VERTIGO
IN THE CITY

CONTENTS

INTRODUCTION

Davide Deriu and Josephine Kane

The term vertigo has often been used to describe the maelstrom of the twentieth-century metropolis. But, with new technologies producing ever-higher buildings and ever-faster means of transport, what is the significance of vertigo today? And how can it help us to interpret the lived experience of the contemporary city?

Vertigo is a notoriously ambiguous notion, oscillating between pleasure and anxiety, and inhabiting both our embodied and imagined worlds. In biomedical sciences, it denotes a sensation of spinning and is often treated as a symptom of balance system disorders. In everyday language, however, it is used far more broadly to evoke feelings of giddiness, disorientation, or a loss of balance – literal and metaphorical. This popular notion may refer to a fear of (falling from) dangerous heights, which is medically defined as acrophobia. But vertigo is also commonly used to describe the exhilarating sense of dizziness caused by high-speed travel or gravity-defying thrill rides. And it is precisely this multiplicity of meanings and manifestations which makes the discussion of vertigo more relevant today than ever before. Whether we love it or loathe it, vertiginous experience has become an integral part of modern urban life.

Indeed, the rapid expansion of high-rise cities around the world prompts questions about the psycho-physiological conditions affecting growing numbers of people. With a new generation of 'supertall' buildings springing up – notably in Asia and North America – the skyscraper has become an increasingly pervasive (and controversial) feature of urban landscapes, not least in London.

Vertigo, however, is not only related to the experience of great height. A range of factors – including movement, speed, and visual stimuli – create vertiginous sensations. As a result, even familiar urban spaces, such as supermarket aisles and crowded or traffic-filled streets, can pose a serious challenge for people with vestibular conditions.

How do the cultural and social meanings of vertigo relate to its medical definition? What reciprocal insights might be gained from a dialogue between artists, architects, clinicians, scientists and scholars from across the humanities and social sciences? And how might the investigation of vertigo impact on current and future urban paradigms?

With these questions in mind, *Vertigo in the City* brings together a multidisciplinary team of researchers and contributors from industry, practice, and the charity sector to discuss how sensations of dizziness and disorientation are diagnosed, analysed, evoked, induced, critiqued, and represented. By framing the city as a field of unstable perceptions, this project explores how vertigo might offer a critical and productive category for investigating the mental life of the contemporary city.

PROJECT

Vertigo in the City is an exploratory research project supported by a Wellcome Trust Medical Humanities grant and led by Dr Davide Deriu from the University of Westminster, London.

This six-month project culminates in a two-day event, hosted by the University of Westminster (29-30 May 2015). The public Symposium includes presentations by the multidisciplinary research team and a keynote lecture by Turner-nominated artist Catherine Yass. A knowledge-sharing Workshop the following day brings together invited participants from a broad range of vertigo-related specialisms, whose abstracts and biographies are contained in this booklet.

www.vertigointhecity.com

RESEARCH TEAM

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JOHANNA BEYTS

University College London Hospital

VISUAL VERTIGO AND AGEING: IMPLICATIONS FOR CREATING A SAFER ENVIRONMENT

Visual Vertigo is a complaint whereby patients feel a loss of balance or nausea triggered by movement in their environment. This can make crowded streets or complex urban environments populated by moving people and cars very difficult to negotiate. Although visual vertigo makes patients hypersensitive to flicker, they can learn to use stable fixation points or safety cues to help them negotiate these challenges. Many do respond to appropriate treatments, but simpler environments without repetitive contour lines, or flicker are very helpful.

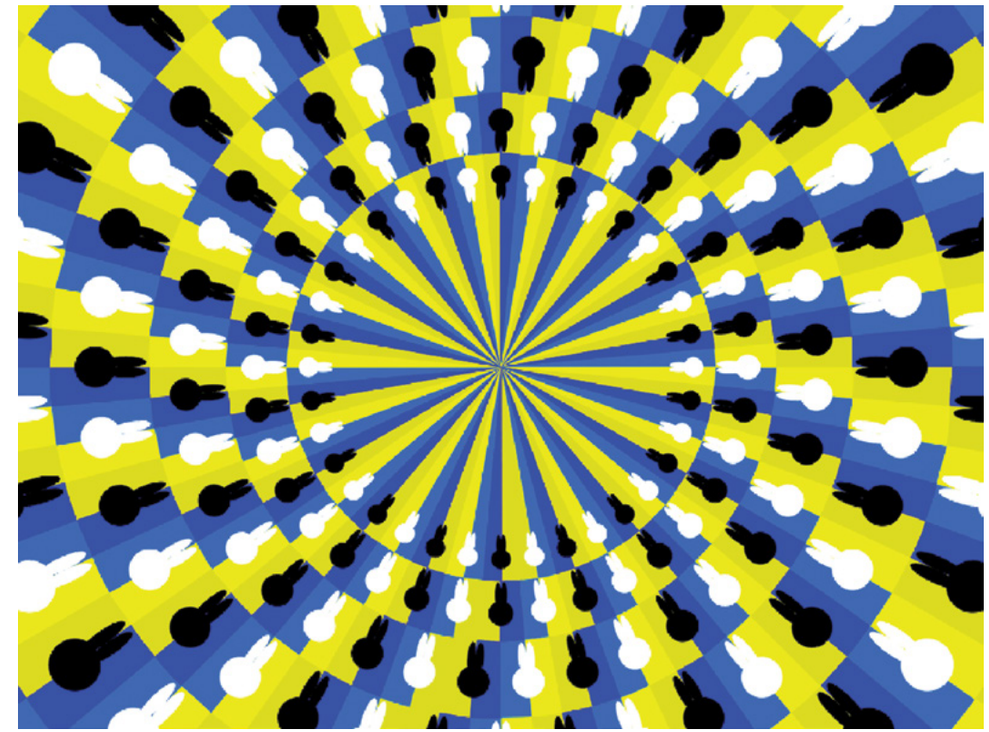
Research on the elderly indicates that, in indoor environments, sharp colour contrasts between furniture, clear fixation points and good lighting help prevent falls. Surface challenges, like cobblestones, or very compliant surfaces can be much harder for the elderly to manage, but clear contours are helpful.

This presentation will use visual illusions to demonstrate how we all hypothesise about our environments, and how flicker and luminance affect this.

Johanna Beyts is a Senior Clinical Scientist who has worked in Audiovestibular Rehabilitation for over 25 years. She began her career at the Institute of Psychiatry, King's College London, before moving to the Royal National Throat, Nose and Ear Hospital where she worked on the relationship between subjective and objective measures of dizziness and imbalance.

In her current role as Vestibular Scientist at UCL, Johanna develops treatments for patients with vertigo and imbalance. She takes a special interest in related conditions such as secondary anxieties and Hyperventilation Syndrome, and uses Cognitive Behavioural Therapy to help patients manage these. She is currently focusing on treatments for visual vertigo and vestibular migraine based on the avoidance of movement or environments which trigger imbalance.

Johanna has published widely on areas such as Human Conditioning and Hyperventilation Syndrome, including a chapter on the rehabilitation of balance disorders in Scott Browne's *Otolaryngology* (6th Edition, Butterworths, 1997). She also lectures on MSc Audiology courses at the UCL Ear Institute, runs an annual masterclass on Vestibular Rehabilitation and chaired the Balance Interest Group of the British Society of Audiology for 5 years. In 2007, Johanna was awarded the Ruth Spencer Prize for services to British Audiology.



Construction Of A Subway By Rabbits © Akiyoshi Kitaoka

AMY BUTT

Architect and Independent Researcher

VICARIOUS VERTIGO:
THE SOCIAL EXPERIENCE OF HEIGHT IN THE SCIENCE-FICTION CITY

> He looks up the mighty helix and sees the levels stretching toward infinity, with banks of lights glittering above him … a dizzying vortex; a monstrous well through which the light from a million globes drifts from above like snowflakes.
>
> **Robert Silverberg,**
> *The World Inside* (1971).

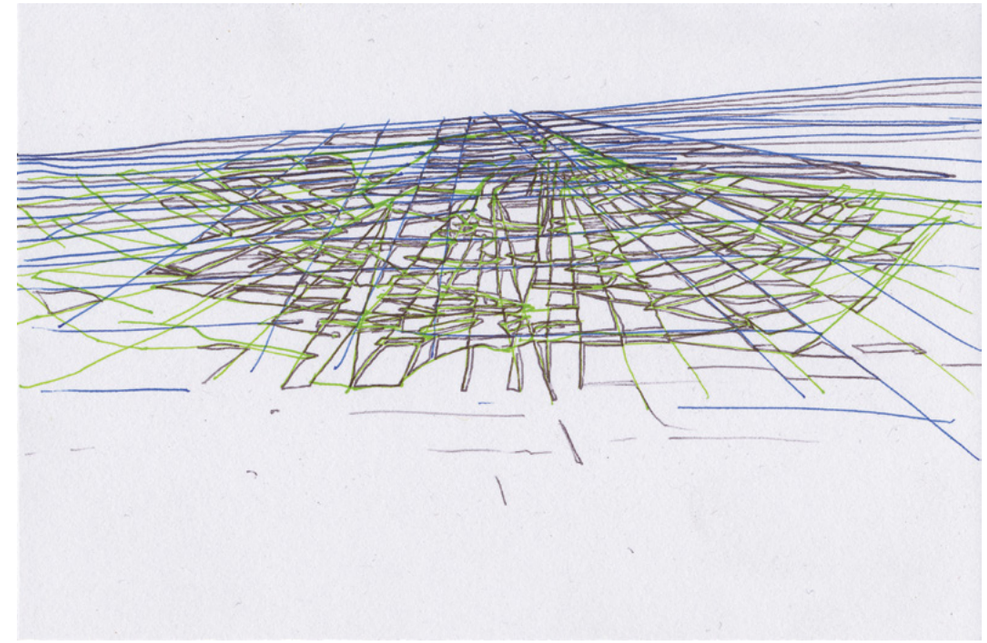
In the entirely self-contained tower-cities of 1970s science fiction, where social stratification is literally translated into floor plates, what significance is placed on the experience or absence of vertigo? This paper will examine the fictional representation of vertigo as a result of vertical urbanism, focusing on three science fiction novels that range from popular to pulp; JG Ballard's *High Rise* (1976), Robert Silverberg's *The World Inside* (1971), and James Blish and Norman L. Knight's *A Torrent of Faces* (1968).

These authors explore a fear for the future of the city, the untrammelled proliferation of the high-rise, and the unknown environmentally deterministic repercussions. The correlation between power and height is so rigidly established it is embedded into the fundamental psychological make-up of the inhabitants.These narratives follow the individual power struggles of literal social climbers, and as our protagonists ascend they confront an inescapable vertigo provoked by unfathomable urban scale. But for those born to the penthouse floors, the view down 100 or 1000 storeys to the ground below is so commonplace as to be disregarded: fear is numbed by exposure and repressed through repetition.

As readers we are prompted to experience vicarious vertigo, either empathising with characters who encounter this for the first time, or on behalf of characters who have had such human frailty bred out of them. Vertigo, then, is not just a device for social stratification in the novels, but its absence provokes the reader to regard it as something integral to urban experience. To lose it might be to lose a sense of awe and proportion, an awareness of our place in a vertical world.

Amy Butt is an independent researcher and practising architect. As Associate Director at BPR Architects, she specialises in education buildings and is a founding member of architecture collective Involve. Her current projects include the Forum North Science and Technology centre at Middlesex University. As an independent researcher, Amy is interested in the way in which the fictional worlds we construct influence and reflect the world we inhabit. She is a regular guest lecturer and invited critic, speaking about utopian thought and the imaginary in architecture through science fiction literature and film. She is developing her Master's thesis 'The View from Below' into a book examining 1970s science fiction and its relationship to public perception of the high rise. Amy was a guest speaker at the recent *Building Brave New Worlds* event hosted by the BFI and Design Council (2014) and has written 'Control Towers: Life and Limitations in *The World Inside*' for *LO-RES* journal (forthcoming, www.lo-res.se).

www.involvearchitecture.com
www.bprarchitects.com



EMILYN CLAID

University of Roehampton

FALLING OUT OF LINE

Falling Out of Line is undergirded by psychosomatic approaches to acts of falling. Claid draws on her knowledge as a movement practitioner and Gestalt psychotherapist to explore falling: physically, psychologically, philosophically and metaphorically within workshop processes, writing and choreographic performance making. Somatic practices encourage falling towards the ground as a necessary pathway for changing fixed patterns in our bodies, encouraging mind/body awareness and initiating physical and psychological change. Yet falling can also be painful, dangerous and can destroy lives, communities and infrastructures. So the project is centred around a paradox: in falling, we are victims of gravity and agents of change.

One strand of the project considers how we might slow down our meetings, to unfix outcomes, explore between-ness and intersubjective responses to each other's actions. Falling out of fixing things we encounter uncertainty as a source of understanding of how we are affected by each other's lives and our environment.

Emilyn Claid is an independent dance artist, Professor of choreographic practices at Roehampton University (London) and a Gestalt psychotherapist. Throughout the 1970s and 80s she was at the forefront of the UK experimental dance scene and in the 1990s she worked as an independent choreographer. In 1997 Emilyn was awarded a PhD and published *Yes? No! Maybe… Seductive Ambiguity in Dance Theatre Performance* (Routledge 2006). For ten years Emilyn directed Choreography at Dartington College of Arts (2003-13). Choreographic research has taken her to Auckland, Hong Kong, Singapore, Berlin, Helsinki and Beirut. Alongside her professorship at Roehampton, Emilyn has a private psychotherapy practice in London. Research projects such as Falling Out of Line interweave between the two fields.

roehamptondance.com/falling/
www.emilynclaid.co.uk

Falling About Research Lab, Siobhan Davies Studios, London 2013

DAVIDE DERIU

University of Westminster

ARCHITECTURE AND VERTIGO: STATES OF SUSPENSION IN THE VERTICAL CITY

In recent years, the growth of vertical cities around the world has been increasingly associated with the pursuit of dizzying experiences that reflect, and respond to, different states of suspension. Examples abound in contemporary high-rise architecture: the observation decks of American skyscrapers such as Chicago's Hancock Centre and the Willis (Sears) Tower, for example, have been retrofitted with overhanging ledges that invite an immersive experience of the urban abyss. A similar intent to augment the traditional panoramic view with a visceral bodily sensation also underlies the restyling of historical monuments such as the Eiffel Tower and London's Tower Bridge with vertiginous glass floors. While urban towers are reconfigured as machines for thrilling, at the same time a generation of daredevil explorers – also known as *rooftoppers* or *skywalkers* – have been climbing up their cities summits in order to capture unprecedented views from on high. The recent trend of 'vertigo-inducing photography' reveals a desire to reclaim the city's uppermost vantage points, and signals a fundamental link between these dangerous (and often illicit) spatial practices and the cultures of self-representation in the age of social media. Furthermore, if we consider funambulism as the vertigo-defying practice par excellence, we can obverve how the vertical city has become not only a favouritestage for high-wire walkers – such as Philippe Petit and Didier Pasquette – but also the site of interactive media performances, as in the recent stunts of Nik Wallenda where suspense and suspension are conflated into a live streaming event. Can we interpret these various projects, practices, and performances as symptoms of a distinctive culture of urban vertigo?

Davide Deriu is Senior Lecturer in Architecture at the University of Westminster, and is currently leading the Vertigo in the City project. His main research interests lie at the intersection between spatial and visual cultures, with a particular focus on representations of the modern city. After taking his PhD at The Bartlett (UCL), he was awarded post-doctoral fellowships from the AHRC, Yale University's Paul Mellon Centre, and the Canadian Centre for Architecture, where he also curated the 2011 exhibition 'Modernism in Miniature: Points of View'. Davide's work spans a wide range of subjects, from underground space to aerial visuality, and has been published in periodicals, such as *Architectural Theory Review* and *The Journal of Architecture*, as well as numerous books including *Forty Ways to Think about Architecture* (Wiley, 2014), *Camera Constructs* (Ashgate, 2012), and *The Image and the Witness* (Wallflower 2007). He co-edited the volume *Emerging Landscapes: Between Production and Representation* (Ashgate, 2014), and is a founding editor of *Architectural Histories: The Open Access Journal of the EAHN* (European Architectural History Network).

westminster.academia.edu/DavideDeriu

360 CHICAGO (formerly John Hancock Observatory)

KAREN GASKILL

Independent Curator

CITIES OF DISORIENTATION

This presentation will consider aspects of vertigo, dislocation and the uncanny in relation to the city. Drawing from the origins of spatial anxiety, and considering the work of Anthony Vidler and the architecture of Daniel Libeskind, Gaskill will discuss how architecture can be considered a direct translation from language.

The video work of Rose Butler and Mark Lewis provides a reference for how our relationship to the city can be explored through film, and a sense of dislocation can be made manifest through filmic techniques. Both artists use well-known techniques to distort our perception of the city in order to explore the relationship between the film and the viewer. Each draws the viewer in, whilst at the same time pushing them away through disorientating edit techniques, reflecting spatial anxiety.

Karen Gaskill is an independent curator and academic based in London. As a Curator, Karen works nationally and internationally with galleries, organisations, institutions and other platforms. Her work and curatorial interests span conceptual art, participative and process-led practices, moving image and media art. Karen is currently directing and curating the Crafts Council's new Innovation Programme, which explores crossovers between contemporary craft practice, science, engineering and technology. Previously, she was acting Head of Exhibitions at Crafts Council from August 2012 to April 2013. She was also the founder, co-director and curator of Interval from 2005-2009, an arts organisation based in Manchester that provided a critical forum and exhibition platform for emergent to mid-career artists working with technology.

Karen is External Examiner at Liverpool John Moores University for the Digital Media Design Course International Programme, Malaysia, 2012-2016. She has held academic posts at Sheffield Hallam University as a Senior Lecturer in Photography and Curatorial Studies, at the University of Huddersfield as a Lecturer in Fine Art Media, and guest lectured at institutions across the UK.

@Karen_Gaskill

One Lime Street, Rose Butler and Kypros Kyprianou. Supported by Arts Council England

JOHN F GOLDING

University of Westminster

VERTIGO: SICK ENVIRONMENTS OR SICK PEOPLE

Vertigo is often loosely defined as 'dizziness', which can have various meanings including simply feeling lightheaded. From a more medical standpoint vertigo refers to a disorientating false sensation of either the visual world moving or the person physically moving. Intense and sustained vertigo may eventually elicit further symptoms such as nausea and sweating and, in a transport environment, is often termed 'motion sickness'. Environments vary enormously in their potential to provoke vertigo. Sitting quietly in a chair has little vertigo potential whereas riding on an extreme rollercoaster has much greater vertigo potential. However, individuals vary enormously in their sensitivity to such environments.

Vertigo is the product of the interaction between the degree of vertigo potential of the environment and individual susceptibility to vertigo. This becomes most obvious if we examine extreme groups of people. In some patient groups who are suffering vestibular (balance system) disorders, lying down in bed may provoke intense vertigo. Similarly, in Meniere's disease, an intense attack of vertigo may occur suddenly in the absence of any obviously provocative environment. At the other end of this susceptibility dimension, ice dancers, trained fighter pilots, and astronauts can tolerate motion environments that many would find very vertiginous, and only succumb to the most extremely provocative environments.

This dichotomy can be summarised as the 'Healthy Person in a Sick Environment versus Sick Person in a Healthy Environment'. In the city, some environments which have little effect on most people are vertiginous for very susceptible individuals and limit their quality of life. Riding a rollercoaster is a choice for personal entertainment.

But access to public parts of the city including some escalator systems, glass elevators, moving advertisements and so on, are not so easy to avoid. To what extent should planners take into account the vertigo sensitivity of some groups of the population when designing such aspects of new buildings or urban transportation or the street scene?

John Golding is Professor of Applied Psychology at University of Westminster, London. He originally trained as a biochemist at Oxford, but became interested in psychology, gaining another first degree in psychology before completing his DPhil there on the physiological and psychological effects of smoking. John went on to research psychoactive drugs and pain relief in the Pharmacology Department of Newcastle Medical School before an extended period in government service. During this time, he conducted wide ranging applied research at the RAF Institute of Aviation Medicine and the DERA Center for Human Sciences, investigating motion sickness, cognitive performance in divers, desensitisation of pilots, and military selection and training. John holds an honorary Professorship in Psychology at Guys & St Thomas's Hospital, Kings College, London, and is Visiting Professor at Imperial College, London. His current research projects focus on motion sickness, spatial disorientation and health psychology. John is the author of the Motion Sickness Susceptibility Questionnaire Short Form (MSSQ-Short).

westminster.ac.uk/__data/assets/pdf_file/0010/47539/MSSQ-short.pdf

Tate Escalator, London by Ashley Kingston (CC Licence)
www.flickr.com/photos/ashleykingston/6836916600/in/set-72157607061050551

STEPHEN GRAHAM

Newcastle University

SUPER-TALL AND ULTRA-DEEP: THE VERTICAL POLITICS OF THE ELEVATOR

Entire libraries can be filled with volumes exploring the cultures, politics and geographies of the horizontal mobilities and transport infrastructures that are intrinsic to urban modernity (highways, railways, subways, public transit and so on). And yet the recent 'mobilities turn' has almost completely overlooked the cultural geographies and politics of vertical transportation within and between the buildings of vertically-structured cityscapes.

This research attempts to rectify this, first, by making elevator travel central to discussions about the cultural politics of urban space and, second, by connecting elevator urbanism to the even more neglected worlds of elevator-based descent in ultra-deep mining. The research addresses, in turn: the historical emergence of elevator urbanism; the cultural significance of the elevator as spectacle; the global race in elevator speed; shifts towards the splintering of elevator experiences; experiments with new mobility systems which blend elevators and automobiles; problems of vertical abandonment; and, finally, the vertical politics of elevator-based 'ultra-deep' mining.

Stephen Graham is a scholar and author who researches cities and urban life. He has an interdisciplinary background linking human geography, urbanism and the sociology of technology. Stephen uses this to explore the political aspects of infrastructure, mobility, digital media, surveillance, security and militarism, emphasizing how these shape contemporary cities and urban life. His books include: *Telecommunications and the City* (Routledge, 1995) and *Splintering Urbanism* (Routledge, 2001), both with Simon Marvin; *Cities, War and Terrorism* (Blackwell, 2004); *Disrupted Cities: When Infrastructures Fail* (Routledge, 2010); *Cities Under Siege: The New Military Urbanism* (Verso, 2011), and *Infrastructural Lives* (with Colin McFarlane, Routledge, 2014). Graham's latest research focuses on the political aspects of verticality. A book on this theme – *Vertical: Sewers, Skyscrapers, Satellites (and Everything in Between)* – is currently in preparation.

Park Vista Hotel, Gatlinburg, Tennessee. *No Hay Problema* by code poet (CC License) www.flickr.com/photos/alphageek/2615427336/)

LUCINDA GRANGE

Independent Photographer

OUTSIDE THE LINES

Drawing on her own experience of climbing and photographing some of the world's most iconic tall buildings – from London's Battersea Power Station and the Firth of Forth Bridge, to Notre Dame in Paris and the Great Pyramid at Giza – Lucinda Grange will give a personal account of the challenges and rewards of working at dizzying heights.

Seeking out unusual and hard-to-access places from which to view the city, Lucinda's vertigo-inducing images raise questions about security and the urban environment – both in terms of physical safety and ownership. By placing her own body centre stage, Grange's work challenges our perception of scale and height, whilst also offering new perspectives on the city laid out below. The talk will include personal reflections on the sensations of vertigo, the act of moving up and down tall buildings, and of making subterranean descents. Finally, Grange will discuss people's reactions to her work, and how visual tactics can be used to increase the vertiginous impact of photographs.

Based in the North East of England, adventure photographer Lucinda Grange travels the world, shooting from extremes above and below the public footpath. Lucinda chooses to shoot in locations considered out of bounds by most people – in physical, mental and logistical terms. When above ground, scaling famous buildings and structures, Lucinda's work is often described as vertigo inducing. Her photographs enable the viewer to experience her adventures vicariously, whilst challenging them to reconsider the environment they find themselves in.

Her work has been featured in the national and international press, and exhibited at the Museum of London and Calumets' Gallery, New York. A selection of her photographs was recently published in *Outside the Lines* (2013). Continuing to explore the unseen, Lucinda is now working on a project documenting various underground spaces.

www.lucindagrange.com

On the Face of Danger © Lucinda Grange

MICHAEL GRESTY

Imperial College London

SPATIAL DISORIENTATION IN ARCHITECTURE

'Spatial orientation' is fundamental to the organisation of purposeful behaviour and has both physiological and psycho-social spatial dimensions which are profoundly affected by architectural structures. At a physiological level, spatial orientation is necessary for the organisation of sensory-motor tasks such as ascending a staircase, whose appearance and structure must reflect the perceptual abilities and climbing capabilities of the protagonist. Psycho-social determinants structure physical space in terms such as permitted versus forbidden zones, and appropriate proximity to other people. Accordingly, disorientation may cause multi-factorial dysfunction, malaise and disruption of social behaviour patterns. In addition to the more obvious impact of architectural disorientation – such as impaired traffic circulation, location, work task, acro-, agora- and agero-phobias – disorienting environments may also have less obvious consequences. These may involve 'low level' autonomic responses including a form of motion (or 'building') sickness, as well as the disruption of 'higher' psycho-social behaviour patterns and challenges to individual sensibilities, which cause distress. Examples will be given of famous buildings and installations which, intentionally or not, are disorienting in ways which impair the ability of occupants to function effectively, can offend sensibilities and even make people ill.

Following a degree in Psychology and Sociology and a doctorate in Physiology, Michael Gresty trained in human factors with the RAF Institute of Aviation Medicine and thereafter held a NIH Fellowship in the USA. Returning to the UK, he worked for the Medical Research Council at University College and Imperial College London until recent retirement. He is presently Honorary Visiting Professor at Imperial in the Division of Brain Sciences, where he lectures and works on spatial disorientation and motion sickness. His main interests include Romanesque and medieval art and architecture, classical and medieval history, sailing his yacht in the Golfe du Lion and astro-navigation.

Chair c1910

JONATHAN HALE

University of Nottingham

VERTIGO AND PHENOMENOLOGY:
THE BODY AND THE CITY

One of the classic definitions of the philosophy of phenomenology is 'the study of how phenomena appear to the consciousness'. In other words of how things in the world appear to us, in human experience, as distinct from what they are 'in themselves'. In considering the ways in which contemporary cities are experienced, it seems natural that phenomenology would have something to offer. In fact, each of the key thinkers from the phenomenological tradition – Edmund Husserl, Martin Heidegger and Maurice Merleau-Ponty – provide insights into the nature of perceptual experience that might shed light on the phenomenon of urban vertigo. Heidegger's notion of anxiety as a key characteristic of being-in-the-world, and Husserl's understanding of time as a complex layering of past, present and future, both suggest that our grasp of the 'larger scheme of things' is not something immediately given in experience but rather something that has to be continually worked for. Likewise Merleau-Ponty's description of the role of the body schema as a constantly developing range of skills for coping with the world highlights the fact that even our sense of basic bodily orientation exists in a state of fundamental instability and with the constant risk of breakdown.

Jonathan Hale is an architect and Associate Professor & Reader in Architectural Theory at the University of Nottingham. His research interests include: architectural theory and criticism; phenomenology and the philosophy of technology; the relationship between architecture and the body; digital media in museums and architectural exhibitions. Jonathan is currently working on a book on the philosopher Maurice Merleau-Ponty for the Routledge series Thinkers for Architects, due to be completed in 2015. Previous publications include *Museum Making: Narratives, Architectures, Exhibitions*, co-edited with Laura Hanks and Suzanne Macleod (Routledge, 2012); *Rethinking Technology: A Reader in Architectural Theory*, co-edited with William W Braham (Routledge 2007); and *Building Ideas: An Introduction to Architectural Theory* (Wiley, 2000). Jonathan is currently Head of the Architectural Humanities Research Group and, previously, founding Chair of the international network Architectural Humanities Research Association. He is an active member of the interdisciplinary Science Technology and Culture research group at the University of Nottingham, as well as the Sense of Space group, a collaboration with the departments of Philosophy, Psychology and Sociology.

@hale_jonathan

3 Circuit Labyrinth by Jim Buchanan, University of Nottingham. Photo by Jonathan Hale

NATASHA HARRINGTON-BENTON

Ménière's Society

LIVING WITH DIZZINESS

People suffering from a vestibular disorder rely more heavily on the information from their eyes and sensors in the body. Consequently certain environments may cause them to feel dizzy. Tall buildings or high shelving in supermarkets and DIY stores, bad or flickering lighting, patterned and uneven walls and floors, escalators, spiral or open staircases and background noise can all create challenges for people with vestibular conditions. At the Ménière's Society we speak to people on a daily basis who find their daily life can be affected by these environments. Something as simple as going to the supermarket for the weekly shop can be a challenge as one of our members explains:

> I can cope with a small shop but those with rows of long aisles…are a nightmare. There is a visual "ripple" effect from the rows of cans and jars which make me feel as if I am on a boat in a very rough sea and I start to feel nauseous.

Many people learn to manage their symptoms over time. Talking things through with others and acknowledging the affects as real rather than 'in their head' can help them to cope and learn to live with the symptoms. For some, however, the challenge of managing these symptoms prevents them from leaving the home and in the worst cases people may even stop going out to avoid putting themselves in these situations. The Ménière's Society is the only registered charity in the UK dedicated solely to providing support and information for people with balance problems caused by vestibular disorders. We support people at all stages of their condition; from newly diagnosed to those in the later stages and those whose symptoms have returned after a period of remission.

Knowing they are not alone and others share their concerns can be an enormous help to them in the management of their symptoms.

As Director of the Ménière's Society, Natasha Harrington-Benton is responsible for the day-to-day running of the organisation. Her role involves a wide range of activities including fundraising, strategy, publicity, attending events and liaising with health professionals, researchers and related organisations. In addition, she remains a hands-on member of the office team – speaking to people affected by vestibular problems and responding to enquiries on the telephone information line. Natasha has worked for the Ménière's Society for the last decade and has over 20 years of experience of working in the voluntary and not-for-profit sector.

www.menieres.org.uk
@MenieresSociety

Spiral Staircase by Wilkinson Eyre Architects, Wellcome Collection © Edmund Sumner

OKE HAUSER & MAX SCHWITALLA

Studio Schwitalla

CORECITY – UNBALANCED RATIOS

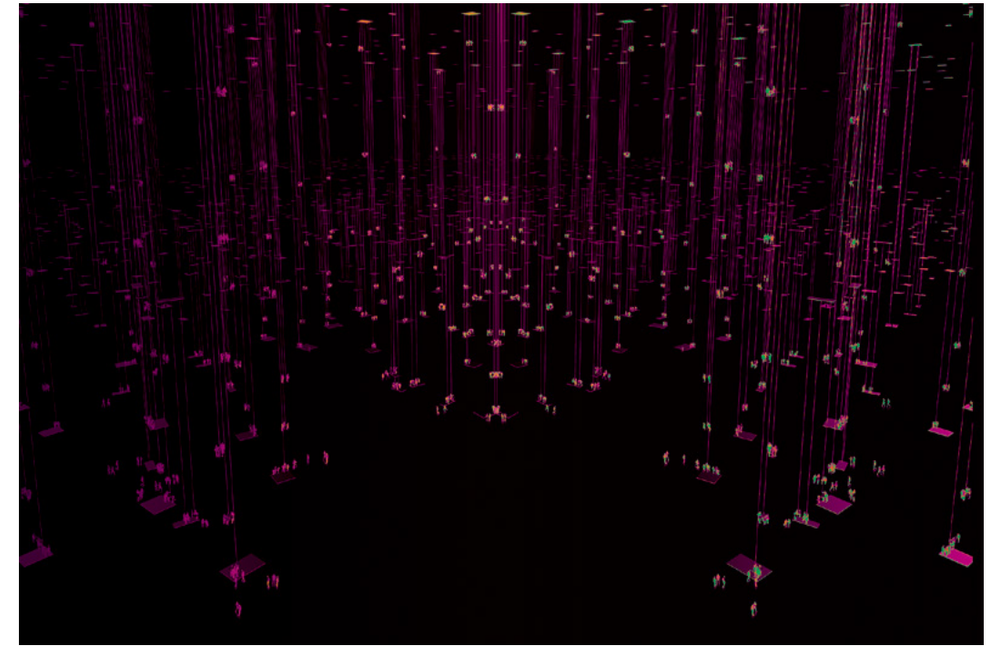
The spatial consequence of global urbanization in the twenty-first century is the expansion of the city into the vertical dimension. This vertical urbanization is driven by the high-rise typology elaborated in the nineteenth and twentieth centuries. It still depends fundamentally on the building core, the physical synthesis of three mutually dependent potentialities: vertical circulation, service/structural capabilities, and the stacking of privatized space. The repetitive insular stacking of privatized space ultimately dominates the stagnant public ground. The result is a quantitative and qualitative unbalanced ratio of the two categories of urban spaces. An urban experience dominated by isolated architectural objects rather than a continuous topological space is the inevitable consequence. Let us take a critical snapshot illustrating the impact of urban verticalization on life within our cities and question whether this produces humane settlements.

The urban qualities defined by the United Nations twenty years ago in the Habitat Agenda (the document agreed at the Habitat II Conference in Istanbul, 1996) were inspired by two principles of equal global importance: adequate shelter for all and sustainable development. Furthermore, the Istanbul Declaration on Human Settlements announced 'our cities must be places where human beings lead fulfilling lives in dignity, good health, safety, happiness and hope'.

How does global urban verticalization fulfill these ideals? As we enter the era of the three-dimensional network society, with its need for programmatic diversity and spatial continuity, we need to find an alternative topological urban answer. What happens to the urban morphology if we invert the given ratios of privatized and public space? Let us show you this experiment...

Oke Hauser (Dipl. Ing.) finished his architectural studies at the University of Stuttgart, Germany, with first class honors and won the prestigious Bruno Taut Award for his thesis. After working at Rem Koolhaas' office OMA in New York and Herzog & De Meuron in Basel, he joined Studio Schwitalla, Berlin as a collaborative partner. He is currently working as an editor for the upcoming publication *CoreCity* with Schindler AG, Luzern.

Max Schwitalla (Dipl.Arch. ETH/Architekt) studied architecture at the University of Stuttgart and at the ETH, Zurich. He received his Master's Degree in Architecture from the ETH, Zurich in 2006. Prior to Studio Schwitalla, he co-founded HENN StudioB, Berlin and worked for Rem Koolhaas/OMA, Rotterdam/New York and Graft, Berlin/Los Angeles. He has been a regular studio and seminar instructor and guest critic at the TU Berlin, ETH Zurich, TU Dresden and Aedes Network Campus Berlin. He is currently working as an editor for the upcoming publication *CoreCity* with Schindler AG, Luzern.



CATHERINE JAMES

Unviersity of the Arts, London

VERTIGO AS REDEMPTION

> We wander between the towering and the bottomless. We are lost between the abyss within us and the boundless horizons outside us. Any film wraps us in uncertainty.
>
> **Robert Smithson**
> 'A Cinematic Atopia', (1971)

Vertigo (by way of the Latin *vertere*, 'to turn') is a condition that mixes the experience of lightness and spinning with the sensation of falling. Vertigo, described as a sensation or hallucination of motion, might be regarded as analogous to the experience of watching film with its mechanics of rotation and its sublimation of the real ground. Film's rotation of images is mirrored in the cinematic experience, wherein life turns before our eyes or we are turned in space. It is perhaps not surprising that film directors often used turbulent motion or spinning as a metaphor for film itself (Dziga Vertov even coined his name from the term 'spinning top'). François Truffaut's 'rotor' ride scene in *The 400 Blows* (1959), Alfred Hitchcock's spinning or spiral motif in Vertigo (1958) and Stanley Donen's tumbling hotel room used for Fred Astaire's 360° dance in *Royal Wedding* (1951) are literal transcriptions of movement bound up with the cinematic process itself.

Vertigo is also a metaphor and a real affect of the modern city. Any anxieties and fascinations produced by sky-high architecture require rehearsals in the cultural imagination. In turn, cinema offers temporary relief from the dread of ground, earth and collapse in all its psycho-social intensity. Many forms of cultural symbolism in film and architecture are sustained by making magic out of height, fear and movement, packaging heady visions for the urban dweller and providing some fragile sense of integration within the cityscape. If cinema, architecture, engineering or even asphalt have produced a real-imaginary sense of the ground falling away, then how has this been reprocessed through feelings or sensibilities governed by the pathologies and pleasures of vertigo? Moreover, how have artists such as Robert Smithson shifted ideas of vertigo by undoing or dissolving form and image in the entropic, dizzying vortex of *Spiral Jetty* (1972)?

Catherine James currently lectures at University of the Arts, London. She completed her PhD at the London Consortium in 2004, with a thesis that explored cultural fantasies related to gravity's imperative in modern architecture, art, design, film and performance. As a Lecturer in Modern & Contemporary Art at Christie's Education from 2008, her research focused on how the force of gravity can be viewed as a formative element in art and performance since the 1960s. Her article, 'Vertigo: Redeeming the Fall' appeared in *Performance Research Journal* in October 2013. Her book *Gravity & Fantasy: Invisible Forces in Contemporary Art* is due to be published by Peter Lang in 2016.

Fred Astaire in Royal Wedding (Stanley Donen,1951)

JOSEPHINE KANE

University of Westminster

A WHIRL OF WONDERS: URBAN PLEASURESCAPES IN THE TWENTIETH CENTURY

London is in the throws of a dizzying pleasure revival. Its major landmarks and public spaces are being transformed by a growing appetite for new and thrilling ways to consume the urban environment. From London Eye, a 135-metre revolving observation wheel on the Southbank, to the looping red tower of Anish Kapoor's ArcelorMittal Orbit in Stratford, the lines between architecture, sculpture and thrill ride are increasingly blurred. The proliferation of urban novelties in contemporary London and other cities reveals a collective desire for a more embodied experience of the modern city, for engineered multisensory spectacles which might reconnect us emotionally to a landscape often characterized as anonymous or dehumanized. But Londoners at the turn of the twentieth century were no less hungry for exhilarating sensations. Rather than delight in playful interventions in the everyday urban environment, however, they flocked to new kinds of purpose-built pleasurescapes: exhibition grounds, rooftop winter gardens, observation towers and amusement parks packed with the latest vertigo-inducing riding devices.

This presentation explores the appeal of kinesthetic pleasures – of giant thrill machines, fast flowing crowds, towering iron and glass structures and spectacular landscapes viewed from above – which transcended age, gender, and class boundaries, attracting people from all walks of life in vast numbers.

The popularity of these experiences suggests that the commodification of vertigo has played a key role in defining urban pleasure in the twentieth century and highlights a theme which has been largely neglected in cultural and architectural histories of the modern city.

Josephine Kane is British Academy Post Doctoral Fellow in the Department of Architecture at the University of Westminster, London. Trained as a design historian (Royal College of Art / V&A), her special interest is the relationship between the experience of pleasure, modernity and the architectural landscape in nineteenth and twentieth-century Britain. She completed AHRC-funded doctoral studies at The Bartlett (UCL) in 2007 and was shortlisted for a RIBA President's Award for Outstanding Thesis in 2008. Her recently published book, *The Architecture of Pleasure* (Ashgate, 2013) presents early amusement parks, and the mechanical thrill rides they contained, as a key component in the experience of urban modernity. Josephine is a collaborator on the *Vertigo and the City* project, and a founding editor of *Architectural Histories: The Open Access Journal of the EAHN* (European Architectural History Network). Outside academia, Josephine has worked as a Live Interpreter for Historic Royal Palaces, and taught at heritage sites and schools across the UK.

@JosieKane

Gigantic Wheel, Earl's Court, London 1908

RICHARD KOECK

University of Liverpool

VERTIGO AND THE CULTURE OF CITIES: AN EXPLORATION OF VISUAL AND SPATIAL TACTICS

Symptoms of vertigo – and its associated forms such as motion sickness – are often caused by changing the position of the head in relation to gravity, making the body assume that it is moving when it is not, and can commonly cause a sensation of imbalance, spinning and even nausea. In simply medical terms, it can be explained as an irritation of our senses, caused by a conflict of information transmitted from our eyes and inner ear to the brain. Some of us will have experienced such symptoms when, for example, travelling in elevators or trains, or during intense computer gaming; activities which tend to change or even eliminate our perception of the horizon in relation to our own position in a space.

In the context of existentialist philosophy in Nausea (1938), Jean-Paul Sartre alludes to a visual sensory experience between the 'perceived' and 'imagined' which owes its 'conceptual and stylistic debts to the visual arts' (Rolls & Rechniewski 2005, p. 62). Yet, when it comes to architecture and urban spaces, it is perhaps more difficult to argue that certain kinds of spatial or aesthetic constituents cause such forceful impressions or even symptoms.

Nevertheless, there are examples surrounding the visual culture of cities which could cause a degree of vertigo, albeit in perhaps more subtle ways. This presentation will explore examples from visual art, advertising and film – such as *Inception* (Christopher Nolan, 2010) – that make use of vertigo as visual and spatial tactics in their representation of urban landscapes. But might these depictions, despite potentially causing an imbalance, also make insightful contributions by encouraging us to see our surrounding environment with different senses and, as such, with a realigned horizon?

Richard Koeck is Professor and Chair in Architecture and the Visual Arts at the University of Liverpool. He is also Director of the Centre for Architecture and the Visual Arts (CAVA) which provides a place for researchers who are interested in crossing disciplinary boundaries in the pursuit of rigorous research on the creative and visual culture of architecture and cities. He is editor and author of numerous books on film and visual culture of cities, including *Cine|Scapes: Cinematic Spaces in Architecture and Cities* (Routledge, 2013) and *Cinematic Urban Geographies* (Penz & Koeck, Palgrave, forthcoming 2015).

www.cava-research.org

Inception (Warner Bros, 2010)

KATIE LLOYD THOMAS

Newcastle University

DENSITIES OF AIR AND THE VERTIGINOUS SPACES OF HIGH-WIRE WALKING

This talk compares two high-wire walks, each made between two towers that no longer exist, and each drawn by the simplest architectural device – a line that connects the two buildings and signifies the desire to walk between them. Famously, one – between the World Trade Centre towers – was the result of a self-organised 'coup' and years of planning by Philippe Petit and his band of accomplices, and the other *High Wire* at Red Road flats in Glasgow, an Artangel commission created by Catherine Yass and performed by Didier Pasquette. High Wire was realized in the manner of an architectural project, with distinct roles for 'designer', engineers, performer, the use of abstracted orthographic drawings and calculations, and full risk compliance. Petit's team pooled resources between themselves, de-greasing their own wire, modelling and erecting the rigging outside the law.

Writing in the catalogue for *High Wire*, Yass describes her artwork as 'a dream of walking in the air, out into nothing.' The space between the towers is understood as a void. For the feminist philosopher Luce Irigaray, in her close reading of Heidegger's work, to render air only as vacuum, void or space in contrast to the solid matter of the ground is to forget the materiality of air, the very element, she proposes, that enables Being and all of life, and is shared by all.

For Irigaray, materiality should not only be ascribed to what is solid, but also to that which separates and puts into relation. Recalling stepping out over the parapet in *To Reach the Clouds* (2003), Petit notices conversely that 'all of a sudden, the density of air is no longer the same.' For Petit, the space between the towers has density, it too is material, not 'nothing'. This talk will ask to what extent the vertiginous fear of the void is predicated on already understanding and producing it as such?

Katie Lloyd Thomas is a Lecturer in Architecture at Newcastle University, where she co-directs ARC, the Architecture Research Collaborative, and is an editor of the international journal arq. Her research is concerned with materiality in architecture and with feminist practice and theory. She is co-founder of the feminist collective taking place and edited *Material Matters* (Routledge, 2007). Her monograph *Preliminary Operations: Material Theory and the Architectural Specification* is in preparation.

@KTLloydT

Photo by Patrick Siebenaler

PHILIP OLDFIELD

University of Nottingham

VERTICAL URBANISATION: A TWENTY-FIRST CENTURY PHENOMENON

> Urban design involves provisions of public realm spaces such as plazas, boulevards and avenues that respect the city's unique cultural differences…It is [the] equivalent of these that we need to design into high rise.
>
> **Ken Yeang**
> *Reinventing the Skyscraper* (2002)

No sooner had we built the world's first skyscraper in the late nineteenth century, then the first visions of 'cities in the sky' emerge – visions of parks, streets, schools and public squares at height, well above the ground level, interconnected by dramatic skybridges linking towers together. While such ideas remained fantasy for the next century or so, today we find them becoming a reality in the midst of a skyscraper boom, fuelled by population growth, urbanisation and the desire for global icons. The skyscraper, however, remains a divisive typology with many believing that living and playing at height is undesirable, especially for families with children. This is hardly surprising given that the alternative, low-rise suburban living, can offer the street, the protective front garden and the generously-sized back garden, whereas all high rise can seemingly offer is the corridor and lift lobby, often without access to natural light and view. To overcome these challenges, architects are turning back to visions of cities in the sky, looking to incorporate social spaces – parks, gardens, streets – at height above the city. Nowhere is this more apparent than in Singapore, where an astonishing 85% of the population live in high-rise social housing, resulting in buildings such as the Pinnacle@ Duxton, seven towers linked by skybridges at the 26th and 50th floors.

The development includes a host of social spaces such as an outdoor gym for the elderly, children's play area, mini parks and seating areas and, most radically, an 800-metre running track linking together the seven towers. Beyond this, our lives (and deaths) are becoming increasingly vertical – with vertical universities, schools, farms and even vertical cemeteries becoming a reality.

Despite the architectural bravado of such proposals, do they actually work? Do people actively seek out social interactions in skygardens high above the ground, and how do such spaces impact our experience of the city? This presentation explores these ideas, and suggests that the rules governing current skygardens (e.g. no ball games), and the lack of specific functions can limit their success in place-making.

Philip Oldfield is an Assistant Professor at the Department of Architecture and Built Environment, University of Nottingham, where he is Director of the Masters Course in Sustainable Tall Buildings – the world's only course and qualification dedicated to high-rise architectural design. He has also taught tall building studio and lecture modules at universities in Chicago, Venice and Singapore.

Philip's research focusses on tall building environmental design and social sustainability, themes which he has written about in both peer review journals and commercial publications, including the *Architects' Journal* (UK), *The Guardian* (UK), *STRUCTURE* Magazine (USA), and *ВЫСОТНЫЕ* (Russia). He is an active member of the Council on Tall Buildings and Urban Habitat (CTBUH), is Co-Chair of the CTBUH Research, Academic and Postgraduate Working Group and sits on their Expert Peer Review Committee.

High-rise residential towers linked by skygardens and streets in the sky. The Pinnacle@Duxton, Singapore © Philip Oldfield @SustainableTall

HOLGER SCHNÄDELBACH

University of Nottingham

PHYSIOLOGICAL AND EMOTIONAL RESPONSES TO ADAPTIVE ARCHITECTURE

Buildings are becoming adaptive to us and their environments. Research into the emerging field of Adaptive Architecture is concerned with the technical, design and social dimensions of this field, where architects, engineers, computer scientists, artists and social scientists collaborate to explore the resulting spatial condition. In recent years, research in this area at the Mixed Reality Lab at the University of Nottingham has explored people's psychological and emotional responses to new types of spatial environment. ExoBuilding, one particular spatial prototype, follows the breathing, heart rate and skin conductance of its single inhabitant through synchronised motion, sounds and visualisation. When a person inside ExoBuilding breathes in, the prototype moves up around them and when they breathe out, the prototypes moves back down. The resulting experience is multi-sensory, immersive and visceral.

Studies of ExoBuilding have shown how it triggers behavioural changes in people who occupy it. Without framing or any instructions, this biofeedback environment prompted people to breathe more slowly and more deeply, resulting in a greater coherence between heart rates and respiration rates. A follow-up comparison of experiencing ExoBuilding immersively and experiencing it from the outside, demonstrated how immersively experiencing ExoBuilding afforded a very much embodied relationship to the environment. ExoBuilding allowed people to stay with their breathing without consciously concentrating on it. For some people, the experience brought unexpected clarity in thinking, a reduction in their worries, deep relaxation and a higher perspective from which to deal with life.

As adaptivity in our environment continues to increase through real-world deployments of Ubiquitous Computing and the Internet of Things, we need to understand the physiological and psychological effects of Adaptive Architecture. Depending on context, which emotional responses are desirable and which are detrimental? To what extent can these be shaped by design interventions? What knowledge is required to support all stakeholders in the generation of built environments to create such responses?

Holger Schnädelbach is a Senior Research Fellow at the Mixed Reality Lab, School of Computer Science, University of Nottingham. Dr Schnädelbach is an architect with more than 15 years experience in HCI research focusing on the interface of information technology and the built environment. Recently, he has focused on the nature of the embodied relationship between a building's inhabitants and their adaptive environment. He has held a Leverhulme Early Career Fellowship (2007-2009) and was Principal Investigator on the *EPSRC Creativity Greenhouse* and *Screens in the Wild* projects.

ExoBuilding, by Holger Schnädelbach, 2009

RICARDA VIDAL

King's College London

ACTION-CAM CYCLING IN THE CITY

Recently the London Cycling Campaign issued a petition to London mayors to improve cycling facilities on the capital's streets. The petition also requested that cycling be considered a normal mode of transport like motoring, walking or taking the bus. Within the context of other European cities like Copenhagen or Berlin, such a demand sounds all but absurd. In London, however, cycling has always been regarded as somewhat controversial, not least because of its association with particular social groups, such as the working classes in the 1950s and 60s, or the hipsters of the early twenty-first century. Road planning in London prioritises motor traffic over cyclists and where traffic-calming features are considered, pedestrians are given priority. As a result, cycle lanes are often either non-existent or added as a narrow – and in some cases dangerous – afterthought. While this environment has caused numerous complaints, it has also been embraced by a particular breed of cyclist which has adopted these 'road worlds' as a large adventure playground. Weaving in and out of traffic at top speed, often on a fixed-gear bike with an action camera mounted on helmet, frame or handlebars, these cyclists enjoy the fun of the fast lane, the 'DIY cycle-lane' so to speak.

With its fisheye lens mounted on a part of the bike which affords a view of the road, wheels and/or handlebars, the action cam produces a vertiginous impression of speed even if one is not going very fast. This is increased by a fast-paced rock music soundtrack and edited highlights which focus on the near misses with cars, lorries and pedestrians.

While the ride itself can be exciting enough, the exhilaration is heightened by the presence of the action cam and the aim of getting good footage. In love with speed and confident of their own skills, the cyclist flirts with death. While the camera provokes more risky behaviour it also provides an additional layer of confidence – the camera is yet another thing under the cyclist's control – as well as justification. After all, the aim of the ride is to make a documentary, to create something to share. Focusing on London, this presentation will explore the particular conditions of 'action-cam cycling' in the city, before analysing the image of the city created in these videos and looking at the attraction of vertigo.

Ricarda Vidal is a lecturer, curator and translator, teaching at King's College London. She has published on urban space, cinematic architecture, the legacy of Modernism and Romanticism, speed, the car and driving as cultural phenomena as well as society's fascination with death and murder. Recent books include *Death and Desire in Car Crash Culture: A Century of Romantic Futurisms* (Peter Lang, 2013), *The Power of Death: Contemporary Reflections on Death in Western Society*, co-edited with Maria-José *Blanco* (Berghahn Books, 2014) and *Alternative Worlds: Blue-Sky Thinking since 1900*, co-edited with Ingo Cornils (Peter Lang, 2014). She also runs the research and exhibitions project *Translation Games*.

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BRENDAN WALKER

University of Nottingham

DIZZY HEIGHTS: THE EXHILARATION AND ANXIETY OF THRILL

> Undaunted by dizzy heights and brisk winds that sway their "bos'n's chairs" far about busy streets or humming industries, steeple jacks ply their precarious callings dangling atop tower and chimney stack with apparent ease.'
>
> 'Hazards of Dizzy by Aerial'
> in *Popular Mechanics* 41, no. 6
> (June 1924)

> The very same medium which had helped to catapult Michael [Jackson]'s career to the dizzy heights of mega stardom the likes of which are unlikely ever again to be equaled - was now plotting his downfall.
>
> **Adrian Grant**
> *Michael Jackson: The Visual Documentary*
> (Omnibus, 2009)

Science generally defines thrill as exhilaration in response to novel stimuli or experience. The attainment of novelty is rewarded with a heady biochemical cocktail of dopamine and adrenalin, which courses through our body, organs, and brain, creating waves of pleasure and arousal. Experience-seekers often pursue novelty through the superlative; for example, greater speed or greater brightness. But the most recognisable is the pursuit of greater height.

As children we begin to learn that with an increase in height comes an increase in potential energy, which provides power to have effect in and on the world: the higher my hill, the further I will roll; the higher my vantage point, the greater my strategic advantage. Height can be thrilling in itself purely because of the potential power it offers.

Height, however, isn't only used to describe vertical distance from some perceived reference point, like sea level. Great heights can be achieved in social standing, positions of authority, or even attaining perfection.

But with the novelty and exhilaration of reaching new heights can come a sudden awareness that we are teetering on the edge. Our perceived risk of losing control and falling increases. We fear that any potential energy gained might dissipate in a chaotic and traumatic fashion. We may even fear falling beyond our original reference point, to spiral into a bottomless abyss… Worse still, if the body or mind can be fooled into believing it is losing control (typical of conditions such as vertigo) then these anxieties can be triggered at much lower altitudes. The dizziness associated with the thrill of attaining great height could therefore be seen as a psycho-physiological symptom, a cause of anxiety. It might also describe the pleasurable intoxicating side effects of exhilaration, or represent the turbulence created between exhilaration and anxiety themselves.

Brendan Walker is often described as 'the world's only Thrill Engineer'. He originally trained as a military aeronautical engineer, before researching and teaching in Interaction Design at the Royal College of Art. Brendan now runs Aerial – a design practice specialising in the creation of tailored emotional experience, with clients such as Durex, Nissan, and Merlin Entertainment. Brendan is Professor of Creative Industries at Middlesex University, Senior Research Fellow at the University of Nottingham, and a regular TV broadcaster – currently filming as a presenter for BBC Coast.

@ProfBWalker

Michael Jackson and son, Berlin, 2002 (Photo by Olaf Selchow/Getty Images)January 2015

CHRISTINE WALL

University of Westminster

‘AND THEY FREEZE…’

The steel worker on the girder
Learned not to look down, and does his work
And there are words we have learned
Not to look at,
Not to look for substance
Below them. But we are on the verge
Of vertigo […]
We look back
Three hundred years and see bare land.
And suffer vertigo.

Extracts from George Oppen,
‘*The Building of the Skyscraper*’, 1965.

Britain 1965: the Barbican development was rising from the ruins of the blitz; the first program of nuclear power stations were being built around Britain’s coasts; 16% of post-war public housing was over 20 storeys high; the construction industry workforce was 1.1 million strong; and that year 275 workers died on building sites. George Garnham, a scaffolder from the age of 14, remembers that time, and what happens when things go wrong high above the ground:

‘I remember when Kenny Beaumont done it… We was up about 50, 60 foot, and we were working away. When you’re fixing yourself, you only work off one board, you know, one nine-inch board, and he was working away and for some unknown reason, I looked, I said, “You ready, Ken?” and no answer. I thought, “Oh, Ken, what’s wrong?” and he had hold of the upright and, you know, I had to go along and speak to him and he said, “I can’t move, George.” He said, “I’ve had it.” He said, “I’ve got to get down! I’ve got to get down!’

Letting in the fear, the terrifying panic of giddiness on the edge of falling, was an unconscious phenomenon. In the 1960s there were no safety harnesses and the sudden inability to move created great risk to both victim and rescuer. But for the man who froze there were also huge consequences for family life and welfare, caused by a massive decrease in wages after leaving a well-paid skilled occupation and returning to the rank of unskilled labourer. In a sense, those who froze became aware of reality – its risks and the sheer dizzying whirlwind of modernity and change, signalled by the post-war high-rise building boom. Did the men who froze – clutching the cold steel tubes of the scaffold, high in the air – have a glimpse of what was being lost and the emptiness of the future? Oppen also anticipated, in his closing lines, the vertiginous pace of capitalism.

Christine Wall is Reader in the Faculty of the Built Environment and Co-Director of the Centre for Research into the Production of the Built Environment (ProBE), at the University of Westminster. She trained and worked as a carpenter for 12 years, studied architecture as a mature student, and completed her PhD, funded by the RIBA Ozolins Scholarship award, at the University of Cambridge in 2004. She has researched and published widely on the built environment since 1996 and recently led the Leverhulme Trust oral history project, *Constructing Post-War Britain: Building Workers’ Stories 1950-1970*. Her books include *An Architecture of Parts: Architects, Building Workers and Industrialised Building in Britain 1940-70* (Routledge, 2013); *Work and Identity: Historical and Cultural Contexts*, with John Kirk (Palgrave Macmillan, 2011); and *Women in Construction*, with Linda Clarke et al., (Reed, 2004).

www.westminster.ac.uk/probe/projects/constructing-post-war-britain

Crane erectors on the Barbican site (courtesy of John Steeden)

CATHERINE YASS

Independent Artist

FALLING AWAY

Can there be a pleasure in vertigo? A moment when the proximity of death makes life imminent? In my films I try to get as close to this edge as possible.

High Wire (2008) is literally on that edge where one step could be fatal, but each safe step is survival and freedom. The film is the dream of a high-wire artist to walk in the air. For him it represents freedom, but this freedom is conditional on the constraints of gravity and the dependence on the wire. He does not fulfil the dream; the wind forces him back. The high wire stretches between two towers on Red Road Housing estate in Glasgow, buildings which embody the Modernist dream of streets in the sky transcending poverty and poor housing conditions. Now regarded as a failure, the towers were recently demolished: falling to the ground, thwarting the ambitions of both walker and estate.

Descent (2002) opens up the split second between stability and falling to imagine time and space during the descent from top to bottom of a high rise. The film was made from an 800-foot crane, with the camera slowly lowered to the ground through thick fog. As the surroundings are gradually revealed, it becomes apparent that the viewer, or the image, or the camera are upside down. Sometimes it is clear that the camera is moving. Sometimes, as parallax builds up, it seems as though it is the buildings that move. The descent is disorientating, as in a fall where time slows down allowing in memories and reflections. The site seems alternately archaeological and futuristic, introducing a timescale outside the limitations of the image.

In *Lighthouse* (2011), the camera circles slowly down the structure of an abandoned lighthouse, revolving evenly around the clockwork order of the sun's reflections on the sides, down to the sea where the tidal pull of the waves sends it into an ellipse, and then underwater where all references to direction and orientation are lost. The film is taken first from a helicopter, circling the lighthouse from a distance and then closer in. The same circling movement is taken up from a boat till the camera is sent underwater and completely upturned with light coming up from the surface below.

Catherine Yass lives and works in London. She trained at the Slade School of Art, London, the Hochschüle der Künst in Berlin and Goldsmiths College, London. Her work features in major permanent collections worldwide, including Tate Britain, the Scottish National Gallery of Modern Art, and the Jewish Museum, New York. In 2002, she was shortlisted for the Turner Prize.

Important solo exhibitions include *Lighthouse* at Alison Jacques Gallery, London (2012); a mid-career retrospective at De La Warr Pavilion, Bexhill-on-Sea (2011); *Flight*, Phillips Collections, Washington DC; *The China Series*, Stedelijk-museum's-Hertogenbosch, the Netherlands (2009); and *Descent*, St Louis Art Museum, St Louis MO (2009). Catherine recently participated in the *Montreal Photo Biennale* (2013).

Major commissions include *Decommissioned* for the Jewish Community Centre, London (2013); *Rambert*, Rambert Dance Company, London (2013); and *Split Sides*, Merce Cunningham Trust, Brooklyn Academy of Music, New York (2003).

Production still, *High Wire* (2008)

VERTIGO IN THE CITY
CONVERSATIONS BETWEEN THE SCIENCES, ARTS & HUMANITIES

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