



# SMEATON300 REPORT



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## **Executive Summary**

In January 2024 the University of Leeds launched its Smeaton300 programme in collaboration with a national creative initiative by Foxglove to celebrate the 300th anniversary of the birth of John Smeaton, recognised as the UK's first civil engineer.

Throughout the year the University brought interdisciplinary research-inspired cultural activities to staff, students, and the public. This programme was led by the University of Leeds' Cultural Institute in partnership with the School of Civil Engineering (CIVE), and Foxglove, supporting activities across the School of Music, Public Engagement Team, stage@leeds, Cultural Collections and Galleries, and the University of Leeds Poetry Centre.

The Smeaton300 partnership exemplifies the University of Leeds' dedication to developing a unique and exciting campus cultural offer that draws inspiration from our research to enhance student opportunities and promote public engagement.

"Foxglove's Smeaton300 partnership with the University opened the door to adventurous new collaborations with researchers, students and artists. It was exhilarating to see how the university responded to our Smeaton300 framework and tested the four themes in exciting and unexpected ways."

### Abby Dix-Mason, Foxglove

"Smeaton300 and the partnership with Foxglove underpinned a hugely collaborative programme, rich and surprising, that allowed us to explore the relationship between research and cultural production in new and exciting ways for and with varied audiences. Its legacy is already seen in the development of cultural programming on campus, research trajectories, and the University's civic role". Wieke Eringa, Director of the Cultural Institute

### **Executive Summary**



### Cultural programme highlights

- Biggest ever Light Night programme on campus drawing over 13,000 visitors
- Trialling off-site programming at Howard Assembly Room and Leeds Industrial Museum
- Partnering on a wider programme, ability to scale up activity and try something new

### **Student Activity Highlights**

- Biomimicry Design Competition: Civil Engineering students co-designed an event looking at nature-inspired solutions for campus improvements
- Liberal Arts App Development: BA Liberal Arts students developed an app to help new arrivals learn more about their surroundings on campus
- Navigating Home Project: 4 Student volunteers created a resource page for the One Night One Dream Life in the Lighthouse exhibition
- 8 student commissions were included in the programme for Light Night 2024

### **Research Activity Highlights**

- Leeds Creative Labs: Five artists and five School of Civil Engineering academics participated in a creative research residency
- Leeds Industrial Museum Takeover: The Public Engagement team hosted workshops at Leeds Industrial Museum drawing over 250 visitors
- Light Night: Artistic work inspired by research in Music, Mathematics, Mechanical Engineering, Social Sciences, Physics and Astronomy, Animal Biology and Leeds Ecosystem, Atmosphere and Forest
- REF CIVE and English will cite Smeaton300 in Unit of Assessment People Culture and Environment statements

## Introduction

### John Smeaton's Legacy

Born in Leeds in 1724 John Smeaton devoted his life to developing innovative tools and infrastructure that significantly benefited society. His work in designing bridges, canals, harbours, and lighthouses laid the foundation for modern civil engineering and continues to inspire professionals today.

### **2024** Collaboration

In 2023 and 2024 the University of Leeds invested in bringing interdisciplinary research-inspired cultural activities to staff, students, and the public. The programme was led by the University of Leeds' Cultural Institute, in partnership with the School of Civil Engineering, and supported by Foxglove, who gave generously of their time, expertise and infectious enthusiasm throughout. Funding supported activities led by the School of Music, Public Engagement Team, stage@leeds, Cultural Collections, and the University of Leeds Poetry Centre.

### Smeaton300 Programme

Smeaton300 was a creative events programme curated by Foxglove, drawing inspiration and taking an interdisciplinary approach to explore Smeaton's pioneering work and legacy. As part of the LEEDS2023 initiative, Foxglove collaborated with East Leeds Project and the School of Physics and Astronomy to create Moon Palace - a mobile observatory and artwork designed to engage the public in the wonders of science and engineering.

Smeaton300 activity is underpinned by four themes inspired by Smeaton's work, which this report follows:



## **01 The Art of Engineering**

Exploring the crucial interdisciplinary partnerships between engineers, artists, scientists, and designers that drive innovation and creativity in our world.



#### Artists and academics collaborate on Leeds Creative Labs

Five academics from CIVE were paired with artists on this six-week collaboration that explored ideas including circular economy, wellbeing of construction workforce and thermal technology. Four pairs were awarded follow on funding to continue their work together, and for one academic this has led to the development of a £1,000,000 EPSRC grant application. The Cultural Institute and CIVE have begun to explore the potential for another Creative Lab in 2026 linked to 'for the public good'.

"Academics are by nature curious, and Creative Labs stimulates thinking outside the box. Labs gave them the courage to push their boundaries. It made them bolder, able to try something else." Carlo Prato, Head of School, Civil Engineering

This interdisciplinary collaboration has been very fruitful, resulting in developing a novel idea ... the follow up fund has allowed us to join in with other interdisciplinary researchers to develop the ideas further and to work on internal and external funding proposals. **Dr Sally Shazhad, School of Civil Engineering** 

A fantastic opportunity to connect with people from different disciplines who share similar interests. My pairing was a great match – we were completely different in our approaches, but that contrast was really inspiring. It's definitely encouraged me to seek out more cross-disciplinary collaborations.

Andi Walker, Artist



If I had designed the perfect professional development opportunity for myself at this stage of my practice, I couldn't have done better than Smeaton Labs... Ellie Harrison, Artist



Leeds Creative Labs Share event © Dustin Smith

### **01 The Art of Engineering**

#### New commission for musicians

- The Marsyas Trio, School of Music Ensemble in Residence, developed a performance inspired by the work of women engineers who followed in Smeaton's footsteps. They collaborated with projectionist Julian Hand and incorporated music spanning three centuries including two specially commissioned works by University of Leeds' students and alumni to produce a piece that was performed at the Howard Assembly Room featuring a relaxed performance—an area of development for both the Concert Series and the HAR, informed in part by School of Music research and audience engagement efforts.
- Music PhD student James Creed responded to a brief to create a new work and performance inspired by Smeaton300.



Marsyas Trio © Dan Merrick

"Being part of Smeaton300 allowed us to connect more deeply with Leeds and its rich history. The project encouraged us to see the intersections of engineering, innovation, and creativity, while generous support from colleagues shaped our research. Ultimately, it was a challenging but hugely rewarding experience that deepened our understanding of Leeds' engineering heritage and its relevance today."

**Marsyas Trio** 

#### Hands on design in LUU

The Great Leeds Build Off', was a pop-up event designed by the Engineering Educational Engagement Team and delivered with the Cultural Institute in the Students' Union. This event challenged students to apply engineering principles in a playful competition, boosting their interest in the Smeaton300 programme.

### DARE Liberty Lecture Panel: AI and the Changing Cultural Landscape

Multi award-winning writer and broadcaster Nick Ahad led a panel of experts contributing their perspectives on this topical issue. Shawn-Naphtali Sobers (Professor of Cultural Interdisciplinary Practice, University of the West of England), Lara Carmona (Director of Policy and Engagement, Creative UK), Dr Katie Gardner (DARE Academicin-Residence), and David Hogg (Professor of Al) joined Nick on stage.

## **O2 For The Public Good**

Inspired by Smeaton's values of using his knowledge and skills for the benefit of society.



#### Be Curious... on tour!

In February 2024, Leeds Industrial Museum and Be Curious collaborated, providing free access to the museum and marking the first ever Be Curious off campus. Visitors met researchers and engaged in activities that brought their research to life. Activities included understanding medical trials through chocolate; living the life of a travelling musician; exploring what safe spaces mean to you; how engineering can improve your pirouette; sustainable composite materials, and Al. Through this, Be Curious developed a new audience that later returned for Be Curious on campus later that year.



During Smeaton300 held at the Leeds Industrial Museum we were able to strike up a conversation with a member of staff leading on the development of exhibitions at the museum. We've since been in touch with LIM to plan a display at the museum that will tell the story of past and present in the context of future materials.

Ashley Victoria, PhD candidate, School of Chemical and Process Engineering 2,000 members of the public

attended the event

8

activities inspired by programme themes at University of Leeds

6

activities inspired by programme themes at Leeds Industiral Museum

50+

jellyfish made by visitors with Immortal Bloom for Light Night

LS+

visitors came from postcodes across Leeds and beyond, with many from nearby neighbourhoods

## **03 Find Our Way Home**

Exploring the significance of civil engineering in navigation, mapping, and migration, and how it has transformed our perception of home on a global scale.

### Lived experience of migration informs research residency and exhibition

Artist Mohammad Barrangi was commissioned to create new work for The Stanley & Audrey Burton Gallery, embracing the Smeaton300 theme Find Our Way Home. During his research residency in Cultural Collections Barrangi focused on Islamic calligraphy, Middle Eastern prints, and textiles, culminating in the exhibition 'Mohammad Barrangi: One Night, One Dream, Life in the Lighthouse.'

In collaboration with <u>The Highrise Project</u> and the 'Welcoming Migrants' initiative, the exhibition included digital artwork by refugees, asylum seekers, and migrants. The Highrise Project reported that participants gained new skills, improved their mental health, and some gained paid opportunities.



One Night, One Dream, Life in the Lighthouse © Justin Lee

Student volunteers also developed '<u>Navigating Home</u>,' a resource page exploring the history of lighthouses, the legacy of Smeaton, and lighthouses in literature.

## 2,893

The exhibition attracted 2,893 visitors and national coverage in The Guardian and artist interview and package on BBC Radio 4's Front Row, hosted by Nick Ahad - his third Smeaton300 event.



One Night, One Dream, Life in the Lighthouse © Justin Lee

Aren't we all looking for a shelter in a "light" house? Amazing exhibition Mohammad, very moving. Loved the music choice.

His amazing work reminds me of my childhood. I am a refugee from Iran and studying in Leeds Uni.





### **03 Find Our Way Home**

#### Storytelling with dance

Dance artist Mahshid Alavi premiered a multidisciplinary live performance at stage@leeds with music by Ozzy Moysey. The performance explored themes from the Barrangi exhibition. It merged water, childhood memories, and Persian mythology, reflecting Alavi's experiences in Northern Iran. The show was a sellout.

Mahshid told such a powerful story about her life as an Iranian girl and woman through the power of dance. Amazing and heartfelt and the music created such an atmosphere

> The event was a phenomenal blend of engaging story, atmospheric music and gorgeous movement

#### Creative writing: journeys and home

University of Leeds Poetry Centre and poet Rachel Bower ran workshops in schools and community settings, using Smeaton-inspired material to inspire poems on home and travel. Selected works won competition prizes.

Collaborative work with the Institute for Transport Studies has led to discussions with the West Yorkshire Combined Authority exploring the potential to expand the project to other communities across West Yorkshire and to publish poems inspired by home and journeys on buses and at bus stops. Poems featured on poster drums along busy bus routes in Leeds over the 2025 Easter holidays.

> adults participated in workshops across four sessions in community settings

children aged 9-11 participated in three workshops



Farnoush © Lauren Hollowday

### Feeling at home on campus: the app inspired by Smeaton

Level 2 BA Liberal Arts students supervised by Dr Dibya Roy (FAHACS) took inspiration from Smeaton's work to develop an app to help newly arrived students learn more about campus and feel more at home in their surroundings. This interactive map offers insights into key locations, historical landmarks, and essential facilities.

My favourite thing was writing the poem and actually reminding myself where home is and how lucky I am to have it.

I thought about home and journeys in a new way.

My favourite thing was when we got to write our poems because mine was from my heart.

Full poems available: Smeaton300: Poems on Roots and Journeys

## **04 Inspired By Nature**



Inspired by Smeaton's interest in harnessing the power of the elements and exploring how this is relevant to modern challenges such as the climate crisis.

### Applying biomimicry to structural challenges

Student representatives from CIVE collaborated with the Cultural Institute to co-develop a research-inspired event aligned with programme themes. Students selected biomimetic solutions for campus structural challenges, resulting in a design competition. Dr Sepideh Khodaparast (Mechanical Engineering) shared her research insights, and alumna Chloe Baldwin, co-founder of Buttercrumble, discussed creative client strategies.

### Climate crisis inspires performance

'We Are Such Things As Dreams Are Made' was a twoweek project by stage@leeds for 21 young people aged 11-19, culminating in a performance in August 2024. Inspired by Shakespeare's Tempest and the global climate crisis, the fully subscribed production included two sponsored places for low-income families. Freelance opportunities for early career assistant writers and directors on the production were included. Both assistant directors reported that the experience had led to other opportunities, including securing a similar role on a major touring show. Some of the young people who were new to the youth theatre have now joined as permanent members. Script development was supported by academic and professional services colleagues in the Schools of Civil Engineering and Environment.



### Sounds from the woods reach campus

Gair Wood Sounds is a sonic art project by artist Alex de Little that will make live-streamed soundscapes of Gair Wood in north Leeds accessible through a sculptural sound installation located behind the Laidlaw Library on the University of Leeds campus. At an early stage in its development in 2024, the synergy between this project and Inspired by Nature provided early investment in R&D with local people.

The support from Smeaton 300 has allowed me to hold a workshop with Soundcamp Collective and a group of members of the public with interests in sound and technology to build and test Streamboxes in the woodland. It showed how differently people engage with the feeds, and how the project has the potential to build a listening community around Gair Wood.

Alex De Little



### 04 Inspired By Nature - Light Night Transformed

On 24th and 25th October 2024 the University of Leeds hosted its biggest Light Night programme to date as part of the city-wide festival. The majority of the programme related to Smeaton300's Inspired by Nature theme.







student commissions



increase in attendance from 2023

Performances and installations that illuminated the campus brought to life the work of researchers, empowered students to create, and attracted a total audience of 13,288 across two nights, breaking previous record attendance levels at all campus venues. Curated and produced by the Cultural Institute, the event was shaped by crossdisciplinary partnerships between artists, researchers, students, and cultural organisations. Works explored research in Music, Mathematics, Engineering, Social Sciences, Physics, Biology, and Climate Science.

#### **Student commissions**

Three students were commissioned to make original stand-alone visual works and a further five created compositions using space data provided by the School of Physics and Astronomy to complement the School of Music's first ever collaboration with a projection artist; Smeaton's Planetarium. The students are taking millions of points of data for a single molecule and trying to encapsulate that in music in a meaningful way. The pieces all work so well because the composers followed their intuitions to connect with the data in a way that works for their music.

99

The commission provided a vital opportunity, it enabled me to translate complex neuroscientific concepts into an accessible visual form, reaching new audiences beyond academic settings. Presenting my work in this public forum fostered valuable discussions with colleagues, scientists, and wider communities, further shaping my practice and reinforcing the role of artistic research in scientific inquiry. **Kelly Cumberland, PhD, School of Design** 



I<u>lluminating Recovery</u> by Dr Eleanor Craig

## 05 Next steps

The collaboration with Foxglove has proved to be so rich, highlighting the benefits of being part of a wider programme and having recourse to expert consultancy and will influence programming going forward. Smeaton300 as a themed programme lent itself to interdisciplinary exploration for so many people, igniting sparks of interest that have created opportunities in research, student experience and cultural programming and production.

Funding has enabled campus producers to experiment with new approaches to the relationship between research and cultural production, rethinking how we programme off-campus, collaborate with diverse partners, and engage with initiatives beyond the University. Cultural producers have worked in new ways with audiences, or engaged new audiences to develop their programmes, most notably through Light Night's significant success. We've also created opportunities for artists to bring their expertise to the project and collaborate with colleagues. This experimentation is timely as we begin to deliver critical work on a University cultural listings site and box office: a central hub for cultural activity on campus and produced by University of Leeds.

Researchers that experienced Leeds Creative Labs continue to work with their artist partners towards bigger projects building on their ideas. Others have trialled new public engagement opportunities and honed their communication skills. Moving forward the Public Engagement team is keen to build on off-campus and themed activities.

For the students involved in all the aspects of creative production Smeaton300 has presented a brilliant chance to be inspired by and develop an idea into professional work seen by large audiences. The Cultural Institute is working with colleagues in Schools to find more avenues to embed this work.

We have much to be proud of, and much to build on.

