

15th November 2016: Spaces for People and Nature



Research gaps

The three witnesses examined green space in urban environments and its relationship to human health and wellbeing as well as people's ability to access and appreciate green space. Discussions focused on the precise aspects of the natural environment that have positive effects in addition to the mechanisms by which this occurs and the extent of its impact.

With regards to the urban environment, [Prof Catharine Ward Thomson](#) asked the forum to consider how much green space is enough for human health and what should its qualities be? Green space can have a wide meaning including green and natural, managed or unmanaged and public and private spaces, as well as blue spaces (bodies of water). There is a relationship between green spaces and health and this is stronger in deprived communities. Neuroscience, epidemiological and experimental studies have shown that green space can positively influence, amongst other things, our mortality, cardiovascular and respiratory disease, mental health, sleep patterns and birth outcomes even before one considers indirect benefits such as improved air quality. There are differences in how we use and perceive green spaces depending on our age, culture, life stage and childhood experiences. We need to know how to best utilise this knowledge to combat health inequities through the provision of green space in urban environments.

[Laurie Parma](#) introduced her work studying which types and individual characteristics of green space are more beneficial for human wellbeing and happiness. Human beings benefit from more diverse environments which provide variety to keep us cognitively engaged. Hence Laurie specifically focuses on the relationship between biodiversity and human wellbeing. Green spaces have been shown to beat hedonic adaptation (the process by which, after a period of time, the effect of positive or negative stimuli usually dissipates and happiness reverts to a stable level). Thus, the hypothesis is that a more biodiverse environment will help overcome hedonic adaptation. Quantitative data will be gathered via an app, Naturebuzz, which gathers basic demographic information before surveying its users to help understand the moment-by-moment relationship between wellbeing and the environment before mapping its results geographically against biodiversity. The study will help us to understand why we preserve the environment and whether all green spaces are created equal.

[Prof Matthew Gandy](#) works on the project "Rethinking Urban Nature" and highlighted six themes, particularly related to spontaneous, unmanaged urban nature. First, we must consider what urban ecology encompasses, its dynamism and the ideological implications of a cosmopolitan ecology with many adventive species. Second, how do we conceptualise the independent agency of nature and its interaction with human agency? Third, what are the intersections between water, epidemiology and entomology in the urban environment? Fourth, how can we valorise wastelands or spontaneous urban nature? Fifth, how can the spontaneous dynamics of nature be integrated into innovative design in urban areas? Finally, how do communal urban spaces become important in collective memory and culture? A key issue is that biodiversity in cities is often underappreciated. Despite some detailed research in urban areas, some involving citizen science, many of the largest cities have no comprehensive database for urban flora, and we must consider how best to rectify this.

Wicked problems and questions generated by the open discussion included:

How 'natural' does a green space need to be to have a bearing on human wellbeing? This area requires more research. Childhood experience seems to influence our relationship with green spaces so new ideas of urban environments may not have as strong an effect on our wellbeing. **How important is greenness?** Is it greenness or is there some deeper understanding of beauty or the sublime that can be replicated by an urban environment? The response to different types of landscapes appears to vary over cultures and over time. Nonetheless the natural environment seems to provide 'soft fascination', i.e. it engages attention without people having to make an effort.

How can engagement with green space be encouraged? There can be a disparity between the perception of potential users of green space and that of independent measurements. For example, sense of safety can be a key barrier to the use of green space and this is in turn influenced by secondary factors such as cultural background, local knowledge and the quality of the green space. Public spaces need to be designed in a welcoming fashion with clear sightlines and inviting entrances but this need to be supported by social



programming and engaging local communities. Education that allows people to read the landscape may help them to derive greater pleasure from green space.

How do we encourage active transport? Active transport may represent a way of being exposed to nature without a conscious effort. There is evidence to suggest that exercise in a natural environment is better for your health than the same amount in a gym. We need safe and secure green spaces for people to walk and cycle.

Is there a disjunction between people who can appreciate visible and aesthetically pleasing environments versus appreciating more abstract ideas such as biodiversity? Moving beyond just the study of the visual and aesthetic experience of nature is important. Studies have started to examine the 'embodied presence' of nature and suggest that – probably at the microbiome level – we are affected by biodiversity regardless of our like or dislike of nature.

How do you generate the political momentum to protect less glamorous flora and fauna? Getting any engagement with statutory bodies to even inspect certain sites or data is challenging particularly for brown field sites. We need to encourage public appreciation of and engagement with nature in urban areas otherwise concepts like biodiversity can be perceived as too abstract.

Witness Profiles

Professor Catharine Ward Thomson

Professor of Landscape Architecture at the Edinburgh School of Architecture and Landscape Architecture (ESALA), Director of the OPENspace research centre and Associate Dean for Research, Knowledge Exchange and Impact for the College of Humanities and Social Science, University of Edinburgh

Catharine Ward Thompson's research focuses on inclusive access to outdoor environments, environment-behaviour interactions, landscape design for older people, children and teenagers and salutogenic environments. She also has expertise in the history and theory of urban park design and conservation, the history of landscape design and landscape aesthetics and perception. Her current research projects include a study funded by the National Institute of Health Research (NIHR) on the effectiveness of Forestry Commission Scotland's programme, 'Woods In and Around Towns' (WIAT). She also leads the £1.6m EPSRC-funded project, Mobility, Mood and Place (MMP), an interdisciplinary project developing co-design as a research tool.



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Laurie Parma

Researcher based within the Policy Research Group, Department of Psychology, University of Cambridge

Laurie Parma is a wellbeing researcher with interests ranging from environmental psychology to behavioural economics. She currently focuses on defining, measuring and monitoring wellbeing, aiming to generate insight to foster wellbeing and effective behavioural change. She is particularly interested in developing evidence-based wellbeing guidance and monitoring online platforms. She is currently co-leading a project with the Cambridge Conservation Initiative, which investigates the relationship between wellbeing and biodiversity. This project has developed a new smartphone app, called NatureBuzz (available on [iTunes](#) and [Google Play](#)), to capture the relationship between human wellbeing and the environment they are in moment-by-moment.



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Professor Matthew Gandy

Professor of Cultural and Historical Geography, Department of Geography, University of Cambridge

Matthew Gandy is a cultural, urban and environmental geographer with particular interests in landscape, infrastructure and more recently bio-diversity. The historical scope of his work extends from the middle decades of the nineteenth century to the recent past. His research ranges from aspects of environmental history, including epidemiology, to contemporary intersections between nature and culture, including the visual arts. He has written the award-winning books *Concrete and clay: reworking nature in New York City* (2002) and *The fabric of space: water, modernity, and the urban imagination* (2014).



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