.”

Professor Simon Pearson, Director of LIAT, said: “The Lincoln Institute for Agri-Food Technology is supporting and enhancing the future of food and agriculture productivity, efficiency, and sustainability through research, education, and technology.

“We were honoured to be one of the few UK universities selected by Government to showcase at COP26.”

The University of Lincoln exhibited at COP26 between 1 and 12 November.

Key references and further reading/viewing

[1] Robofruit: www.youtube.com/watch?v=JF4WR6Li-v4

The Mirror Trap: an immersive online play

Dr Kay Ritchie (*School of Psychology*)

Last August I was sitting outside a café enjoying the Lincoln sunshine with PEARL's own Matt Young, when Matt's friend, the science presenter Simon Watt [1] appeared completely randomly. During a chat about all things public engagement, Simon mentioned a play he'd written specifically to work for science festivals which had been forced to move online.

The Mirror Trap marries concepts in quantum physics with psychological phenomena to create an immersive and creepy experience. At the end of the play, Simon has a group discussion with the audience and a local physicist and psychologist. A couple of weeks later, Simon heard that the psychologist he'd originally booked for the Swansea Science Festival had been forced to pull out, so because of my research interests in face perception, he asked me if I'd step in.

***WARNING** – the rest of this article contains spoilers of the play, “The Mirror Trap”. There are no further planned performances at the moment, and the play can be fully enjoyed even if you know the spoilers, but only read on if you don't mind knowing the inner secrets!*

The play is a monologue by Simon playing the role of a physicist who is obsessed with the quantum immortality thought experiment. It's like Schrödinger's cat but the scientist is inside the box. In the play, Simon's character plays Russian roulette with himself, reasoning that he can prove the existence of multiple universes if he wins every time. The only problem with this is that if he doesn't prove the multiverse exists, he'll die.

Before logging in for the play, audience members are asked to plug in their headphones, sit in a very dimly lit room, and bring a mirror and whiteboard pen. There is a purpose for all of this. At the beginning of the play, Simon's character tells us he's sitting staring at his face in a mirror and invites us to do the same. He then describes some symbols for us to draw on the mirror. This keeps our attention directed at the mirror, as do prompts throughout to keep staring at our own reflection. As well as Simon's voice, there are eerie background tones playing throughout. Within the first two minutes of staring at my own reflection, I began to see my reflection's eyes darting around, despite knowing I wasn't moving my eyes. As the twenty-minute play progressed, I started to see my mouth move and contort, and then my left eye melted off my face. It's a genuinely unsettling experience.



What's happening here is Simon is exploiting the 'strange-face-in-the-mirror' illusion (first published in the journal Perception [2] with a freely accessible summary on 'Mind Hacks' [3]). In dim lighting after staring at your own face for a while, lots of people (over 60% of Simon's online audiences) start to see distortions. We don't know exactly why this happens, but in dim lighting we don't look quite like ourselves, and our visual system doesn't like looking at the same thing for a long time, so some combination of these facts leads to people perceiving very odd things. Some even perceive their reflection to be someone else, or even more disturbingly, a corpse. The feeling of unease in the play is added to by the background tones – these are Shepard tones which are overlapping tones producing notes that appear to move infinitely either up or down in pitch. There's a good example on YouTube [4].

You can experience the strange-face-in-the-mirror illusion yourself by sitting in a very dim room and staring at your face in a mirror. What I learned from all this is that the pandemic and the move online didn't stop people from creatively engaging others with science. This play only works online with audience members sitting in different dim rooms. The way I got involved is also a good example of why it's good to have your 'elevator pitch' prepped and ready to deploy at any point – you never know when interesting public engagement opportunities might crop up.

Key references and further reading/viewing

- [1] Simon Watt: www.simonwatt.co.uk
- [2] Publication: <https://journals.sagepub.com/doi/10.1068/p6466>
- [3] Article: www.mindhacks.com/2010/09/18/the-strange-face-in-the-mirror-illusion
- [4] Video: www.youtube.com/watch?v=BzNzgsAE4F0



University of Lincoln4.0 Challenge

Dr Herbert Mapfira, Dr Kenny Odunukan, Liz Price (*Department of Management*), **Chang Ge** (*Department of Tourism, Languages and Marketing*), **Hanna Pimanava** (*Lincoln International Business School Executive Office*) and **Dr Geeta Lakshmi** (*Department of Accountancy, Finance and Economics*)

University of Lincoln4.0 Challenge is a challenge-based learning project which engages businesses and students to explore opportunities for digitalisation. Run by Lincoln International Business School, the project pairs undergraduate students with local businesses to explore how digital technology could lead to new commercial ideas and new ways of interacting with customers and suppliers.

Aim and objectives of University of Lincoln4.0 Challenge

The objectives of University of Lincoln4.0 Challenge are twofold: firstly, to provide students with the opportunity to work with local businesses on real-life challenges and, in turn, improve their employability skills; secondly, to provide a fresh pair of eyes on local business challenges along with the potential for innovative solutions to be identified.

A core aim of University of Lincoln4.0 Challenge is to improve the potential for implementation of Industry 4.0 solutions among local businesses, thereby improving business competitiveness and productivity. Lincolnshire performs poorly across a range of innovation indicators, which contributes to the county's position within the bottom 5 areas of England for gross value-added growth. 89% of businesses in the county are micro-businesses which, with fewer than 9 employees, can lack the internal resources or expertise to invest in digital technology. The project is part-funded by an EU Interreg project, COM3, which focuses on improving the digital competencies of businesses in the North Sea Region of Europe.

Project Partnership

Working with Business Lincolnshire Growth Hub, the University of Lincoln4.0 Project has engaged a range of businesses from across the county. These include some key local employers such as Ruddocks, Teledyne, and Lincoln City Football Club, as well as micro-businesses such as Lore Creative, Waltham Herbs, People First Education, and Spalding Craft Outlet. The academic team in LIBS works with each business to understand the nature of their challenges, and to formulate these into guiding questions for the students to explore. Topics vary, but the COVID-19 pandemic has led to an increasing focus on challenges related to online presence and delivery of goods and services over the past two years.

Curriculum Connection and Student Showcase

The activity is embedded within the Operations Management module, where undergraduate students learn various tools and techniques focused on systems and processes, that they apply to gauge the validity of potential solutions. Students meet with the businesses at an introductory Q&A session at the start of each semester, and later present their ideas at a poster presentation to an audience of academics and participating businesses. The latest event was hosted at the Isaac Newton Building on Friday 10th December 2021. The student teams that receive the highest scores for their posters are invited to present their idea at the University of Lincoln4.0 Challenge Awards Ceremony (livestreamed on the LIBS Youtube, LinkedIn and Facebook Channel during the COVID-19 pandemic).

Project Impacts

For students and businesses alike, this engagement project has led to a number of outcomes. Some businesses have invested in new online inventory and booking systems, which have led to time and cost savings, and others have developed new social media strategies. Following students' suggestions, Lincoln City Football Club developed a TikTok account as an additional way of engaging fans which was found to be particularly beneficial while matches were not able to take place during the pandemic. Other businesses have valued the project simply for consolidating connections with the University, and opportunities to guest lecture or offer student internships. Several students have engaged in internships with participating businesses, and, for two graduates, these have led to full-time employed positions. University of Lincoln4.0 Challenge is attracting growing interest from local businesses, which reflects the demand for business digitalisation, innovation support and the fresh perspective the students bring, as well as the value of Challenge-Based Learning for both students and businesses.

For the University of Lincoln4.0 Challenge-based Project updates, follow: uolchallenge.blogs.lincoln.ac.uk/uol-challenges and Twitter: [@uolchallenge](https://twitter.com/uolchallenge)



Spotlights Podcast

Dr Matt Young (PEARL)

In early 2021, while national COVID-19 restrictions remained a significant barrier to in-person engagement activity, the PEARL team developed a limited podcast series in collaboration with Siren Radio [1]. The series, entitled 'Spotlights' [2], took the form of informal conversational interviews with Lincoln researchers, exploring some of their latest work and the interests that drive them.

The aim of the series was to use an audio storytelling format to give listeners a glimpse into the world of research, as told by researchers in their own words. The six-episode series was released weekly from early Spring 2021, with episodes broadcast to thousands of local listeners via Siren Radio, as well as made available online through the Siren Radio podcast [3] and via SoundCloud where the episodes received more than 110 unique downloads. The series covered a wide array of academic topics, from psychology, health care and music, to archaeology, chemistry and agriculture. Each of the six episodes are summarised below.

Episode 1: Do You Recognise Me?

Cognitive Psychologist **Dr Kay Ritchie** (School of Psychology) guides us through her research into face perception. Kay tells us about her fascination with how humans recognise and differentiate faces, and how we might not be as good as we think at telling strangers apart from each other.

Episode 2: There's Much More to Music

Ethnomusicologist **Dr Cassandre Balosso-Bardin** (School of Fine and Performing Arts) talks about all things music. Cassandre introduces us to the Majorcan bagpipes, the wildly successful International Bagpipe Day project, and her academic efforts to support the livelihoods of professional musicians in the UK and beyond.

Episode 3: The Treasure in Our Trash

Dr Jose Gonzalez-Rodriguez (School of Chemistry) discusses the value of our waste materials. Jose explains how he and his colleagues are using computers and the chemistry lab to create small scale tools to solve our big world problems, from extracting rare and useful chemicals from waste products and even cleaning up the environment.

Episode 4: Layers of Our History

Professor Carenza Lewis (School of History and Heritage), an archaeologist and Professor for the Public Understanding of Research at the University of Lincoln, shares her passion for cultural heritage and community archaeology. Carenza discusses her recent work digging up fascinating insights into the past with the residents of local towns and villages across Europe, and why it's so important to work closely with the public in her research.

Episode 5: The Farm and Everyone Around it

Professor Abigail Woods (Head of College of Arts), a historian of science, technology and medicine, tells listeners about her journey from being veterinary surgeon to becoming a researcher, and about her fascinating work on the FIELD project that addresses the past, present and future of endemic livestock disease.

Episode 6: Identity and Ageing

Lecturer in Public Health and Social Determinants of Health, **Dr Michael Toze** (Lincoln Medical School) discusses his insightful research into the experiences of ageing in older LGBT (Lesbian, Gay, Bisexual & Transgender) people. Michael also explains how in exploring wider social issues and lifetime experiences, we can hopefully better understand the issues that these groups may face and how we might address them.

All episodes were recorded, edited and hosted by **Matt Young** (PEARL) and featured researchers from the College of Arts, College of Science, College of Social Science and the Lincoln Medical School. Our sincere thanks go out to **Andrew David** (Siren Radio) for his support in the editing and production of this series. All episodes of the Spotlights podcast are available to listen to online at www.spotlights.blogs.lincoln.ac.uk/listen-now/

Key references and further reading

[1] Siren Radio website: www.sirenonline.co.uk

[2] Spotlights podcast website: www.spotlights.blogs.lincoln.ac.uk

[3] The Siren Radio Podcast: www.sirenradio.podbean.com/



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Brayford Pool, Lincoln, LN6 7TS

+44 (0)1522 835505 | pearl@lincoln.ac.uk
[@UniLincolnPEARL](https://twitter.com/UniLincolnPEARL) | pearl.lincoln.ac.uk

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