Manuscript Details

Manuscript number	EMOSPA_2017_118
Title	Editors' Introduction: Towards a Vertigology of Contemporary Cities
Article type	Editorial

Abstract

In this introduction, the guest editors set out the contextual and theoretical rationale for the Special Issue: Vertigo in the City. It begins with some basic definitions and uses of the term Vertigo, before tracing the relationship between vertigo and the environmental, emotional and representational landscape of the high-rise, high-density modern city. Drawn from a multidisciplinary research project which culminated in 2015, the six papers selected for the SI are then briefly described, highlighting contributions and intersections between the different papers. The introduction ends with a call for the development of an interdisciplinary methodology for studying vertigo, with a view to opening up truly inter-disciplinary research in the future.

Keywords	vertigo; vertigology; modernity; urban; interdisciplinary

Corresponding Author	Josie Kane
Corresponding Author's Institution	Royal College of Art
Order of Authors	Josie Kane, Davide Deriu

Submission Files Included in this PDF

File Name [File Type]

ESS Highlights Aug17.docx [Highlights]

ESS Titlepage Aug17.docx [Title Page (with Author Details)]

ESS_intro_Aug17.docx [Manuscript (without Author Details)]

To view all the submission files, including those not included in the PDF, click on the manuscript title on your EVISE Homepage, then click 'Download zip file'.

Highlights:

- Introduces the contextual and theoretical rationale for the Special Issue: Vertigo in the City.
- Provides basic definitions and uses of the term Vertigo
- Traces the relationship between vertigo and the environmental, emotional and representational landscape of the high-rise, high-density modern city.
- Provides overview of six papers selected for the SI, highlighting contributions and intersections between the different papers.
- Calls for the development of an interdisciplinary methodology for studying vertigo, with a view to opening up truly inter-disciplinary ‘vertigology’ research in the future.

Emotion, Space and Society

Special Issue:
Vertigo in the City

Title:

Guest Editors’ Introduction: Towards a Vertigology of Contemporary Cities

Authors:

Dr Davide Deriu
Dr Josephine Kane

Emotion, Space and Society

Special Issue:
Vertigo in the City

Abstract

In this introduction, the guest editors set out the contextual and theoretical rationale for the Special Issue: Vertigo in the City. It begins with some basic definitions and uses of the term Vertigo, before tracing the relationship between vertigo and the environmental, emotional and representational landscape of the high-rise, high-density modern city. Drawn from a multidisciplinary research project which culminated in 2015, the six papers selected for the SI are then briefly described, highlighting contributions and intersections between the different papers. The introduction ends with a call for the development of an interdisciplinary methodology for studying vertigo, with a view to opening up truly inter-disciplinary research in the future.

Introduction: Towards a vertigology of contemporary cities

Vertigo is a complex and wide-ranging phenomenon, and a journal issue cannot claim to cover its full range of implications. Instead, this themed collection aims to chart some of the latest research that has been conducted in different disciplinary fields which, in their own ways, engage with the emotional states associated with vertigo and examine their spatial and social manifestations. Despite its pervasiveness in everyday language and in varied scientific discourses, vertigo is a notoriously ambiguous concept. In the biomedical sciences, the term denotes a sensation of spinning that is often treated as a symptom of balance system disorders. In common parlance, however, it is used far more broadly to describe feelings of giddiness, disorientation and loss of balance, both literal and metaphorical (Yardley, 1994). Consequently, vertigo is associated with a range of human emotions – oscillating between anxiety and pleasure – which inhabit both our embodied and our imagined worlds (Quinodoz, 1997).

This emotional spectrum is particularly manifest in modern cities, where people are exposed to intense sensory stimuli that affect their mental life in profound ways (Simmel, 2002). This is nothing new per se. Indeed, the word vertigo has long been used to describe the maelstrom of the modern metropolis. Between the late-nineteenth and the early-twentieth centuries, the dizzy pace of life, work and construction in industrial cities became synonymous with the vortex of modernization. The emotional landscape associated with tall buildings, in particular, has a socio-cultural history that is rooted in the experience of the rising modern city in the late 1800s. Vertigo has been related to the experiential, but also existential, anxiety caused by the vertical growth of the metropolis, with its expansive spaces and frenetic pace. As Vidler (2000) has pointed out, the rise of the modern metropolis brought about a series of 'spatial diseases' that were diagnosed as distinctly urban conditions – such as agoraphobia, claustrophobia, and acrophobia. Whilst the mental disturbances precipitated by various social and environmental conditions have been investigated within a historical perspective (Callard, 2006; Smart, 2000), comparatively less attention has been paid to the specific aversion to high places in the modern city. Yet acrophobia, commonly described as 'fear of falling', is a widespread phenomenon whose impact on the wellbeing of urban dwellers remains largely unrecognised by architects and planners.

Just as the notion of vertigo resists simple definitions, so too does its qualification as undesirable, something to be avoided. It is fascinating to observe how, as the urban landscape and pace of life became notably vertiginous at the end of the nineteenth century, new forms of commercial recreation emerged which promoted the association of vertigo with pleasure. The amusement park phenomenon, initiated at Coney Island, New York, at the turn of the twentieth century, spread rapidly across the US to Europe and beyond. By 1914, no major western city was without its own ‘Luna Park’ or ‘White City’, where city-dwellers could pay to experience a heightened version of the urban spectacle: dizzying heights, speeding rides, repetitive mechanical noise, multi-coloured electric lights, and transient crowds (Kane 2013).

By the early twentieth century, rollercoasters and other giant thrill rides offered unparalleled forms of motion: sharp turns and inclines, even 360-degree revolution. Like high-rise buildings, they seemed to defy the forces of gravity. Moreover, the ups and downs, sudden twists, and the exhilaration of a rollercoaster ride soon became a familiar metaphor for the disjunctive nature of life in the modern city. Film-makers such as Walter Ruttmann seized on the rollercoaster as a symbol of modernity itself. *Berlin, Symphony of a Great City* (1927) includes, for example, first-person shots from a rollercoaster to signal the thrill of ascent and the fear of falling which characterised emotional responses to the metropolis.

Thrill seeking was (and is) understood as a defining characteristic of the modern psyche. As Simmel famously observed in 1907, the indifference and isolation induced by living in big cities caused an inner restlessness which people sought to satisfy through intensified experience: ‘the lack of something definite at the centre of the soul impels us to search for momentary satisfaction in ever-new stimulations, sensations and external activities’ (Simmel 1978, p. 257). The first amusement parks provided an escape from the anonymity of urban life. In doing so, they catered for a shared desire for sensuous and immediate engagement with life, a desire that continues to drive urban pleasure-seeking trends today. Even now, as engineered thrills are taken for granted and as the ‘shock’ of the modern city has been internalized, urban crowds of all ages and backgrounds continue to be drawn to large-scale attractions combining height, speed and disorientation in new and thrilling ways (Kane, 2015). The enduring popularity of the Ferris Wheel (Borden, 2014) is just one example of how the pursuit of dizziness, and of environments in which a purely emotional intensity might still be found, are a defining element of city life (Kane, 2013).

Vertigo is, then, inextricably bound up with the rising skylines of modern cities – New York *in primis*. In the vertical metropolis, the fear (and thrill) of falling from great heights coexists with the possibility of its physical occurrence, becoming a source of inspiration in the visual arts and other representational forms:

> One effect of the new skyscraper landscape was that falling became psycho-social reality, and vertigo, that dizzy preparation for the fall, was rehearsed in the wider cultural imagination, moving between potent metaphor and lived condition. […] Vertigo, as condition, sign and image, was a valve through which to mediate a darker malaise at the heart of modernity. (James, 2013:91)

Today, as the rise of super-highrise cities finds new impetus as a globalised trend, vertigo may provide a useful category to address the combined effects of mobility, densification, and verticality that increasingly characterise the growth of cities around the world. A key aim of this Special Issue is therefore to investigate how research that tackles vertigo from different disciplinary angles may help us to interpret the changing perception, emotion and experience of space in the contemporary city. Whether we love it or loathe it, vertigo has become an integral part of contemporary urban life.

However, vertigo is not confined to the vertical. A wide range of environmental factors which define the modern city – including movement, speed and visual stimuli – can produce dizzying sensations. As a result, even familiar urban spaces, such as supermarket aisles and crowded or traffic-filled streets, can pose a serious challenge, especially for people affected by vestibular conditions. Neuroscience research has begun to shed light on the social cost of vertigo and its impact on the quality of life and work of different urban populations (see, for instance: Bronstein et al, 2010). And so, while the health and wellbeing of some urbanites are impaired by high-rise and high-density city life on one hand, we also witness the almost obsessive pursuit of vertigo-inducing urban experiences – such as 'skywalks', slides, and infinity pools – and thrill-seeking spatial practices inspired by extreme sports on the other. This paradox makes a cross-disciplinary appraisal of vertigo in the city, and of its socio-spatial manifestations, all the more relevant today.

Whilst this Special Issue aims to foster a dialogue between wide-ranging disciplines, it is worth noting that it draws its original impetus from research in architecture and design. Therefore, within the limited scope of the collection, the focus is primarily on issues of height and verticality in relation to city spaces. Several papers deal with the experience of tall buildings situated in urban environments, thereby contributing to the current debate around vertical urbanism. The broad context for this discussion is provided by a body of literature that has variously scrutinised the increasing relevance of the vertical dimension in the design and control of built environments, as well as their implications for the ways in which spaces are perceived and imagined. These range from early theorisations of the 'politics of verticality' (Weizman, 2002) to more recent arguments that foreground the vertical as a new paradigm of urban geography (Graham, 2016). Furthermore, the dizzying experience of vertical spaces has been linked with the sense of groundlessness that pervades the present moment, in which the metaphors of *free falling* as existential condition is leading to new forms of visuality and representation (Steyerl, 2011). At the same time, the emotional response to the experience of heights, which had previously received limited scholarly attention, has become the subject of research into the geography of phobias (Andrews, 2007), while the tension between *acrophobia* and *acrophilia* – the attraction to extreme heights – has also been studied with regard to film and cultural representations (LeBlanc, 2011).

Against this background, the emotional and affective qualities of spatial experiences in relation to vertiginous sensations are explored. Bodily encounters with vertical spaces provoke a broad range of emotional responses – from mental and physical discomfort to excitement and pleasure. And similar range of reactions can be triggered by less obvious environmental conditions in the city – streets lined by tall buildings, wide open squares or plazas, and even relatively modest heights can induce dizziness for some. In very different ways, the contributions collected here address aspects of human feeling in relation to vertigo: the feel *of* buildings, feelings *in* buildings, and feelings *about* buildings (Rose et al, 2010). By addressing some of these experiences, perceptions and feelings, we hope to raise questions about the agency of particular buildings and spatial environments in shaping the emotional landscapes of contemporary cities.

In so doing, the Special Issue draws on the growing body of literature that, in recent years, has foregrounded the role of emotions and affects in the social production of space. Phenomenology has provided a popular basis for a holistic appreciation of buildings that foregrounds sensory experiences and emotions (Holl, Pallasmaa, and Pérez Gómez, 2006), as well as inspiring geographies of architecture concerned with embodied practices and with the relational aspects of inhabitation (Kraftl & Adey, 2008). In addition, feminist scholars have proposed alternative accounts of architecture – in conjunction with film and visual arts – that combine cultural history with the emotional cartographies inscribed in personal experiences and autobiographies (Bruno, 2002). The sensory turn in the social sciences as instigated further debate around the role of senses in the experience of cities, as

demonstrated by several exhibitions and publications (Zardini, 2005; Diaconu, et al, 2011).[1] To this heterogenous body of work should be added the literature on experience-driven design, a field of research in its own right that explores the affective interactions with objects produced in disciplines ranging from animation to jewellery and industrial design (McDonough et al, 2004). None of these studies, however, has yet addressed the significance of vertigo for the embodied experience of urban space.

With this in mind, the 'Vertigo in the City' research project (2015), set out to explore the psycho-physiological conditions affecting increasing numbers of people living in cities around the world. How do the cultural and social meanings of vertigo relate to its scientific definition? Can a multidimensional approach to vertigo offer new perspectives on current and future urban paradigms? And what reciprocal insights might be gained from a dialogue between different practices and disciplines concerned with this phenomenon?

Hosted by the University of Westminster and supported by a Wellcome Trust grant in the medical humanities, the project drew on perspectives from the sciences, arts and humanities to explore the multi-dimensional phenomenon of vertigo in relation to the urban environment.[2] The exploratory phase of the project culminated in a two-day symposium (May 2015) which brought together over twenty scholars and practitioners from different fields to discuss different ways in which vertigo-related dizziness and disorientation are diagnosed, analysed, evoked, induced, and represented.[3] The six contributions selected for this Issue represent a cross-section of these 'conversations between the sciences, arts and humanities', revised and developed.

Collectively, the papers here present multiple intersections between vertigo, people's lived experiences and the built environments that frame them. The authors address broader social identities and historical and cultural forms, as well as more personal and subjective aspects. They offer a range of disciplinary perspectives – from architecture, urban planning, literature, visual and performance arts, and clinical science – that triangulate spatial and social issues with the emotions that are associated with states of vertigo in the city. This diversity is reflected in the form and style of research presented here: scholarly papers and essays are complemented by shorter experimental and practice-based essays.

Beyts' opening paper contributes a highly specialised clinical perspective to the Special Issue. By providing an overview of a number of complex medical conditions which cause vertigo-like symptoms, Beyts' practice-based insights and patient experiences show how the modern city triggers vertigo in multiple and sometimes unexpected ways, not just through the experience of super-tall buildings. A range of factors – including motion and visual stimuli – have the potential to cause vertiginous sensations. As a result, even familiar urban spaces can pose a serious challenge for people with vestibular conditions.

An introductory comment traces important links between today's clinical treatment of vertigo, the history of neuro-psychiatry and the study of emotional responses to the city. It is fascinating to note that the diagnosis and treatments Beyts describes, which draw heavily on strategies for dealing with anxiety-related disorders, follow a long-established medical tradition of investigating the impact of sensory and spatial factors on the mental and

---

[1] Exhibitions include: 'Sense of the City' at CCA, Montréal, 2005-06; 'Architecture and its Affects', Venice Biennale 2012; and 'Sensing Spaces: Emotional buildings' at London's Royal Academy, 2014.

[2] Vertigo in the City, 2015. Led by Dr Davide Deriu at the University of Westminster's Faculty of Architecture and the Built Environment, in collaboration with Dr Josephine Kane (Royal College of Art), Professor John Golding (University of Westminster) and Professor Brendan Walker (University of Nottingham).

[3] The abstracts of the symposium were published in an illustrated booklet (ISBN: 978-0-903109-48-2) which is available at www.vertigointhecity.com

physiological health of the individual. For those coping with the disabling effects of vertigo on a daily basis, the pursuit of dizzinness for pleasure must seem unfathomable. And yet, as the history of thrill-seeking and the recent the proliferation of vertigo-inducing novelties in major cities around the world reveals, the collective desire for increasingly visceral urban experience is long-established.

Like Beyts, Claid addresses the more distressing emotional responses to vertigo – fear, revulsion, stress – but from a rather different perspective. A trained psychotherapist, dancer and somatic movement practitioner, Claid draws on her experiential research on falling and loss of balance in the perfoming arts to speculate about emotional responses to a deliberately vertigo-inducing experience: the recently-installed glass walkways at London's Tower Bridge. The fact that her paper was born out of a live television stunt organised by the Tower Bridge public relations team, rather than the less entertaining challenges for patients treated by Beyts and her colleagues, is characteristic of the way in which vertigo is sensationalised in the media (an observation developed in Deriu's paper, see below).

Tower Bridge itself—one of London's most iconic structures – was completed in 1894 and exemplifies the kind of high-rise modern engineering which began redefining the city at the end of the nineteenth century. As such it presents a particularly relevant context for Claid's reflections on acrophobia and, by contrast, the thrill-seeking behaviours she observes. Historical parallels might be also drawn between Claid's exploration of the nineteenth-century notion of (homeopathic) 'potency' and the desensitisation techniques employed by Beyts to treat visual vertigo patients. Both authors understand vertigo as a state of hyper-arousal which might be treated through carefully controlled exposure. Claid offers fascinating speculations about the role of exposure – the 'window of tolerance' – as a way to facilitate recovery or, what she refers to as, 'creative change', suggesting further interconnections with Anderwold et al's approach to dizziness as a mode of artistic practice.

The ambivalent emotions elicited by the experience of elevated glass floors is explored from an architectural perspective by Deriu in his paper, 'Skywalking in the City'. The paper examines the recent trend in the design of high-rise viewing platforms as spaces that challenge visitors to 'walk on air' in a seeming state of suspension over the city's abyss. With reference to Caillois's theory of vertigo as a self-induced form of voluptuous panic (*ilinx*), Deriu examines a series of cases that illustrate the ongoing proliferation of glass-bottomed platforms around the world. Examples include supertall buildings in Chicago and Shanghai, yet also lower-rise platforms such as the glass walkways of London's Tower Bridge, featured in the previous paper, which is here examined in terms of the visual interactions between the skywalkers and onlookers at street level. The term 'sixth façade' is advanced to describe those architectural features aimed at inducing a kinaesthetic experience of verticality – an emotionally charged state that combines the thrill of altitude with a heightened awareness of space allowed by transparency.

The paper engages with a range of theories that draw on economy and tourism studies, as well as architectural phenomenology, in order to unpack the way in which the sixth façade has emerged as a popular site of visceral experience. High-rise glass platforms are shown to be spatial manifestations of the experience economy. More broadly, they are regarded as symptoms of a psychosocial condition whereby emotions of thrill and anxiety associated with high places are normalized within safe and controlled environment. Within these 'tourist bubbles', the perception of the abyss is reduced to a themed spectacle. The marketing discourse shows how the challenge to walk on air is highly sensationalised in the media: a point that underlies Claid's paper, and which is here presented as evidence of a growing economy of vertigo. The paper suggests that this phenomenon has historical significance, in that it signals a shift from the design of observation decks as architectures of visions towards a new kind of 'architecture of vertigo'.

A specific case study into the global rise of vertical architectures forms the basis of Oldfield et al's **[insert co-authors' names]** paper. The authors interrogate the contested field of high-rise housing, and discuss how this design typology has a distinct bearing on the inhabitants' experience of urban space, with consequences for their social and psychological wellbeing. Whilst Claid's and Deriu's papers deal with spaces that are designed for momentary thrill experiences, this contribution tackles the issue of living in tall buildings – another a fast-growing trend worldwide. It does so through the close analysis of an innovative high-rise social housing complex situated in Singapore, a city that epitomises many features of today's vertical urbanism.

The focus is on the communal spaces known as 'skygardens', whose social and spatial characteristics are critically evaluated through a hybrid methodology. A fine-grained observation of this specific context draws out a series of reflections about how high-rise communal spaces are co-produced by various agencies, including various groups of residents and occupants as well as planners and designers. This study foregrounds the users' emotional experiences that emerge from personal narratives, which expose issues of psychological (dis-)comfort – including height vertigo – amidst broader questions of access, safety, and control that surround the skygardens. Crucial elements of communal housing life, such as social freedoms and social interaction, are shown to be inextricably related with the embodied experience of space at great heights.

The vertiginous aspects of tall buildings, and the ways in which they bear on the lives of those who inhabit or otherwise experience them, are also a recurring feature of literary representations. In her paper, Butt investigates the emotional implications of vertical cities as depicted in science-fiction (sf) literature through the analysis of two novels: JG Ballard's *High Rise* and Robert Silverberg's *The World Inside.* The paper reveals how vertigo as a human feeling is often suppressed in the dystopian environments in which these and other sf novels are set, whilst at times is surfaces to reveal the anguish of inhuman conditions that are encapsulated by high-rise architecture. Butt argues that sf literature is capable of enlightening our relationship with built environment in more than one way, owing to 'its ability to inspire radical imagination, and to provoke cognitive estrangement.' A critical analysis informed by theoretical considerations allows the author to expound the emotional experiences that are commonly felt and enacted by readers.

By straddling the real and fictional realms, the paper positively complements those focusing primarily on the direct, lived experience of tall buildings. The range of emotions elicited by sf literature depicting vertical cities is an active agent in the shaping of readers' subjective experiences: albeit fictional, these imaginary worlds can have a significant role on our critical reflections on architecture and urbanism, as they provoke emotional reactions predicated on a process of 'cognitive estrangement'. From an emotional point of view, fictional spaces we inhabit with our imagination are no less real than the physical one we traverse with our bodies. Indeed, the dizzying conditions portrayed in the selected sf novels which Butt examines may productively reveal the alienating nature of 'real' urban experience that increasingly characterise the social life of today's cities.

Finally, the issue concludes with a series of philosophical reflections on dizziness and its creative potential in art and creative practice. In their joint paper, Anderwald, Grond, and Feyertag investigate the concept of dizziness (*Taumel*, in German) as an epistemological issue, questioning the ontological state of uncertainty as a condition that may destabilise knowledge and thereby pave the way for new forms of creative practice. Dizziness here is considered as a metaphorical concept as well as an embodied sensation. Drawing on their work in the field of research-creation, the authors discuss how physical conditions that are related to sensory instability or disorientation (such as, for instance, overstimulation or deprivation of sensory experience) are connected with emotional states that may trigger a process of artistic creation.

At the heart of this study lies the idea that the very act of 'falling into dizziness' may provide the condition for a transformative process that, in particular circumstances, generate various kinds of creative production. The article presents a series of collaboration based on the use of experimental film, photography, and the 3D scanning and modelling of states of physical dizziness as a means of capturing the in-between moments that separate standing from falling – as the ultimate loss of balance. These various experiments are aimed at setting out strategies for navigating states of dizziness, and constitute the basis for critical reflection. Moving between philosophical concepts, physical sensations, and emotional experiences, the authors theorise a 'compossible space' in which dizziness can be experienced and, at the same time, reflected upon. The article might be regarded as a compossible piece of writing in itself, weaving a series of narrative, theoretical, empirical threads together into a new conception.

And it is in the spirit of compossibility that we present this diverse collection of responses to the theme of Vertigo in the City. They are not intended as a comprehensive overview, or an authoratiative commentary, designed to orientate the reader, but as a tentative first step in the development of an interdisciplinary approach to the study of urban vertigo. By including wide-ranging, and sometimes speculative, papers that focus on the design, experience, and representation of high-level spaces whilst also expanding the discussion to other spatial and conceptual realms, our aim is to begin formulating a *vertigology* of contemporary cities.

References

Andrews, Gavin J, 2007. Spaces of Dizziness and Dread: Navigating Acrophobia. *Geografiska Annaler. Series B, Human Geography* 89 (4), 307–317.

Borden, Iain, 2014. The Singapore Flyer: Experiencing Singaporean modernity through architecture, motion and Bergson. *The Journal of Architecture* 19 (6), 872–902.

Callard, Felicity, 2006. 'The sensation of infinite vastness'; or, the emergence of agoraphobia in the late 19th century. *Environment and Planning D: Society and Space* 24 (6), 873–889.

Borden, Iain, 2014. The Singapore Flyer: experiencing Singaporean modernity through architecture, motion and Bergson. *The Journal of Architecture*, 19 (6), 872–902.

Bronstein, A.M., Golding, J.F., Gresty, M.A., Mandalà, M., Nuti, D., Shetye, A., Silove, Y., 2010. The social impact of dizziness in London and Siena. *J Neurol* 257, 183–190.

Bruno, Giuliana, 2002. Atlas of Emotions: Journeys in Art, Architecture, and Film. Verso, New York.

Diaconu, Madalina, Heuberger, Eva, Mateus-Berr, Ruth, Vosicky, Lukas Marcel, (Eds.) 2011. Senses and the City: An Interdisciplinary Approach to Urban Sensescapes. Lit Verlag, Berlin.

Graham, Stephen, 2014. Super-tall and Ultra-deep: The Cultural Politics of the Elevator. *Theory, Culture & Society* 31 (7/8), 239–265.

Graham, Stephen, Hewitt, Lucy, 2012. Getting off the ground: On the politics of urban verticality. *Progress in Human Geography* 37 (1), 72–92.

Graham, Stephen, 2016. Vertical. Verso, London.

Holl, Steven, Pallasmaa, Junani, Pérez Gómez, Alberto, 2006. Questions of Perception: Phenomenology of Architecture. William Stout, San Francisco.

Kane, Josephine, 2013. The Architecture of Pleasure: British Amusement Parks 1900–1939. Ashgate, Farnham.

Kane, Josephine, 2015. Dream City. LA+ Interdisciplinary Journal of Landscape Architecture 2 (Fall 2015), 38-45.

Kraftl, Peter, and Adey, Peter, 2008. Architecture / Affect / Inhabitation: Geographies of Being-In Buildings. *Annals of the Association of American Geographers* 98(1), 213-231.

James, Catherine, 2013. Vertigo: Redeeming the fall. *Performance Research: A Journal of the Performing Arts* 18 (4), 91-97.

LeBlanc, Jim, 2011. The acrophobe and the funambulist: Existential and cinematic perspectives on the phenomenology of extreme vertical space. *Emotion, Space and Society* 4(1), 1–7.

McDonough et al (Eds), 2004. Design and Emotions. London, Taylor & Francis.

Quinodoz, Danielle, 1997. Emotional Vertigo: Between Anxiety and Pleasure. Routledge, London & New York.

Rose, Gillian; Degen, Monica and Basdas, Begum, 2010. More on 'big things': building events and feelings. *Transactions of the Institute of British Geographers* 35(3), 334–349.

Simmel, Georg, 2002. The Metropolis and Mental Life (1903). In: Bridge, Gary and Watson, Sophie (Eds.) The Blackwell City Reader. Wiley-Blackwell, Oxford and Malden, MA, pp 11–19.

Simmel, Georg, 1978. *The Philosophy of Money* (1907). Translated by Tom Bottomore and David Frisby. London/Boston, Routledge.

Smart, Ariane, 2000. The Darkness and Claustrophobia of the City: Victor Hugo and the Myth of Paris. *Modern & Contemporary France*, 8 (3), 315–324.

Vidler, Anthony, 2000. Warped Space: Art, Architecture, and Anxiety in Modern Culture. MIT Press, Cambridge MA.

Yardley, Lucy, 1994. Vertigo and Dizziness. Routledge, London & New York.

Weizman, Eyal, 2002. The politics of verticality. Open Democracy (online): https://www.opendemocracy.net/ecology-politicsverticality/article_801.jsp

Zardini, Mirko, (Ed.) 2005. Sense of the City: An Alternate Approach to Urbanism. Canadian Centre for Architecture, Montreal.