

Multi-sensory design – creating healthier public spaces



Feeling good in public spaces dialogue series



“The city is an assault on the senses...
By diminishing our sensory landscape,
we approach the world and its opportunities
within a narrow perspective.”

Charles Landry,
The Sensory Landscape of Cities,
from the book The Art of City-Making, 2006



Quiet spaces formed by storm porches, door recesses, shelters, vegetation, squares and parks can provide a buffer or refuge from a noisy street, vital for those with acute acoustic sensitivity or certain mental health conditions.

Low-energy blue-rich white LED lighting can disrupt circadian rhythms and strain eyes – warmer colours are better.

Soundscape mapping can evaluate the acoustics of a space, identifying pleasant and stressful sounds.

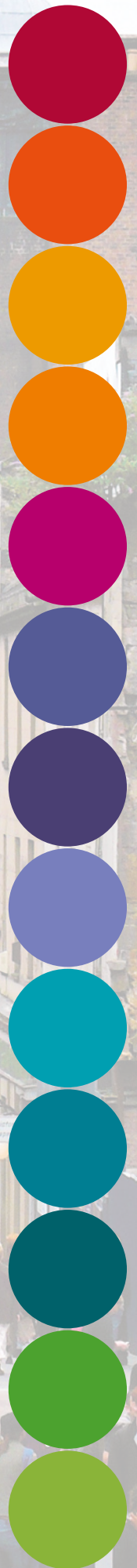
Responsive street furniture could provide drop-down chairs for those in need of a rest via Bluetooth technology, and can reduce street clutter.

Analysis shows that on urban walks, older people find a busy outdoor setting exciting but are more engaged when walking in a park. Interesting streetscapes may encourage people to get outdoors more.

The warming climate will increase use of ventilation, changing the sonic identity of a place, both indoors and out.

Smellscape mapping can help to demonstrate the combination of aromas that make up the identity of a place.

The design, shape and materials used in a space have an effect on acoustics – auralisation can test the impact of new developments on sound.



Briony Turner & Kay Pallaris

The design of the built environment can have a profound impact on perception, place identity and place experience. On behalf of the Adaptation and Resilience in the Context of Change (ARCC) network and the Revealing Spaces workgroup of the Feeling Good Foundation, we ran a series of events focused on the senses, to encourage reflection on the consequences of public realm design on city dwellers' physical, emotional and psychological wellbeing.

Throughout the series we encouraged speakers and participants to think about:

- How do occupants' sensory systems react with their surrounding environment?
- What are the implications of this for sustainable, healthy and adaptive place-making?
- What are the barriers to incorporating this research into current place-making practices?
- How can designing with senses in mind improve cities' and occupants' capacity to adapt to the changing climate?
- How can the evidence be converted to practical tools and methods for urban planning and design practitioners?
- What are the next steps?

Inspiration for the Feeling Good in Public Spaces dialogue series arose as a result of a European Cultural Foundation funded project in which we explored the hidden health and wellbeing impacts of public realm design. This included linking and exposing non-visible, hyperlocal, 'hidden data' such as local health profiles, air quality and sonic identities which, whilst not visible, affect our sensory reaction to a place. The series set out to examine the consequences of public realm design on the wellbeing of urban populations, and understand how design can confine or stimulate sensory experiences, and how this might help people and places be prepared for our changing climate. The dialogues were designed to stimulate discussion among those involved in place-making research and practice.

Between November 2015 and December 2016, we hosted five seminars. These led to collaborations and side events, including a tour of the London South Bank University Acoustics laboratory, and a set of smellscape walk workshops, funded by Southwark Council.

The first event went back to basics, delving into what constitutes health and wellbeing, and examining the relationships between human physiology, psychology and placemaking. We learnt about research into sustainable healthy urban environments, and how to measure and understand the implicit and explicit effects of urban places on peoples' feelings and behaviour. The event uncovered how to generate pro-social behaviour, and explored the use of biourbanism to enhance the human experience of the built environment. Researchers also described how to design psychologically informed cities, and the characteristics of the urban environment that can be modified to improve mental health.

The second event explored the impact of urban design on auditory and olfactory senses. We were taken on a voyage of olfactory discovery, from crowd-sourced city smellscapes to those of urban intermodal transit spaces. We heard about the technology available to create more immersive physical spaces that could improve environmental quality for urban dwellers. We learnt that our odour receptors are less receptive in cold weather, and that odour molecules become airborne faster in warmer environments, so climate change could alter city smellscapes. The expected changes in climate will also have an impact on sound, for instance, a warming climate may trigger increased use of ventilation which will change the sonic identity of a place both indoors and out.

The third event in the series explored the impact of urban design on city dwellers' sight and touch-based sensory experiences, and the pedagogy of design. This was an event of extremes, from trauma to sensory delight. We learnt that memories of conflict can remain apparent within bounded physical spaces, whilst cycling can, through the effects of the urban form on kinaesthetic,

tactile and visual experience of older cyclists, be a form of sensory delight. The event featured a strong emphasis on the use of biophilic design to enhance the visual and sensory elements of public space, and how this could help to reduce the anticipated psycho-physiological environmental stressors of climate change. We learnt of the frequent failure to take into account peoples' ability to selectively direct attention to particular stimuli in the environment. Often, the high visual complexity of the urban environment requires a strong attentional focus at the expense of other sensory stimuli, whereas natural environments are thought to require less focus, enabling people to 'restore' attentional control.

The fourth event formed part of Open-City's Green Sky Thinking week in London. The speakers took attendees back to the first principles of the psychology of how we navigate through our environment, and the role of urban design in aiding dwellers to adapt to varying thermal experiences as the climate changes. Urban form and morphology can affect micro-climates, consequently affecting people's thermal comfort and sensory capacities. Badly designed urban layouts can result in poor navigational legibility and inhibit dwellers' sense of direction. Ideas on how to improve the built environment to give a sense of security in an extreme weather event were also discussed. During the dialogue, participants raised concerns as to whether opportunities for social interaction are unconsciously being designed out of public spaces.

The series explored the impacts of design on a physiological and psychological level, irrespective of age, gender, class or bodily ability. We feel strongly that good design does not discriminate, and yet the physical environment is full of poor design that does. The fifth event in the series brought together research and case studies that tackled how to design an environment to empower people who have lost or have reduced functionality of a sense, or set of senses – something everyone is likely to face as part of the ageing process. In addition, questions were raised and techniques shared as to how to design life-course public spaces for all.

The final dialogue builds on what we've discovered, considering how the senses interact, how they are processed, how we form emotional responses, and the individual and collective perceptions of place. We will showcase a variety of multi-sensory design approaches and discuss how and whether they can be used to improve city dwellers' experiences in urban public space.

By providing this sensory exploration of place, we seek to challenge and perhaps change conventional approaches to place-making, putting the health and wellbeing of people firmly at the heart of design considerations.

Thank you for being part of this journey.



Reflection

The architecture of place and the multi-sensory experience

Professor Emeritus Derek Clements-Croome



The idea of taking into account the senses of a building occupant has extended our thinking into how we smell, touch, hear and see things in the built environment, as well as our psychological interactions with the stimuli it provides. Architecture deals not only with materials and form but also with people, their emotions, environment, space and relationships between them. This makes a rich tapestry of stimuli which touch the human body and mind. In order for this human experience to enhance our lives, buildings should provide a multi-sensory experience.

The senses not only mediate information for the judgement of the intellect, they are also channels which ignite the imagination. This aspect of thought and experience through the senses is stimulated not only by the environment and people around us but, when we are inside a building, by the architecture of the space, which sculpts the outline of our reactions. Merleau-Ponty wrote that the task of architecture was to make visible how the world touches us.

Buildings must relate to the language and wisdom of the body. If they do not, they become isolated in the cool and distant realm of vision. However, in assessing the value of a building, how much attention is given to the quality of the environment inside the building and its effects on the occupants? The qualities of the environment together with the people within it affect human physical and mental performance, and these qualities should always be given a high priority. This is what might be considered an invisible aesthetic and together with the visual impact these make up a total aesthetic.

Buildings can and should provide a multi-sensory experience for people and uplift their spirits. A walk through a forest is invigorating and healing due to the interaction of all the senses. This array of sensory impressions and the interplay between the senses has been referred to as the polyphony of the senses. Architecture is an extension of nature into the person-made realm and provides the ground for perception, a basis from which people can learn to understand and enjoy the world.

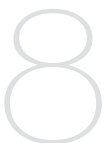
The interaction between humans and buildings is more complex than we imagine. In addition to simple reactions that we can measure, there are many sensory and psychological reactions that are difficult to understand and quantify but we must recognise they happen.

This dialogue series has recognised these ideas and explored how they may become a primary force in design. Sensory experiences have been explored by walks which focused on the senses such as smellscapes or soundscapes. Interacting areas of the social, psychological and physical sciences have featured in the lectures and discussions. As T. S. Eliot wrote in the Quartets – this is a beginning, not an end.



Charles Landry

“ Multi-sensory design understands the difference between the shallow and the deep; or the enveloping and immersive experiences that nurture us and those that overwhelm. It opens perception rather than swamps it with overload. It does not drown and drain identity and instead enriches it in a paced and purposeful way. ”



The Flourish Model: an example of a multi-sensory conceptual approach to design

Professor Emeritus Derek Clements-Croome

University of Reading

Professor Clements-Croome has extensive experience nationally and internationally across intelligent buildings, cities, health and wellbeing, architecture, and building engineering. His current work focuses on wearables and their effects on workplace health. He works extensively with CIBSE and is a member of the UK Green Building Council Panel on wellbeing in homes; he is editor of the Intelligent Buildings International Journal.

Sensescapes as 'brush strokes' of an urban canvas

Alexandra Gomes

UCL Bartlett School of Planning / LSE Cities

Alexandra is a PhD student at UCL Bartlett School of Planning. Her dissertation goes beyond the hegemony of vision in spatial planning and design, and contributes to an analysis of urban space through a comprehensive multi-sensory approach. She has taught modules in sustainability, international planning, urban design and research and learning methods. Since 2014 she has been a Research Officer at LSE Cities, responsible for coordinating the centre's spatial analysis.

Event chair

Charles Landry

Founder of Comedia

Charles is an international authority on the use of imagination and creativity in urban change. He helps cities identify and make the most of their resources and to reach their potential by triggering their inventiveness and thinking. His aim is to help cities become more resilient, self-sustaining and to punch above their weight.

He works closely with decision-makers and local leaders, working through how to plan for the future and how to get there. He stimulates, facilitates and inspires so cities can transform for the better. He helps find apt and original solutions to seemingly intractable dilemmas, such as marrying innovation and tradition, balancing wealth creation and social cohesiveness, or local distinctiveness and a global orientation.

 @LandryTweet

How adaptive sensory environments expand human potential

Maria Lorena Lehman

Founder, Sensing Architecture Academy

Maria is a visionary architectural author, designer, and educator focusing on links between architectural design, science and new technologies. She is the Founder of the Sensing Architecture® Academy. Her research looks for new ways environments can uplift quality of life by innovating experience through multi-sensory and adaptive design, and emerging design process tools.

 @MariaLLehman

Housing interventions, perceptions, & the quality of the neighbourhood environment

Prof Wouter Poortinga

Welsh School of Architecture, Cardiff University

Wouter has conducted research relating to human-environment interactions: environmental risk perception; sustainable lifestyles and behaviour; and housing, neighbourhoods and health research. He currently manages a research portfolio on the health impacts of energy efficiency investments and regeneration in Wales.

 @wouterpoortinga

Spaces for people – exploring a map of gaps

Alastair Somerville

Sensory design consultant, Acuity Design

Alastair is a sensory design consultant. He provides specialist advice on cognition and person-centered design to companies, who create physical and digital products and services. He facilitates workshops on sensory and emotional design for wearables and the Internet of Things for corporations.

 @Acuity_Design

Knowledge frontiers in the creation & design of healthier public spaces

Briony Turner

ARCC network, University of Oxford

Briony is the Knowledge exchange manager for the ARCC network.

 @turner_briony



arcc

Welcome!

"OUR vision is a world where everyone's wellbeing is enhanced by healthier buildings and spaces"

FEELING GOOD FOUNDATION

PROF. RHIANNON CORCORAN

UNIVERSITY OF LIVERPOOL

PROSOCIAL PLACE programme

"aspiring to build RESILIENT communities"

"places change people ~ and they do quite profoundly"

LIFE HISTORY THEORY

RESOURCES

Shows how the quality of our environment directly determines our life strategies and well-being.

we need a balance



THE CRUNCH

LAUNCHING IN 2016

ALL OUR packaging is biodegradable

we have a 90% recycling rate!

air sensor monitors

SASKIA HEIJNEN

WELLCOME TRUST

SUSTAINING HEALTH

momentum is building!
→ MOVING BEYOND JUST ACADEMICS
→ WHO conference on Health and Climate
→ UN CLIMATE SUMMIT

HEALTH IMPACTS OF CLIMATE CHANGE

- HEALTH CONDITIONS SENSITIVE TO CLIMATE CONDITIONS:
 - malaria/malnutrition /diarrhoea
 - SEVERE HEAT WAVES
 - FREQUENT FLOODS AND DROUGHTS
- PERICULES THAT CAUSE CLIMATE CHANGE CAN ALSO CAUSE IMMEDIATE HEALTH PROBLEMS:
 - ENERGY AND TRANSPORT CHOICE
 - AIR POLLUTION



HE FOUNDED WELLCOME TRUST IN 1908 IN LONDON

IT IS NOW A GLOBAL CHARITABLE FOUNDATION DEDICATED TO ACHIEVING EXTRAORDINARY IMPROVEMENTS IN HUMAN AND PHYSICAL HEALTH

"we focus on ANYTHING to do with HEALTH."

DR. GEORGE GOLDSMITHS

NOVEMBER 18TH 2015

BACK TO BASICS

human physiology

psychology and place-making

ANTONIO CAPERNA

INTERNATIONAL SOCIETY OF BIOURBANISM

WELLBEING → feeling good and functioning well.
→ MEDICAL APPROACH - pursuit for maximum pleasure
→ EUDAIMONIC APPROACH - meaningful pursuits

HEALTH IS...



THE WHO DEFINES HOUSING AS BEING BASED ON FOUR INTERLINKED LEVELS, WITH AN ARRAY OF POSSIBLE HEALTH EFFECTS IN EACH.

WHAT MAKES A GOOD PLACE?

- COMMUNITY SPIRIT
- NATURE & OPEN SPACE
- A CLEAN LIVING ENVIRONMENT

WHERE'S YOUR DISMALAND?

PROSOCIALITY

WE MEASURED - FUTURE THINKING - THREATS - HOW PLACES CHANGE OUTLOOK



PLACES CHANGE BELIEFS.

STUDENTS WALKERS APPRECIATE THEIR RELATIVE ADVANTAGE.

HIGH SES FAMILIES ANTICIPATED THREAT MAKE.

CO-DESIGN OF PLACE

- INCREASE IN OPTIMISM
- COMMUNITY THINKING

WELL-DESIGN

HOW CAN WE IMPROVE PLACES OF THE FUTURE?

BIOURBANISM & BIOPHILIC DESIGN

TO CREATE AN ENVIRONMENT USABLE BY ALL PEOPLE THAT REFLECTS THE INHERENT HUMAN AFFINITY FOR NATURE.

HOW DOES THE BUILT ENVIRONMENT AFFECT OUR HEALTH?



HEALTHY CHILDHOOD MATURATION AND DEVELOPMENT HAS BEEN CORRELATED WITH CONTACT WITH NATURAL FEATURES AND TEXTURE.

THE HUMAN BRAIN RESPONDS TO SENSORY PATTERNS AND CUES FROM THE NATURAL ENVIRONMENT.

Back to basics: human physiology, psychology & place-making

November 2015

Wellcome Trust, London

www.arcc-network.org.uk/placemaking

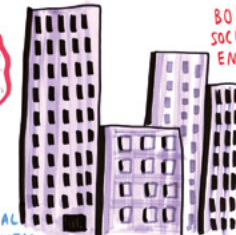
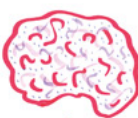
ORGINA HOSANG

MENTAL HEALTH

We all have it!

"NO HEALTH WITHOUT MENTAL HEALTH"

OVERLAP BETWEEN



BOTH PHYSICAL AND SOCIAL FEATURES OF THE ENVIRONMENT ARE LINKED TO MENTAL HEALTH.

CITY AS A 'STRESSOR'

PARTICULAR INDIVIDUALS CAN BE VULNERABLE TO THE DETRIMENTAL EFFECTS OF THE CITY.

SOCIAL ISOLATION

CAN WE MAKE IT A MORE HELPFUL PLACE TO LIVE?

↓ CREATE SOCIAL / COMMUNITY SPACE

THERE ARE HIGHER RATES OF MENTAL ILLNESSES IN URBAN RATHER THAN RURAL AREAS.

feeling good

FOUNDATION

THE CENTRE FOR URBAN DESIGN AND MENTAL HEALTH

PROF. LAYLA MCCAY

MENTAL HEALTH why cinderella wasn't invited to the ball



HOW CAN WE BUILD BETTER MENTAL HEALTH IN OUR CITIES?

- Share knowledge
- INCREASE knowledge
- MOTIVATE ACTION
- INCREASE CRIS-SECTOR DISCUSSION

STIGMA

SELF FULFILING PROPHECY OF LOW PRIORITY

COMPLEXITY

ONE DOSE OF WOODLAND SHOULD DO THE TRICK!



BASICS

ogy,
ace-making



LONDON MOOD APP

MAPPING EMOTIONS TO AREAS OF A CITY.

THERE IS SO MUCH DATA ABOUT TRANSPORT, BUT

THE COMMUTE... What about pedestrians?



PANOS MAURDS

UCL EEG

HOW CAN WE TAKE CINDERELLA TO THE BALL?

- RESEARCH / ASK PEOPLE / ENGAGE OTHERS TO THINK ABOUT HOW WE CAN IMPROVE MENTAL HEALTH URBAN DESIGN.
- SHARE AND BUILD KNOWLEDGE
- TALK TWICE / SHOWCASE

WE KNOW NATURE EXPOSURE CAN IMPROVE MENTAL HEALTH INCLUDING DEPRESSION, STRESS, ADHD AND MORE

WE DON'T KNOW SPECIFIC IMPACTS OF 'DOSE' - TYPE / DURATION FOR EXPOSURES.

WHEN TRYING TO UNDERSTAND PEDESTRIAN MOBILITY QUESTIONNAIRES ONLY GO SO FAR...

HOW CAN WE OPERATIONALISE NEW TECHNOLOGIES TO INFORM DESIGN AND PLANNING?



TREMENDOUS AMOUNT OF VALUE TO PUBLISH THE INTENTIONS OF A PROJECT BEFORE... AND REFLECTING AFTER.

THE MOST IMPORTANT THING IS TO CREATE SPACES LIKE THIS. CO-DESIGN WORKSHOPS OPEN PEOPLE'S EYES

'HOW DO YOU FEEL' THEY DON'T KNOW - YOU HAVE TO EFFORT THEM ALONG TO UNDERSTAND.

DESIGN IS A BELIEF SYSTEM

OFTEN GO BY THE RULES

PLANNERS ARE OFTEN HARD PRESSED AND JUST WANT COLO ANSWERS.

ANY TOOLKITS TO HELP?

IMPORTANT TO ASK THE RIGHT QUESTIONS TO BUILD A LADDER OF UNDERSTANDING

CAN'T ASK 'WHAT PEOPLE WANT' ← DIFFICULT TO ASK WITHOUT A WAY TO PROCESS IT.

NEED A MIDDLE GROUND.



INKYTHINKING.COM

NOTHING LIKE THAT ON LARGE SCALE BUILDING PROCESSES

ASKING THE RIGHT QUESTION IS INCREDIBLY IMPORTANT.

WE MUST START CREATING RESEARCH THAT'S TRANSFERABLE.

WELL-BEING IN PLACES MORE THAN JUST GREEN SPACES

BEHAVIOURAL GENES... IS ANYONE LOOKING AT THAT?

HAVE YOU BEEN LOOKING AT DATA FROM THE COMMERCIAL SECTOR?

... NOT ENOUGH EVIDENCE FOR A CLIENT TO GO WITH - NEED DATA TO BACK UP.

GREAT QUESTION. WE HAVE RETAIL CLIENTS - SO WE WILL ASK!

LOVE TO EXPLORE THAT MORE IN THIS SERIES

IN THE NEXT 18 MONTHS CAMDEN WILL BE GOING THROUGH A HUGE DISRUPTION - IS THERE A WAY TO MEASURE THE MENTAL AND PHYSICAL WELLBEING OF THOSE WHO WILL BE AFFECTED?

MIST RESEARCH IS 'HUNCH' BASED AT THE MOMENT

5,000 PEOPLE SIGNED A PETITION AGAINST A BUILDING WITH A NIGHT CLUB TO BE TURNED TO FLATS - IT MAY SEEM HEDONISTIC BUT SURELY THAT CAN BE COUNTED AS WELL-BEING?

AREAS OF SENSORY STIMULATION

WE HAVE THE TOOLS BUT NEED TO LEARN HOW TO USE THEM

WE MUST START CREATING RESEARCH THAT'S TRANSFERABLE.

WE MUST START CREATING RESEARCH THAT'S TRANSFERABLE.

MS PANING - 'T DO ANALYSIS WELL

Briony Turner

“ I believe that multi-sensory design offers a framing for the conscious consideration and testing of how the built environment can provide a healthy and beneficial human experience. The design and placement of objects, urban form, the opportunities afforded for social interaction and the environmental characteristics of a place all interact at a moment in time to create a multi-sensory experience. The legacy of these sensory stimuli is manifest in the perceptions, emotions and experiences we individually and collectively feel, respond to and remember. ”

Biourbanism as a new epistemological perspective between science, design and nature

Prof Antonio Caperna

International Society of Biourbanism

Antonio is chair of the International Society of Biourbanism. His latest research focuses on the study of smart cities and biourbanism. His goal is the application of complexity theory, evolutionary biology, biophilia and Morphogenesis to define procedure and tools for a human-oriented architecture and urbanism.


 @capernaantonio

Towards psychologically informed cities

Prof Rhiannon Corcoran

University of Liverpool

Prof Corcoran has studied the psychology of mental health and wellbeing for over 25 years. She leads the community wellbeing evidence programme of the UK's What Works Centre for Wellbeing, and the Prosocial Place Programme, and is particularly interested in the interaction between the environment, communities and the mechanisms of mental health and wellbeing.

 @rhiannoncor

Our planet, our health

Saskia Heijnen

Wellcome Trust

Saskia has over nine years of experience working for government institutes, funders, social enterprises and NGOs in countries such as Ecuador, Nepal and Zimbabwe as well as the UK and the Netherlands. She has a degree in Biomedical Sciences and is trained in public health.


 @SaskiaHeijnen

Urban space: a mental health perspective

Dr Georgina Hosang

Goldsmiths, University of London

Georgina's research focuses on the relationship between life stress and mental illness, examining the interplay between genetics and stress in depression and bipolar disorder. She is interested in the link between urban environments and psychopathology.

 @DrHosang

Mental health: the Cinderella of urban design

Professor Layla McCay

Centre for Urban Design and Mental Health

Layla is the founder and director of the Centre for Urban Design and Mental Health. A medical doctor and psychiatrist, she has held a number of roles in public health policy, including with the British government's Department of Health, the World Health Organization, the World Bank, and several global non-governmental organisations. An Adjunct Professor in international health at Georgetown University in Washington DC, Layla has a keen interest in the determinants of mental health and a passion for the built environment.

 @urbandesignmh

Understanding the urban experience through mobile psychophysiological tools

Panos Mavros

Centre for Advanced Spatial Analysis,
University College London

Panos is a PhD Researcher at the Centre for Advanced Spatial Analysis, UCL. He has explored the interactions between space, design, human experience and new media, and introduced the use of BCI and mobile EEG equipment in urban studies. He is currently examining the use of mobile EEG and psychophysiology to study questions on navigation, spatial decision-making, emotion and subjective experience in urban space.

 @MavrosP

Event chair

Briony Turner

ARCC network, University of Oxford

Briony is the Knowledge exchange manager for the ARCC network, facilitating translation of research into built environment policy and practice, and spotting knowledge gaps and opportunities for researchers and stakeholders to work together. Briony's research includes the scaling-up of climate change adaptation of England's existing social housing stock. She also helped to co-found the Feeling Good Foundation. Briony is an experienced housing and regeneration professional and a qualified environmental auditor.

 @turner_briony



arcc

SMELL IS THE GARDEN OF MEMORY

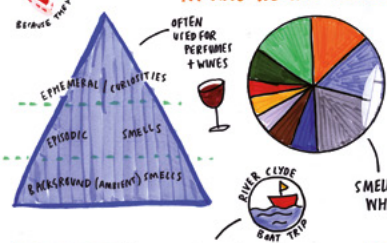
KATE McLEAN

ROYAL COLLEGE OF ART

HOW TO EXPLORE A SMELLSCAPE

SMELLO! THE SMELLSCAPE IS THE SMELL EQUIVALENT OF A VISUAL LANDSCAPE. EXPLORING THE RELATIONSHIP BETWEEN HUMAN AND THEIR ENVIRONMENT MEDIATED BY SMELLS!

WE BREATHE UP TO 24,000 TIMES A DAY! ... AND WE CAN DETECT OVER 1 TRILLION SMELLS

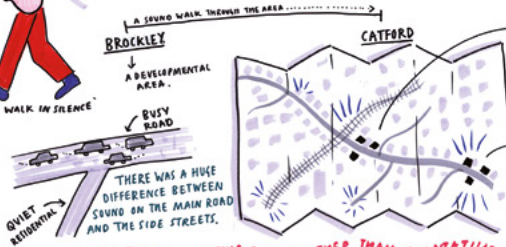


SMELLS HITCHHIKE ON AIRWAYS

CHRIS WOOD

QUEEN MARY UNIVERSITY OF LONDON

SOUNDWALKING IN SOUTH LONDON: LISTENING, PLACE AND SONIC IDENTITY



'INTERESTED IN QUALITATIVE DATA RATHER THAN QUANTITATIVE'

TO FIND OUT INFORMATION TO HELP US UNDERSTAND HOW PEOPLE FELT IN CERTAIN AREAS. WHEN AREAS SOUNDED BETTER? TRYING TO GET THE NEIGHBOURHOOD TO THINK DIFFERENTLY ABOUT THEIR AREA AS PART OF A NEIGHBOURHOOD PLANNING PROCESS.

TRYING TO MAKE LOCAL PEOPLE RELATE TO THEIR AREA DIFFERENTLY TO THEIR WORK OUT THE REAL SOUND ISSUE.

PHD LOOKING AT HOW TECHNOLOGIES CAN REPRESENT AND REPERFORM SPACE.

A CURIOUS PRACTITIONER IN PLACE MAKING

STEVE V

OPEN PLAN MAKING SENSE

30 YEARS AND I WANTED TO LIVE TO BE A TOWN PLANNER.

PLANNERS TEND TO IGNORE A

RELATIONSHIPS BETWEEN STATES AND WEIGNS. HOW CAN WE COMBINE ALL THIS UNDERSTANDING INTO

SMELLSCAPES

IN URBAN

JIELING XIAO

BIRMINGHAM CITY UNIVERSITY

SMELLSCAPES IN URBAN INTERMODAL TRANSIT SPACES: A CASE STUDY OF SHEFFIELD RAILWAY TRANSIT NETWORK



WHAT IS THE SMELLSCAPE QUALITY OF INTERMODAL TRANSIT SPACES?

I TOOK A SMELL WALK

AND... ON-SITE OBSERVATIONS - FORMAL STRUCTURED INTERVIEWS - PLACE/THINGS RATING

"SMELLSCAPE IS THE HUMAN PERCEIVED SMELL ENVIRONMENT OF A PLACE AT A TIME POINT"



HOW CAN WE REPLICATE SMELLS?

PART OF THE PROBLEM IS THE TRANSPORTATION OF SMELL. VISUALS ARE CLEAR BUT SOUND AND TASTE ARE SENSITIVE. THEY CAN BE VERY QUICKLY OVERCOME BECOME INTERACTIVE.

HOW DO WE GET MORE NEIGHBOURHOOD PLANNING, FORKING TO USE THESE TOOLS?

HOW CAN WE GET LOCAL AUTHORITY TO TAKE SENSES MORE SERIOUSLY?

TAKE THEM ON A SMELL WALK?

EDUCATION COULD BE AN ANSWER TO RAISE AWARENESS

27TH J

GLASGOW

PAIRED SMELL WALKS - INTERVIEWS - RESEARCH: 'SEASON SMELLS' & 'GLASGOW SMELLS BETTER'



REFERENCES TO MULTI-SENSORY EXPERIENCES

SINGAPORE



Urban smellscape & soundscapes

January 2016

Alan Baxter, London

www.arcc-network.org.uk/scapes

KEMP

"AS A PLANNER I'M INTERESTED IN DISTINCTIVENESS"

OF HEALTH IN URBAN PLANNING

THE GREATEST THREAT TO THE CITY - SOUNDS OF ENGINEERING.

LOT OF OUR OTHER SENSES.

CARAVAN IS FUNDAMENTAL TO THE IDENTITY OF THE PLACE.

SOUNDSCAPES

IN DESIGN

JANUARY 2016



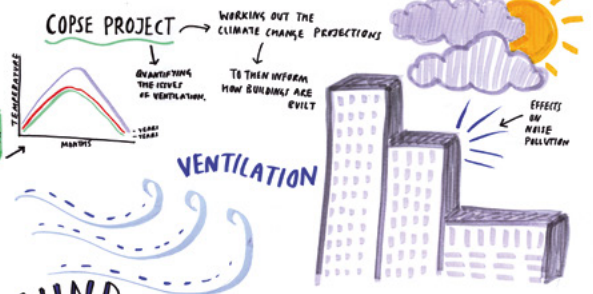
feeling good

FOUNDATION

SMELL IS INTRINSIC TO THE PERSONALITY OF A PLACE

DR MICHAEL BARCLAY
UNIVERSITY OF WALES TRINITY DAVID

EFFECTS OF CLIMATE CHANGE ON THE SENSORY EXPERIENCE OF THE BUILT ENVIRONMENT



DANIELE QUERCIA
BELL LABS

SMELLY MAPS: THE DIGITAL LIFE OF URBAN SMELLSCAPES



INKYTHINKING.COM

Derek Clements-Croome

“ Our existence is enlivened every waking moment by a symphony of stimuli from people, objects, building spaces, task interest and nature. This rich array of inputs to the mind and body generates the multi-sensory experience which can colour and enrich the environment for people to live and work in. Like in music the notes of melodies, harmonies and rhythms magically combine in a myriad of ways to inspire the mind, so too in multi-sensory design which weaves a tapestry and diversity of experience for people to flourish in. ”

Effects of climate change on the sensory experience of the built environment

Dr Michael Barclay

University of Wales Trinity St David

Michael is a lecturer at the School of Architecture, Built and Natural Environments, University of Wales Trinity St David. His PhD was part of the COPSE project (ARCC network) and conducted post-doctoral work at the University of Bath. He's interested in achieving an ever-better understanding of the built environment.

 @Mikeybarcly

Event chair

Professor Emeritus Derek Clements-Croome

Feeling Good Foundation

Professor Clements-Croome has extensive experience nationally and internationally across intelligent buildings, cities, health and wellbeing, architecture, and building engineering. His current work focuses on wearables and their effects on workplace health. He works extensively with CIBSE and is a member of the UK Green Building Council Panel on wellbeing in homes; he is editor of the Intelligent Buildings International Journal.

Making sense of health

Steve Kemp

Executive Director, OpenPlan

Steve's work with the Centre for Urban Design and Mental Health seeks to understand how urban places and communities work, and to put that understanding into practice to help create good places that can support healthy and thriving communities. Steve worked for twenty years in local authority planning departments.

 @SteveKempOP

How to explore a smellscape: Glasgow & Singapore

Kate McLean

Royal College of Art

Kate is an artist, designer, researcher and PhD candidate at the Royal College of Art in London. She is a mapper of urban smellscapes in cities around the world, and is interested in the fine-grained human-centred olfactory perception of the city and the methods by which we can share this highly nuanced information.

 @katemclean

SmellyMaps: the digital life of urban smellscapes

Daniele Quercia

Manager, Bell Labs

Daniele is currently building the Social Dynamics group at Bell Labs in Cambridge (UK). His research focuses on urban informatics. He was a research scientist at Yahoo Labs, a horizon senior researcher at the University of Cambridge, and postdoctoral associate at the department of Urban Studies and Planning at MIT.

 @danielequercia

Reactive soundscapes – how can games audio techniques be applied to immersive sound installations?

Andy Visser

University of St Mark & St John, Plymouth

Andy has just launched a four-year Integrated Masters degree programme in game sound design at St Mark & St John University, and oversees degree programmes at partner institutions. He is Director of Sound This Out, specialising in sound design for large-scale, immersive spaces.

Soundwalking in South London: listening, place & sonic identity

Christopher Wood

Queen Mary University of London

Christopher is an artist and researcher whose work centres on the relationship between place, technology and narrative. He is a radio documentary producer, informing his practice through field recordings and narrative. He is currently using experimental methodologies to research the abilities and implications of GPS technology.

 @whirringcat

Smellsapes in urban intermodal transit spaces

Jieling Xiao

Birmingham City University

Jieling's PhD is a comparative study on smellscapes in intermodal transit spaces between UK and China. Her work provides insights to improve sensory environmental quality by designing smellscapes from an in-depth understanding of human perceptions. She has a particular interest in placemaking through human sensory experiences and everyday life in cities.



arcc



LDA DESIGN

ANDREW HARLAND

BEAUTY OR BIOPHILIA?

HOW DO WE DESIGN BETTER?

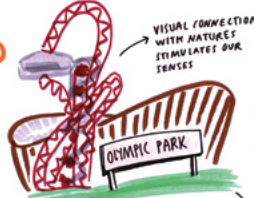
AND WHAT DOES THAT LOOK LIKE...

BIOPHILIA
... IS PEOPLE'S INNATE CONNECTION TO NATURE THAT IS VITAL TO MAINTAINING HEALTH & WELLBEING

BIOPHILIC DESIGN



IS ABOUT BRINGING PEOPLE INTO CLOSE AND FREQUENT CONTACT WITH NATURE, DESIGNING FOR PEOPLE AS BIOLOGICAL ORGANISMS AND NURTURING A LOVE OF PLACE



BIOPHILIC DESIGN BENEFITS

- PHYSIOLOGICAL WELLBEING
- COGNITIVE PERFORMANCE
- PSYCHOLOGICAL WELLBEING
- UNDERSTANDING WEATHER AND TEMPERATURE

WE PREFER PUBLIC SPACES WHICH SHOW THE THINGS WE'RE USED TO SEE IN NATURE
THE OLYMPIC PARK IS AVOIDING A COMMUNITY TO THE LEFT
MORE RESTORATIVE FOR ME WITHOUT THE PEOPLE
WE CAN USE IT IN THE DESIGN PROCESS AND THE DESIGN TEAM

DR POLLY DALTON

OUT OF SIGHT OUT OF TOUCH?

HOW ATTENTION SHAPES OUR VISUAL AND TACTILE EXPERIENCE

A LECTURER ON COGNITIVE PSYCHOLOGY

A FLAVOUR OF WHAT WE WORK ON...

ROYAL HOLLOWAY



SELECTIVE ATTENTION

WHAT YOU PAY ATTENTION TO IS ESSENTIAL TO YOUR EXPERIENCE OF ANY ENVIRONMENT!

FOLLOW THE COIN



THIS IS CALLED ATTENTIONAL BLINDNESS

CAN BE SHOWN WITH VISUAL, AUDITORY AND TACTILE STIMULI

OXFORD BROOKES UNIVERSITY

DO THE SURFACES MAKE A DIFFERENCE? IS SOME RESEARCH NEEDED?

THE PEOPLE LOVE TO HAVE DIFFERENCE IN SURFACES THAT ARE VERY DIFFERENT TO EACH OTHER - OTHER SURFACES

SOME RESEARCH INTO THIS AND HOW ARE PEOPLE PERFORMING WHEN CYCLING WOULD BE INTERESTING

WE NEED TO HAVE A SELECTIVE FOCUS BUT WE ALSO NEED OUR ATTENTION TO BE CAPTURED UNWITTINGLY TOO!

WHEN MORE COMPLEX AND DEMANDS THE TASK IS, THE LESS LIKELY YOU ARE TO NOTICE OTHER STIMULI

WHICH CREATED VISUAL DEMAND CAN REMOVE THE NOTICE OF AUDITORY, TACTILE AND OTHER VISUAL STIMULI

THERE MAY BE SOMETHING SPECIAL WITH NATURAL ENVIRONMENTS THAT HELP US RELAX OUR EYES - COMPARED TO RUGBY LANEWAY FACES

TO SEE WHAT THEY DO - AND TO SEE WHAT THEY SAY THEY DO

KEY THINGS - WE HAVE AN AILING INFRASTRUCTURE AND AN AILING INFRASTRUCTURE - WHICH YOU CAN RELAX FEEL!

EXTENSIVE CONVERSATION WITH FALLING

CYCLING NEEDS TO...

FEEL COMFORTABLE, SAFE, HAVE ATTRACTIVE ROUTES AND CONTRIBUTE TO LIFE!

IT'S NOT TO BE FORGOTTEN THAT A POSITIVE ASPECT CAN BE TREATED AS WELL AS THE BUILDING.

WE OFTEN DISREGARD DIFFERENT MATERIALS

ASSEMBLY - THE ACT OF MAKING FOR YOUR COMMUNITY IS A GREAT EXAMPLE



OUR SELECTIVE FOCUS CAN'T BE TOO SMALL OR ELSE WE MIGHT MISS THINGS LIKE FIRE ALARMS!!

BIOPHILIA, A CONCEPT AS BIOPHILIA WHICH IS BASED ON "NATURE'S PULL" BUT CAN WITH THIS A POSITIVE RESPONSE

I KNOW THIS IS AN ABOUT "FEELING GOOD" BY PURE FACTS HOWEVER THERE ABOUT FEELING UNCOMFORTABLE IN PUBLIC SPACES

IT'S THAT OK AND IF THAT'S NOT CONFUSING?

IT'S A VERY IMPORTANT ASPECT TO BE CONSIDERED

LET'S NOT THINK THERE IS A PROBLEM YOU ARE MAKING A WAY BY STEP BY STEP, BUT IT'S NOT ENOUGH

I WOULD IMMEDIATELY ENCOURAGE THIS TYPE OF PROJECT, AMONGST OTHER BIOPHILIA PROJECTS

LOTS OF PEOPLE WHO HAVE UNDERSTOOD BIOPHILIA, IS IT IMPORTANT TO BE PART OF THE NATURAL ENVIRONMENT? SIGNING - AS A REACTION

MY DESIGN INTERVENTION - 'RECONSTRUCTING THE BARRIERS OF REMEMBRANCE' - 'LIVING SOUND' IN THE PLACE

I HOPE TO CREATE A PLACE FOR MEMORY AND HEALING

HISTORY TAUGHT IN SCHOOLS STOPS BEFORE THE WAR

MEMORIES OF THE PAST HAVE BEEN BURIED UNDER THE SLITS AND GLASS OF NEW DEVELOPMENT

SUBTLE CHANGES TO CREATE PLACE

DR BEN SPENCER

DELIGHTFUL CYCLING FOR ALL?

THE POTENTIAL OF ENHANCED SENSORY EXPERIENCE TO ENCOURAGE CYCLING.

CYCLE BOOM

3 YEAR PROJECT...

WITH THE AIM TO CREATE A TOOLKIT FOR POLICY MAKERS.

PARTICIPANTS WERE 50

ROUTE IN OXFORD

OXFORD

2ND LARGEST CYCLE CITY

WE WANTED TO UNDERSTAND IN DETAIL WHAT PEOPLE'S CYCLING EXPERIENCES WERE LIKE...

CAPTURING VISUAL & ORAL EXPERIENCES

CYCLING IS LIKE STREETS - BY THE WAY

OTHER HANDS ON THE ROAD OF THE ROAD

I WANT TO LIVE WITH GRASS

CYCLING NEEDS TO...

FEEL COMFORTABLE, SAFE, HAVE ATTRACTIVE ROUTES AND CONTRIBUTE TO LIFE!

IT'S NOT TO BE FORGOTTEN THAT A POSITIVE ASPECT CAN BE TREATED AS WELL AS THE BUILDING.

WE OFTEN DISREGARD DIFFERENT MATERIALS

ASSEMBLY - THE ACT OF MAKING FOR YOUR COMMUNITY IS A GREAT EXAMPLE

SEAN 15 YEARS AN AMERICAN

DEJUREF 12 YEARS

MERVEL 10 YEARS

WORK 8.5km / 18KMH HOME 3.2km / 11KMH MARKET 9.1km / 18KMH

ARIANA MARKOWITZ

THE LOOK AND FEEL OF MEMORY: RE-ENACTING BORDERS THROUGH LIGHT AND TEXTURE IN BEIRUT

BORDER MAKING IN HAZARD SPACES

CITIES CAN PLAY AN ACTIVE ROLE IN THE HEALING PROCESS

LEBANON CIVIL WAR 1975-90

KILLED 120,000 PEOPLE

DISPLACED MORE THAN 75,000 PEOPLE

THE MURDER IS A CITY URBICIDE

NO PEACE BUILDING EFFORTS AFTER THE WAR

AS A RESULT THERE IS NO UNITED VERSION OF THE EVENTS

THE 1932 HISTORICAL CASES

HISTORY TAUGHT IN SCHOOLS STOPS BEFORE THE WAR

MEMORIES OF THE PAST HAVE BEEN BURIED UNDER THE SLITS AND GLASS OF NEW DEVELOPMENT

SUBTLE CHANGES TO CREATE PLACE

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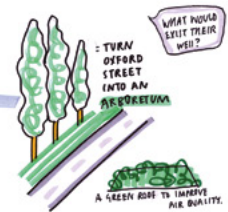
CONTRIBUTING TO THE BUILDING

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KINGSTON UNIVERSITY
+ ARUP
Cities Alive BRIEF

PAT BROWN

GREEN INFRASTRUCTURE POTENTIALS
DESIGN PEDAGOGY IN THE FIELD



feeling good

FOUNDATION

Spectacle

TEXTURE

AN PLACES

COLLABORATIONS BETWEEN A VARIETY OF SPECIALISTS - URBAN PLANNING
FASHION LANDSCAPE SUSTAINABLE DESIGN

JOE CLANCY

BIOPHILIC ENVIRONMENTS IN A CHANGING CLIMATE: CHALLENGES & OPPORTUNITIES
"WE ARE HARDWIRED FOR NATURE"
BENEFITS

WHY DO WE NEED BIOPHILIC ENVIRONMENTS?
AREAS WITH BIOPHILIC DESIGN HAVE PROVEN TO LOWER LEVELS OF VIOLENCE, INCREASE SOCIAL COHESION AND QUICKEN HEALING TIMES IN HOSPITALS!



THE MISSING LINK IN SUSTAINABILITY?

"WE WILL NOT HEAL THE EARTH UNTIL WE HEAL OURSELVES."
- STEPHEN RYAN

- ### 14 PATTERNS OF BIOPHILIC DESIGN
- NATURE IN THE SPACE
 1. VISUAL CONNECTION WITH NATURE
 2. 3D VISUAL CONNECTION WITH NATURE
 3. NON-VISUAL CONNECTION WITH NATURE
 4. ACCESS TO THERMAL COMFORT VARIABILITY
 5. FLEXIBILITY OF WATER
 6. DYNAMIC & DIVERSE LIGHT
 7. CONNECTION WITH NATURAL SYSTEMS
 - NATURE OF THE SPACE
 1. PROPECT
 2. REFLECT
 3. MYSTERY
 4. RISK/PERIL
 - NATURAL ANALOGUES
 1. BIOMIMETIC FORMS & PATTERNS
 2. NATURAL CONNECTION WITH NATURE
 3. COMPLEXITY & ORDER



RESILIENT BIOPHILIC ENVIRONMENTS

- CLIMATE ADAPTIVE PLANT SPECIES & MATERIALS
- MAINTENANCE & MANAGEMENT PROGRAMMES
- INCLUSIVE BIOPHILIC DESIGN
- MICRO RESTORATIVE GREEN SPACE NETWORKS
- INTEGRATED (4)
- DYNAMIC LAYERING

WE ARE RISKING A GENERATION WHERE THE ENVIRONMENT HAS BEEN DESTROYED
"I THINK A YEAR & HALF MAY BE CLOSE TO THE REALITY OF CLIMATE CHANGE."
- THE HON. LORDS

ARE WE RESEARCHING ENOUGH TO UNDERSTAND THE CHANGING CLIMATE?
"WE NEED MORE RESEARCH INTO THE CLIMATE CHANGE."

ANITA KONRAN

CLIMATE PROOFING SOCIAL HOUSING LANDSCAPES
ENHANCING COMMUNITY RESILIENCE

GROUNDWORK

AN ENVIRONMENTAL & REGENERATION CAPACITY
IMPROVE PEOPLE'S PROSPECTS
CREATE BETTER PLACES
PROMOTE GREENER LIVING AND WORKING



OBJECTIVES

- DESIGN & RETAIN AFFORDABLE AND SUSTAINABLE HOUSING THROUGH ADAPTIVE MEASURES IN SOCIAL HOUSING LANDSCAPES
- TEST SOLUTIONS IN 2 DIFFERENT TYPES OF SOCIAL HOUSING SETTINGS
- IMPLEMENT DIVERSE MEASURES THROUGH EMPLOYMENT PROGRAMMES
- DEVELOP A SET OF TRAINING MODULES IN THE WHOLE CYCLE OF DELIVERY - DESIGN - BUILD - MAINTENANCE
- DEVELOP A METHODOLOGY FOR RESIDENT ENGAGEMENT
- EVALUATE TECHNICAL PERFORMANCE AND SOCIAL RETURN ON INVESTMENT

LIFE+

PARTNERSHIP BETWEEN GROUNDWORK WITH THE LOCAL GOVERNMENT OF HAMMERSMITH & FULHAM

5.7 MILLION PEOPLE IN THE UK LIVE IN SOCIAL HOUSING

1630 RESIDENT ENGAGED

27000M² OF LAND IMPROVED

15 GREEN TEAM TRAINED

10000% OF IMPROVEMENTS INVESTED FROM TRAINING DELIVERED TO RESIDENTS

WATER SAVED FOR 1000000 PEOPLE

100000000% OF IMPROVEMENTS INVESTED FROM TRAINING DELIVERED TO RESIDENTS

BRIONY TURNER

ENGINEERING ADVANCES WITH THE POTENTIAL TO ENHANCE THE VISUAL AND TACTILE SENSORY EXPERIENCE OF PUBLIC SPACES IN A CHANGING CLIMATE

THERE ARE MANY ENGINEERING ADVANCES OUT THERE!

BLUE GREEN CITIES

... AIMS TO RECREATE A NATURALLY ORIENTATED WATER CYCLE WHILE CONTRASTING TO THE AMENITY OF THE CITY BY BRINGING WATER MANAGEMENT AND GREEN INFRASTRUCTURE TOGETHER.

URBAN WELFARE PROJECT

- USING BIG DATA TO DETECT THE EFFECTS OF URBAN PLANNING INTERVENTIONS ON INDIVIDUALS
- DETECTION IS THE INDEPENDENT EFFECTS OF URBAN DESIGN - STREET SERVICES AND INFRASTRUCTURE
- AN UNUSUAL MEASURED OBESITY AND MENTAL HEALTH

THE EXAMPLE IS CAUTION OF IS UNDER PARK
"CAN BIOPHILIA BE EXPORTED TO AN AREA AND IMPROVE THE QUALITY OF LIFE?"
"SPEAKING TO COMMUNITY REGENERATION IS VERY IMPORTANT."



TACTILE ROBOTICS

A PROTOTYPE METHOD FOR CREATING THREE-DIMENSIONAL HAPTIC SHAPES IN MID-AIR USING FOCUSED ULTRA-SOUND.

BIOPHILIA OFFERS A DIFFERENT SOLUTION
"BIOPHILIA IS FUNDAMENTAL TO OUR LEVEL."

BLUE HEALTH

EXPLORES THE HEALTH AND WELL-BEING BENEFITS OF AQUATIC ENVIRONMENTS INCLUDING FACTORS SUCH AS URBAN FEELING AND REGENERATION

BEYOND BLUE

BLUE LIGHT EMITTING MAY AFFECT OUR HEALTH
NEW HORIZONS IN NITRIDES - WHICH CAN EIT LIGHT OVER A WIDE RANGE OF COLORS.



inkythinking.com

Selina Mason

“ Multi-sensory design brings the personal into the foreground of our thinking. It suggests a more meaningful relationship between ourselves and our environment. It allows us to enjoy the cacophony of urban life where sensory overload can overwhelm as much as excite us by offering a counterpoint – the deep rooted restorative effect of the natural world; its sounds, smells, textures and joy to the eye. ”

Green Infrastructure potentials – design pedagogy in the field

Prof Pat Brown

Landscape Interface Studio, Kingston University

Pat is a landscape architect, across scales and professional disciplines, and founder & director of Landscape Interface Studio. She is Postgraduate programme leader, Landscape Architecture and PhD Director of studies, Kingston University, including environmental citizenship in the context of flood risk and climate change.


 @LandscapeIS

Biophilic environments in a changing climate: challenges & opportunities

Joseph Clancy

Bradley Murphy Design

Joseph is a project landscape architect and independent biophilic design consultant. He has co-authored several case studies and reports on biophilic design. His MA thesis identified opportunities and constraints for implementing biophilic design in the built environment.

 @G_reen_I_Joe

Out of sight and out of touch? How attention shapes our visual and tactile experience

Dr Polly Dalton

Royal Holloway, University of London

Polly is Director of the Attention Lab at Royal Holloway where they study: attentional capture; the relationship between attention and awareness; and the way that attention acts within and between the sensory modalities of vision, hearing and touch.

 @PollyDalton

Beauty or biophilia?

Andrew Harland

Senior Board Director, LDA Design

Andrew's specialism is the design, management and use of the urban public realm, which includes the delivery of London's four new large parks. He is also passionate about the design of streets and squares. He is currently working on a public realm concept for the transformation of Wood Lane, in the White City Opportunity Area. Andrew has advised and worked for notable public space organisations.

Climate-proofing social housing landscapes

Anita Konrad

Director of Strategic Partnerships, Goundwork London

Anita is an urban planner and ethnologist with qualifications in facilitating transformational processes in urban and rural communities, and experience of designing multi-faceted regeneration programmes.

The look and feel of memory: re-enacting borders through light & texture in Beirut

Ariana Markowitz

Development Planning Unit, UCL

Ariana's work links her interests in security and development. She is pursuing a Master's degree at UCL to understand the transformative potential of design as a tool to reduce conflict.

Event chair

Selina Mason

Board Director, LDA Design

Selina's experience includes commissioning and delivery of complex urban masterplans. She leads the consultancy's Cities programme, focusing on urban and regeneration masterplans.

Delightful cycling for all?

Dr Ben Spencer

Oxford Brookes University

Ben's background is in Urban design, education and research. His current post is at Brookes, working on cycle BOOM (ARCC network). His PhD examined the potential to create inclusive, playable spaces for older people.

 @cycle_BOOM

Engineering to enhance the visual and tactile sensory experiences

Briony Turner

ARCC network, University of Oxford

Briony is Knowledge exchange manager for the ARCC network, facilitating translation of research into policy and practice, and spotting opportunities for researchers and stakeholders to work together.

 @turner_briony



arcc

MEHRNAZ GHOJEH & THOMAS LINDSAY
FROM MASTERPLAN TO SENSORY EXPERIENCE

DR. JIM COLEMAN

TONIGHT WE ARE TALKING ABOUT SPACES AND PLACES AND HOW THESE HAVE AN IMPACT ON PEOPLE - THEIR BEHAVIOURS AND INTERACTIONS.

EVERYONE IN THE ROOM IS AN EXPERT!

EXPERIENCING A SPACE BY A PERSON IS A COMPLICATED INTERNAL PHYSIOLOGICAL - PSYCHOLOGICAL PROCESS WHICH CAN BE AFFECTED BY EXTERNAL AND INTERNAL FACTORS.

DR NEGIN

REFLECTIONS OF TRANSPORT EXPERIENCE OF URBAN ATMOSPHERE

FEMALES REMEMBER MORE FROM MAPS
MALES REMEMBER MORE FROM LANDMARKS

Sensing

EXPERIENCE & WAYFINDING

BUROHAPPOLD ENGINEERING

IGNORANCE vs PARANOIA

PERCEIVED RISK vs ACTUAL RISK

ALLOCENTRIC vs EGOCENTRIC

HONG KONG
HIGHLY DENSE
CHANGED BY SARS.

LACK OF GREEN SPACES
INTUITION vs EXPERIENCE

POWERS OF DESTRUCTION

TEHRAN
NOT ENOUGH PUBLIC SPACE TO CREATE AN EVACUATION PLAN
HOW DO YOU OPEN UP THESE POCKETS OF OPEN GREEN SPACES?

NEIL DAVIDSON

CITY LIVING IN THE MOMENT - USING SMARTPHONE DATA IN URBAN PLANNING.

24L GIBBONS
VAN ALLEN INSTITUTE
ACADEMIC
HELP US UNDERSTAND HOW CITY LIVING IS AFFECTING MENTAL WELL-BEING.

URBAN MIND
ECOLOGIES OF ADDICTION

INGRENBOURNE VALLEY
NATURAL LANDSCAPE + INDUSTRY
CLUTTER.

DOES THE URBAN ENVIRONMENT IMPACT ON ADDICTIVE BEHAVIOURS?
... AND DOES IT DEPEND ON INDIVIDUAL CHARACTERISTICS?

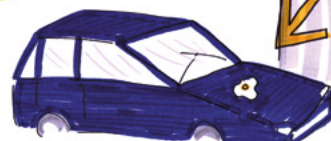
URBAN MIND IS AN APP THAT MEASURES YOUR EXPERIENCE OF CITY LIVING IN THE MOMENT...
THE APP

URBAN MIND

7 QUESTIONS / 7 TIMES A DAY specifically phrased.

CAN YOU SEE THE TREE?
CAN YOU HEAR BIRDS SINGING?

CAN YOU SEE THE HORIZON



PROFESSOR

MARIALENA NIKOLOPOULOU

MICROCLIMATE, THERMAL EXPERIENCE AND URBAN DESIGN: INCREASING OUR ADAPTIVE CAPACITY UNDER CLIMATE CHANGE.

HOW DOES MICROCLIMATE EFFECT SPACE...

'FRIED EGG' SOLAR SLARE
SOLAR RADIATION
SPACING
NEARBY BUILDINGS
VEGETATION
CAN MELT CARS AND FRY EGGS.
STRONG WINDS...

SOLAR RADIATION

EXPERIENCE
PROJECT RUROS (REDISCOVERING THE URBAN REALITY) 10 000 INTERVIEWS EUROPE...
COMFORT ZONES CHANGE DEPENDING ON SEASONS
SUMMER
SPRING

SUMMER

SPRING

Sensing the place – experiences & wayfinding

April 2016

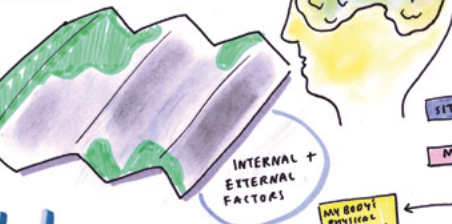
BuroHappold Engineering, London

www.arcc-network.org.uk/wayfinding



MINAEL

...T MODES, AND GPS ON THE
...HERE - LONDON



VISUAL SIGNALS AND

ENVIRONMENTAL SIGNALS

YOU WILL REMEMBER
THE SMELL OF A
PIZZA MARKET
WHICH WILL ALSO
TRIGGER VISUAL
MEMORIES

HOW DO WE PRIORITISE
DEALING WITH ALL THESE
ISSUES?

ARE WE MAKING
PEOPLE MORE
ISOLATED?

GRAND CENTRAL
STATION

JONATHAN SCHIFFERES

HOW DOES THE HISTORIC ENVIRONMENT
MAKE US FEEL?

the Place

...INDING IN A CHANGING CLIMATE...



...PECTATION

...NEWS ACROSS

- TOOLS
- OPENNESS VS ENCLAVURE
 - MATERIALS & COLOUR
 - SHADING
 - VEGETATION
 - WATER

CAN ALL CREATE
POSITIVE
URBAN
EXPERIENCES.

FLAVOUR Sense Nation

STUDY 1: HOW DO OLDER
PEOPLE LEARN NEW
SHORT ROUTES?

STUDY 2: WAYFINDING AND
DESIGN EXPERIENCES
OF RESIDENTS LIVING
IN A RETIRED
COMPLEX

MARY O'MALLEY

CREATING DEMENTIA FRIENDLY ENVIRONMENTS:
HOW TO SUPPORT SUCCESSFUL ORIENTATION FOR PEOPLE
WITH DEMENTIA

SPATIAL NAVIGATION
+ AGEING



OLDER
ADULTS:

- TAKE LONGER
TO LEARN NEW ROUTES
- HAVE DIFFICULTIES USING MAPS TO
NAVIGATE UNFAMILIAR ROUTES
- HAVE IMPAIRED KNOWLEDGE FOR WHERE
LANDMARKS ARE LOCATED ALONG A
RECENTLY TRAVELLED ROUTE.

Egocentric - BODY TO LANDMARK

Allocentric - LANDMARK TO LANDMARK

BECOMES HARDER AS WE GET OLDER.



HOW DO WE CREATE
BETTER LINKS?

MAGIC QUALITIES



IT'S BEEN
PROVEN
THAT GOLFERS
PLAY BETTER
WITH CLUBS USED
BY 'LEGENDS'

LANDMARKS
AS RECOGNISABLE
ICONS.

OPEN SPACE HAS TO
BE MULTIFUNCTIONAL...

HOW CAN WE STOP
THE URBAN ENVIRONMENT
BEING 'BEAUTIFUL' IN NAME
BUT NOT IN REALITY?

NICHOLAS BOYS SMITH

BAD GRASS, LIVING IN BOXES AND UGLY PLACES
IS THE 'SCIENCE' OF PLACE-MAKING CURRENTLY
BEING MISSED?



PLANNING APPLICATIONS

- INNOVATIVE
- ARE ALWAYS USED, BUT...
- BEAUTY
- ARE HARDLY USED

FINDINGS

- MAPS BECAME
HARDER TO
NAVIGATE
- 'DIFFICULT
DEPENDENT'
- LANDMARKS
WEREN'T
APPEARED BY AGE.

IN 1999 NON-LEVEL
ACCESS BUILDINGS
WERE MADE ILLEGAL
TO BUILD

BUT THERE
ARE
PROVEN HEALTH
BENEFITS.

"GREEN IS GOOD FOR YOU..."



BEAUTY IS PREDICTABLE...
GREENERY ✓ LIVELY FACADE ✓
... AND IT REALLY MATTERS ...

LESS POLLUTION IN A CENTRAL CITY LOCATION
AS DESTINATIONS ARE NEARER, SO PEOPLE USE
LESS FUEL... HOWEVER THERE IS
MORE OF A HEALTH RISK.

inkythinking.com

INTUITION

YOU SEE
THE QUEUE

YOU SMELL
THE CAKE

OLD BUTCHERY IN
SMITHFIELD - LONDON

CONNECTING PEOPLE'S
ACTIVITIES AND MEMORIES

QUE PLACES 'WHY LIVE THERE?'
A WHOLE STREET
RESIDENTS CHOSE
THEIR OWN.

MAN CHANGES
THE FUTURE

THE BEST
DESIGNED PLACES
HAVE NO
WAYFINDING.

NATURAL
WAYFINDING

SMITHFIELD - LONDON

WHY LIVE THERE?

A WHOLE STREET
RESIDENTS CHOSE
THEIR OWN.

THE BEST
DESIGNED PLACES
HAVE NO
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NATURAL
WAYFINDING

SMITHFIELD - LONDON

WHY LIVE THERE?

A WHOLE STREET
RESIDENTS CHOSE
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Dr Jim Coleman


“ Multi-sensory design for me is all about how people not only interact with their environment, but how they are enabled to interact with each other. UK cities, along with urban areas in many countries, are undergoing rapid change. Populations are increasing and becoming more diverse as different communities become embedded in new urban locations. A thoughtful approach to the multi-sensory experience of public places and green spaces, as well as the wider built environment is vitally important in making sure that social interactions can be as easy, inclusive and as engaging as possible. ”

Bad grass, living in boxes & ugly places

Nicholas Boys Smith

Director, Create Streets

Nicholas is a member of the government's Design Review Panel and the Estate Regeneration Panel, and has lectured at several universities. He is currently leading various community engagement and design projects as well as advising on estate regeneration and urban design.

 @createstreets

Event chair

Dr Jim Coleman

Head of Economics, BuroHappold Engineering

Jim is a highly-experienced economist specialising in local and regional economic development and urban regeneration. He has particular expertise in London-based regeneration projects and in developing business cases for public sector support for developments.

 @Jimcoleman33

City living in the moment – using smartphone data in urban planning

Neil Davidson

Partner at J&L Gibbons

Neil's projects range from sub-regional strategic plans and public realm frameworks to Heritage Lottery-funded public parks and the design of new city neighbourhoods. He is experienced in the assessment, design, conservation and management of a wide range of parks and gardens.

 @urban_mind_proj

From masterplan to sensory experience

Mehrnaz Ghojeh & Thomas Lindsay

BuroHappold Engineering

Mehrnaz has international expertise in cities and resilience including the Comprehensive Urban Resilience Masterplan for the City of Beirut. Mehnaz co-founded independent research and consulting group, UE:EU, exploring the implications of emergent risks on cities.

 @mehrnazghojeh

Thomas designs masterplan and city-scale resilience and sustainability frameworks, specialising risk and resilience assessment. He is co-founder of UE:EU, exploring the implications of risks on cities and their inhabitants.

Reflections of transport modes & GPS on the urban atmosphere

Dr Negin Minaei

Islamic Azad University, Kerman Branch

Negin is a senior lecturer focusing on architecture and urbanism modules at Islamic Azad University. Her Masters degree focused on understanding people and their behaviour in spaces, and the effects of natural and built environment on wellbeing and health.


 @NeginMinaee

Creating dementia friendly environments

Mary O'Malley

Bournemouth University

Mary is a Psychology PhD researcher, looking at ways to reduce spatial disorientation for older adults with memory difficulties. She currently runs studies to further understand which aspects of communal living environments are most important for successful orientation, and how these can be best positioned.


 @momalley7777

Microclimate, thermal experience & urban design

Professor Marialena Nikolopoulou

Kent School of Architecture

Marialena's expertise lies in environmental design with emphasis on people and their interaction with their environment. Her research on projects such as COPSE (ARCC network) focus on sustainability, use of open spaces and environmental quality, and interventions to encourage behavioural change.

 @MarialenaNikol

How does the historic environment make us feel?

Jonathan Schifferes

Associate Director, The RSA

Jonathan's current work includes exploring the links between heritage and identity at a local scale. With a background in economic geography, community development and urban design, he has led social research projects, working to understand and forecast social and economic impact.

 @jschifferes

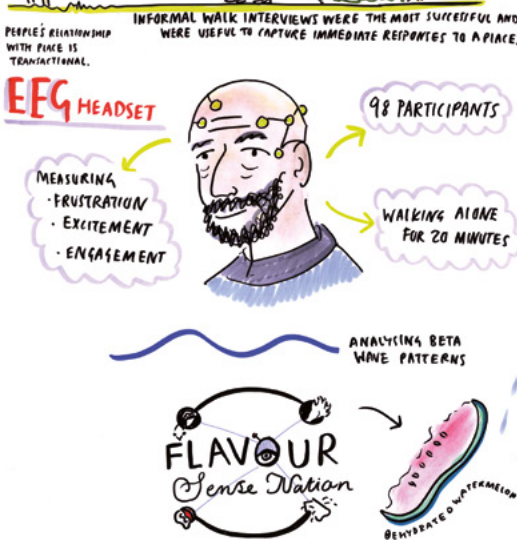


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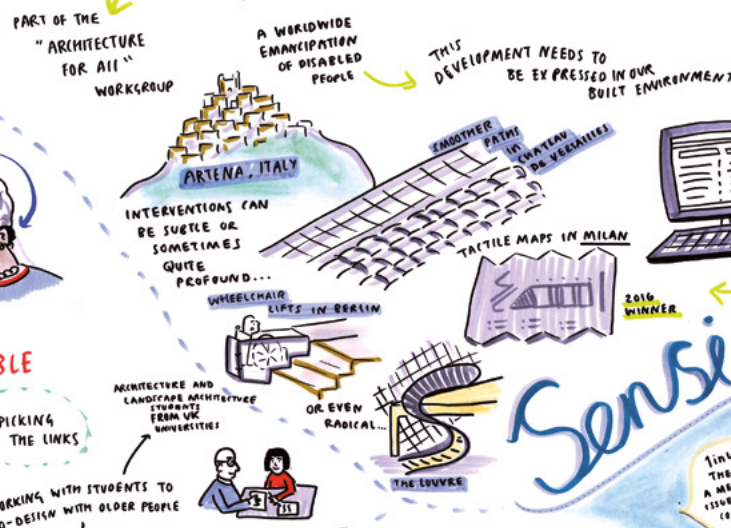
building evidence, sharing knowledge

UNIVERSITY OF EDINBURGH
MAIRE COX

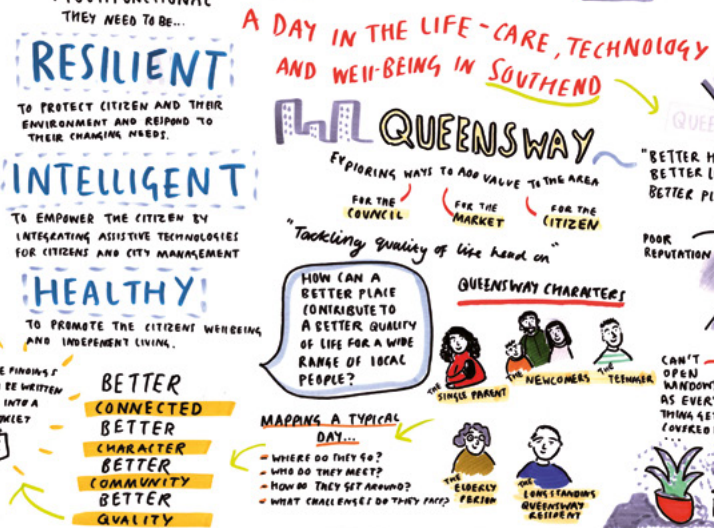
MOBILITY, MOOD AND PLACE - MAKING THE ENVIRONMENT EASY, ENJOYABLE AND MEANINGFUL FOR OLDER PEOPLE.



CHRISTIAAN ZANDSTRA
ACCESSIBILITY AS HERITAGE



MARCUS WILSHERE



Sensing through impairments

May 2016

IBI Group, London

www.arcc-network.org.uk/impairments

ABILITY
SIGN
ARDJ
T WAY
OTE NEW
E DBIKM
DEAS!

JEAN HEWITT

CENTRE FOR ACCESSIBLE ENVIRONMENTS

MAKING SENSE OF PUBLIC SPACES



HEARING LOSS - A HIDDEN DISABILITY THAT CAN OFTEN BE OVERLOOKED...

OVER 99 MILLION PEOPLE WORLDWIDE HAVE HEARING LOSS
1 IN 10 OF US HAVE TINITUS
8 IN 10 THOSE WITH TINITUS HAVE ALSO BEEN DEAFENED

ALSO... TINITUS, BALANCE PROBLEMS, HEIGHTENED HEARING

WHAT ARE THE ISSUES?

- HEARING VEHICLES APPROACHING (including electric)
- CAN BE MORE SUSCEPTIBLE TO TRIPS AND FALLS DUE TO SENSORY OVERLOAD
- BACKGROUND NOISE CAN'T BE EASILY CONTROLLED.

DO WE PLACE PEOPLE WITH HEARING DIFFERENCES AT THE HEART OF THE PROJECT?

SOLUTIONS

- BUILDING FEATURES THAT CAN OFFER SUPPORT
- CHOICES (CONTRAST COLOURS)
- GOOD STREET LIGHTING FOR LIP READING
- CLEAR DEMARCATION OF KERB EDGES
- CLEAR SIGNAGE
- UNDERSTANDABLE ENVIRONMENT

NONE OF THE SOLUTIONS ABOVE HAVE NEGATIVE EFFECTS ON OTHERS



INCLUDES AN ARTICLE ON SENSORY DESIGN

Through Impairments

MAY 2016

WE KNOW NOT GOING OUTSIDE IS BAD FOR YOU... BUT WENDED A QUANTIFIABLE WAY OF CREATING EVIDENCE TO SUPPORT IT.

IF SOMETHING BECOMES VISIBLE THEN THE PROBLEM BECOMES VISIBLE - SO A SOLUTION CAN BE CREATED AND IT BECOMES EASIER TO LEGISLATE

THE ECONOMIC ARGUMENT FOR CO-DESIGN IS NOT KNOWN WELL ENOUGH.

HOW CAN WE TAKE ACCESSIBILITY INTO ACCOUNT FORWARD?

WE SHOULD SEE ACCESSIBILITY AS A CHALLENGE... THAT'S WHY THERE ARE MORE CASES!

WE NEED TO LOOK AT THE INDIVIDUAL AS THERE IS SUCH A WIDE RANGE OF OPINIONS ON WHAT MAKES A GOOD SOCIAL SPACE.

MAKE RESEARCH INTO CHAIRS.

WHAT OPPORTUNITIES ARE THERE... CASES + TRAFFIC

STREET LIGHTING IS A MAJOR OPPORTUNITY

MISSION

WE SHOULD SEE ACCESSIBILITY AS A CHALLENGE... THAT'S WHY THERE ARE MORE CASES!

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IBI

MENTAL HEALTH LEAD AT IBI GROUP

ROSS ATKIN

WHAT I LEARNED FROM SHADOWING DISABLED PEOPLE...

SHADOWED 8 PEOPLE WHO ALL HAD LOW VISION ON THEIR REGULAR ROUTES... HUGE AMOUNT OF DIFFERENCE BETWEEN EACH PERSON.

STILL AVAILABLE ONLINE

DESIGNED A NEW TYPE OF BARRIER

SAW AN OPPORTUNITY TO TAKE ON ROADWORKS



MOST FREQUENT CAUSE OF ISSUES

- DIGITALLY ACCESSIBLE INFORMATION
- HIGH CONTRAST VISUAL INFORMATION
- TACTILE INFORMATION

CITY OF YORK

SHADOWED PEOPLE WITH A VARIETY OF DISABILITIES

MANY STREET FEATURES AFFECTED THEM ALL

ENABLING TECHNOLOGY: LAMPY DIGITAL TECH WHICH EMPWERS DISABLED PEOPLE TO LIVE MORE INDEPENDENTLY.



BRIGHTER STREET LIGHTING

MARSHALL RESPONSIVE FURNITURE

AUDIO INFORMATION WHEN USER WALKS PAST

WE LOOKED INTO WEARABLE TECHNOLOGY



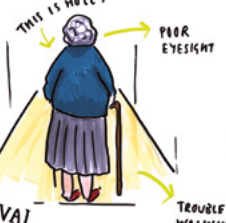
TECHNOLOGY TO ACTIVATE DOORS

RICHARD MAZUCH

"HELLO HOLLY, WELCOME BACK!" A NEW DEMENTIA THRESHOLD.

25% OF PEOPLE WHO 'WANDER' EXPERIENCE SERIOUS OR FATAL INJURY.

40% OF PEOPLE WITH DEMENTIA GET LOST AT SOME POINT USUALLY DURING THE NIGHT...

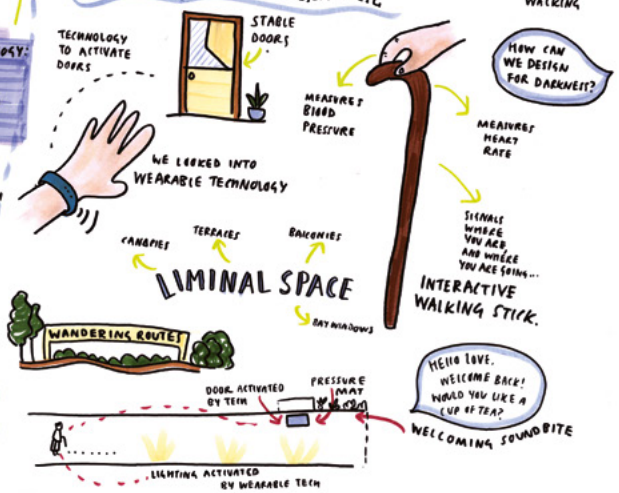


THIS IS HOLLY

POOR EYESIGHT

TROUBLE WALKING

CREATING A SENSE OF ARRIVAL



inkythinking.com

Wendy De Silva

“ Multisensory Design: in architecture, a much overlooked approach to influencing how we experience our surroundings, including our built environment, through hearing, sight, taste, touch and movement. The operation of one sensory modality affects and influences how we experience others, a holistic approach can help mitigate impairments and promote population health and wellbeing. ”

For me, the highlights of the event included discovering:


- Several urban interventions and products can support people with sensory impairments, e.g. dementia, sight / hearing loss and balance conditions.
- Mobile Neural Imaging, a breakthrough new technology, could hugely improve our understanding of how we experience our environment.
- Collaborative design with older people is enabling researchers to promote population wellbeing by encouraging people to stay active.

What I learned from shadowing disabled people...

Ross Atkin

Ross Atkin Associates

Ross is a researcher and designer with a keen interest in public space accessibility. Since 2009, he has been shadowing disabled people as they make journeys as part of research projects for CABE, the RLSB, Centre for Accessible Environments, City of York, Future Cities Catapult, and Bath and North East Somerset Council.

 @rossatkin

Mobility, mood and place – making the environment easy, enjoyable and meaningful for older people

Máire Cox

Communicator, University of Edinburgh

Máire has worked for the OPENspace research centre at Edinburgh College of Art since 2009, primarily on large, multidisciplinary, EPSRC-funded projects. Her role is to engage a wide range of audiences with the centre's research methods, progress and findings, including through knowledge exchange programmes and activities. Máire is currently working towards a touring exhibition on Mobility, Mood and Place (ARCC network).

 @MMPresearch

Making sense of public spaces

Jean Hewitt

Director, Centre for Accessible Environments

Since 2015, Jean has been Director at the Centre for Accessible Environments, a leading authority on inclusive design. CAE provides training, research, guidance publications and consultancy. Jean's research focuses on sensory access in Higher Education, looking at the needs of people with hearing or sight impairments or people within the autistic spectrum. She is a voluntary speaker and trainer for the Macular Society.

 @cae_info

“Hello Holly, welcome back!” A new dementia threshold

Richard Mazuch

Director of Design Research and Innovation, IBI Group

Richard is an architect with international experience, having worked in groups and individually as a consultant, advisor and author in developing new design guideline documents. He has researched and developed unique design tools, enabling designers to deliver healing, learning and working environments underpinned by evidence-based research.

Event chair

Wendy De Silva

Architect & Mental Health Lead for IBI Group

Wendy is an architect and the Mental Health Lead for the design and technology practice, IBI Group. She has worked with clients who are at the forefront of best practice in the delivery of mental health services and is passionate about service improvements. Projects in Wendy's portfolio have been recognised with awards for innovation and for providing best in class mental health facilities. She is currently working on the NHS Healthy New Towns programme, including, for example, growing street plants for food, and CO₂ and oxygen exchange.

A day in the life – care, technology and wellbeing in Southend

Marcus Wilshere

UK Master planning lead, IBI Group

Marcus is an architect specialising in creating liveable neighbourhoods. He is at the forefront of changing the way we plan and build towns and cities – his approach requires thinking beyond the individual building to consider how the whole place works. His work with local communities has resulted in places that work for the people that live there, making them popular, safe and well cared for.

Accessibility as heritage

Christiaan Zandstra

Workgroup Architecture for All of the UIA Region I

As a person with a disability, Christiaan's own confrontation with barriers and inequality has encouraged his study in accessibility and the human relationship with the built environment. His interests focus on architecture and heritage, and he is developing a PhD on more equality in the built environment.



Smells...

- Fried chicken
- Laundry powder
- Candle smoke
- Flowers
- Damp grass
- Bus exhaust
- Car exhaust fumes
- Chips
- Musty shops
- Building site - damp dust
- Years of fish
- Ginger! Sweet!
- Bin
- Tarmac/asphalt
- A floral perfume
- Cigarette smoke
- Grass & dog poo
- Hot sugar
- Sweat
- Incense
- My croissant

“I like Peckham even more - concentrating on smells made me even more aware of cultures, small businesses etc. Hipster smells are welcome.”

“The soundwalk especially made me realise there is never silence in Peckham - but I love it that way.”

“I found it really interesting how senses you don't usually focus on contribute to the understanding of an experience.”

“I will listen to my nose more...”

“Allowed me to tune into Peckham in a way I wouldn't usually. Felt a connection to the area.”

“Realise how the most important sense for all (for me) is visual... But smell is the most evocative!!!!”



Multi-sensory walk through Peckham

July 2016

Peckham Rye Station

Feeling good in public spaces dialogue series

Working with the Feeling Good Foundation, the ARCC network examined how people's senses can be affected by the design of public spaces and building frontages through a series of seminars, between November 2015 and December 2016.

www.arcc-network.org.uk/fgps

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Fergus Carnegie, UrbanNous

Lulie Biggs and the team at Flavour SenseNation

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Alan Baxter

BuroHappold Engineering

IBI Group

LDA Design

Wellcome Trust

UAL: Central Saint Martins

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ARCC network

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UKCIP helps organisations, sectors and governments adapt to the changing climate through practice-based research, and by providing support and advice. They are based at the Environmental Change Institute, University of Oxford.

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December 2016



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