Multi-sensory design – creating healthier public spaces

Interactive sensory exhibition programme

What do we mean by multi-sensory design? We explore and experience place through our senses; often this awareness is subconscious. This Interactive Sensory Exhibition gives you the opportunity to begin to consciously discern the sensory experience of the urban environment.
**Programme**

**16:00**  **Registration and a multi-sensory journey**
A sensory journey revisiting highlights and learning points from previous events. See first-hand and discuss emerging research findings relevant to city planning. Explore your senses and quench your thirst with sustenance provided by Flavour SenseNation.

**17:15**  **Journey transition**
Explanations will be given of two very different approaches to multisensory design from The Feelies, followed by Freestate.

**17:30**  **Chair’s welcome**

**17:45**  **Defining multi-sensory design**
A reflection on the learning points from the series to date, a panel of event series chairs’ perspectives on multi-sensory design and a chance for all to share their thoughts on what it is, and its use in day-to-day practice.

Feeling good in public spaces series overview and learning points
- Kay Pallaris, Mapping Futures and Feeling Good Foundation Work Group lead

**Series event chairs’ perspectives:**

Visual spectacle and tactile texture of places
- Selina Mason, Board Director, LDA Design (read by Kay Pallaris)

Sensing the place – experiences and wayfinding
- Dr Jim Coleman, Head of Economics, BuroHappold Engineering (read by Kay Pallaris)

Smellscape and soundscapes
- Professor Emeritus Derek Clements-Croome, University of Reading

Sensing through impairments
- Wendy De Silva, Architect and Mental Health Lead, IBI Group

Back to basics: human physiology, psychology and place-making
- Briony Turner, Knowledge Exchange Manager for the ARCC network

Multi-sensory design – creating healthier public spaces
- Charles Landry, founder of Comedia
18:15 Technical talks – perspectives from research & practice

Retrofitting resilience: a soundscape exploration of existing and adapted flood risk scenarios
- Ed Barsley, University of Cambridge / The Environmental Design Studio

Housing interventions, perceptions, and the quality of the neighbourhood environment
- Prof Wouter Poortinga, Cardiff University

Q&A

How adaptive sensory environments expand human potential
- Maria Lorena Lehman, Sensing Architecture Academy

Spaces for people – exploring a map of gaps
- Alastair Somerville, Acuity Design

Q&A

Sensescapes as ‘brush strokes’ of an urban canvas
- Alexandra Gomes, UCL

The Flourish Model: an example of a multi-sensory conceptual approach to design
- Professor Emeritus, Derek Clements-Croome, University of Reading

Q&A

Knowledge frontiers in the creation and design of healthier public spaces
- Briony Turner, ARCC network

19:10 Chaired dialogue session

A discussion on the implications of using the evidence shown and taking a multi-sensory approach to public realm design. How do we encourage designers to consider the political and social dimensions of architecture, engineering and urban design, along with collaborative and participatory approaches to design and the notion of social spatial justice?

Delegates will be invited to consider how to mainstream the idea of high-quality design through thinking about how humans interact in a sensory manner with the built environment.

20:00 Formal proceedings close, multi-sensory journey reopens

21:30 Event closes

For those wishing to continue the conversation we suggest heading on to Drake & Morgan.

Drake & Morgan, 6 Pancras Square, Kings Cross, London N1C 4AG.
Retrofitting Resilience: a soundscape exploration of existing and adapted flood risk scenarios

Ed Barsley, Project lead for Retrofitting Resilience, Centre for Risk in the Built Environment & Building Performance and Behaviour Group, University of Cambridge

Flooding has the capacity to cause significant physical and psychological trauma to communities. Unless we address this issue by adapting both the built environment and our patterns of inhibition, cycles of repair and despair will continue to endure. This research explores the sensory experiences and consequences of a flood event on existing and adapted spatial conditions through the resultant soundscape of flooding.

Our senses and flavour perception – multi-sensory food & drink reception

Lulie Biggs, Ray Manning, Olivia Phillips, Jane Liu, Claudia Ferrari, Allison Tau & Maren Hunsberger, Flavour Sense Nation

Flavour SenseNation is a science engagement enterprise that invites the public to question the ways in which our senses inform our perceptions of food flavours and determine our dining habits. Launched in 2011 with the help of Wellcome Trust funding, our series of creative and informative activities and experiments demonstrate how our experience of food can be manipulated by our surroundings and our biology, which in turn signals the consequential impact this can have on our health and the environment. We’ve taken our experiments far and wide, enabling the public’s full involvement through immersive exhibitions at museums, festivals and food shows.

This evening we have brought with us a sample of our exhibition experiments and a collection of small bites designed especially for this final Feeling Good in Public Spaces event, with themes that include urban spaces, future foods, growing spaces and multi-sensory.

Growing senses in the city

Natasha Blok, Freelancer, Mish Potato Mash – a collection of ventures with food and fun living at their heart

Spending time in nature helps our mental and physical wellbeing, but how well do we really embrace this idea? Building on previous “How do you feel?” textural experimentation, and “What is the importance of colour, texture and play in urban design?” visual debate, join Natasha on a new adventure integrating these concepts into your own interpretation of the celebration of nature and creativity. Using a mixture of textures both from the natural and built environment, participants will be called on to describe these materials to build a literary anthology of feelings, emotions and perceptions these evoke.

The built environment materials were supplied by the BRE Centre for Innovative Construction Materials, based at the University of Bath.
What is experience masterplanning?

Charlotte Boyens, Adam Scott & Ben Johnson, Freestate

FreeState are an international practice based in London. We are expert Experience Master Planners, Experience Directors and Experience Designers. We design and activate innovative collaborative experiences that people love. We call this approach ‘Experience Masterplanning’ that can be applied at any scale from a single workplace or venue right through to a neighbourhood or entire city. We will demonstrate how designing with the human experience in mind can inspire innovative place and city making everywhere, by engaging with people at every level, whether they are employers, developers, architects or end-users.

The Feelies’ Frankenstein: a multi-sensory storytelling

Grace Boyle, Director, & Laureline Palmade, Sensory technician, The Feelies

The Feelies meld theatre, perception psychology and human–computer interaction research to explore storytelling beyond the audio-visual. Working mostly with VR, The Feelies’ mission is to develop multisensory language to the level of sophistication that society deploys for other storytelling media, and to use to it connect audiences with environments and narratives in a powerful, immersive and empathetic way.

Using the immersive retelling of Mary Shelley’s Frankenstein, participants are invited to wear a blindfold and become the creature, experiencing new connections to this well-known story by listening to all of their senses.

The Feelies’ multisensory Frankenstein was created by Grace Boyle and Saulo Jamariqueli, and features perfumes by Nadjib Achaibou, sound by Antoine Bertin, and the SubPac, a physical audio technology that transfers low frequencies directly to your body. They have recently returned from a multisensory shoot in the Amazon rainforest.

*Please note, this is not recommended for people who are pregnant, diabetic, epileptic or have a pacemaker fitted.*

Sensations of Roman life: sounds & smells in virtual reality and predictive maps

Dr Ian J. Ewart, University of Reading with Dr Hannah Platts, Royal Holloway, University of London, & Dr Tony Krus, Scottish Universities Environmental Research Centre

The Sensations of Roman Life project is investigating the integration of sounds and smells into visual representations of the built environment. We have produced 3D ‘gaming-style’ recreations, and 2D predictive maps showing the distribution of sounds and smells around a neighbourhood. These tools allow a more immersive and analytical experience of the built environment and open up possibilities for a more holistic and sympathetic process for urban design.
Heat risk in urban areas: a climate impact and adaptation tool

Dr Katie Jenkins, ARCADIA Project, Environmental Change Institute (ECI), University of Oxford & Dr Kathryn Janda, Lower Carbon Futures, ECI

As part of the EPSRC funded ARCADIA project a Climate Impact Assessment and Adaptation Model was developed to map spatial patterns of risk, provide information on the probabilities and characteristics of extreme events, related impacts, and implications for adaptation policies. The exhibit displays a sub-set of results, looking at implications of climate change on heatwaves and the consequent experience of thermal discomfort (impacting sense of thermoreception) and the potential extent of mortality in Greater London. By testing the tool, delegates will be able to visualise the extent of heatwave impact to inform where and how urban design adaptation strategies can mitigate this impact.

Simulating a sensory disability: achieving universal design through experiential reflection

Teresa Rumble & Jean Hewitt, Centre for Accessible Environments

The centre for Accessible Environments (CAE) provides training, research, guidance publications and consultancy on accessible design. This interactive exhibit involves a number of wearable technologies and gadgets to try on to simulate a disability. For example, ear defenders/plugs; simulation spectacles of different sight conditions; gloves to simulate arthritis and loss of grip/touch. The team will supervise delegates while trying these experiences and discuss how different site conditions impact the experience of a place when a sense has been lost or impaired. We hope that by experiencing and reflecting on these issues, practitioners can empathise to design universal / accessible places for all.

Mobility, Mood and Place: understanding older people’s emotional interactions with place

Dr Sara Tilley & Dr Katherine Brookfield, OPENspace Research Centre, University of Edinburgh

‘Mobility, Mood and Place’ has been investigating the links between mood, health and place amongst older people. We find that brain activity changes between different types of urban environment e.g. green spaces, residential streets and busier urban streetscapes. Through the walking interviews we have found that familiarity is really important for older people in choosing where to walk, as well as colourful wildlife and nature. This three-year multi-disciplinary project has used a variety of sensory methods including a mobile electroencephalography (EEG) headset and walking interviews to understand emotional interactions with place. There will be demonstrations of the cutting-edge technology used, along with some emerging findings.
Metro Futures: making sense of experience to co-design the future

Prof Peter Wright, University of Newcastle

This exhibit demonstrates the MyPlace participatory platform for experience-based co-design. It was developed to support a major public consultation about the design of the next generation of Metro carriages for the Northeast. Instead of a typical survey-based consultation, participants used video/audio capture to document their travel experiences. Participants collectively made sense of their data by commenting, voting and uploading new video, and used this to stimulate broader public dialogue.

Poster exhibits

The need for a wellbeing science of cities: recent findings from Cambridge Wellbeing Institute and University of Manchester

Jamie Anderson

It’s an exciting time for wellbeing in the built environment but, enthusiasm is way ahead of the evidence. The posters and a number of publications summarise the research which grappled with key challenges from the perspective of outdoor public space. In particular, the research has revealed useful insights in relation to the Five Ways to Wellbeing and subjective wellbeing.

The Five Ways to Wellbeing were devised by the New Economics Foundation as a set of evidence-based actions to improve people’s mental wellbeing. They include ‘Be Active’, ‘Connect’, ‘Give’, ‘Keep Learning’ and ‘Take Notice’. This work was based on the outcomes of the UK’s Foresight Programme’s Mental Capital and Wellbeing Project in 2008 which drew on worldwide research on how to improve mental wellbeing.

How urban design impacts on indoor exposure to outdoor pollutions

Dr Zhiwen (Vincent) Luo

The majority of exposure to outdoor pollution actually occurs indoors as people spend 90% of their time indoors. Effective interventions to reduce such exposure should be sought at the early-design stage in particular urban design. This research will explore the effectiveness of different urban design scenarios on the indoor exposure to outdoor pollution.
City smellscape maps
Kate McLean

Maps of Urban Smellscape are based on data collected from a city’s inhabitants and indicate three layers of smells encountered in the everyday lived experience; background aromas, episodic smells and ephemeral scents. Through visualisation they contribute to discussions the city as multi-sensory.

Mobility and wellbeing in later life
Mark Bevan & Howard Cambridge

The Co-motion project examines mobility and wellbeing in later life. Part of our research focused on mobility scooter users and how they interact with the built environment. We explored how people in later life describe the impact of attitudes and behaviours on their confidence to be mobile, and how their experience of being out and about is affected by the nature of interactions with people around them.

Smellscape vocabulary in transit spaces
Jieling Xiao

The study looks at smellscape in intermodal transit spaces from interpreting people’s descriptions through smell walking. It summarised key components compositing smellscape and indicators influencing people’s pleasantness of smellscape in such spaces. Smellscape in intermodal transit spaces influence people’s daily travel experiences in cities and well-being of using public transport services.

ARCC
Funded by EPSRC, the Adaptation and Resilience in the Context of Change network (ARCC) is staffed and managed by UKCIP, and hosted by the Environmental Change Institute, University of Oxford. The network supports the creation of robust built environment and infrastructure sectors within the UK, to deliver benefits to society, the economy and the environment.

www.arcc-network.org.uk