

## 128 Intentional and incidental nature experiences in urban nature

Yu Liu, Anton Stahl Olafsson, University of Copenhagen, Denmark

### Introduction

The importance of urban nature has been emphasized alongside the concept of sustainable city and urban livability. Urban nature can refer to all kinds of green spaces, such as lawns, community gardens, urban parks, urban forests and urban cemeteries. It is known that urban nature delivers the cultural ecosystem services that largely link to human well-being. Hence, many scholars focus on multi-functionality of urban nature (Fagerholm et al., 2019; Hansen et al., 2019), and try to find the link between motives and experiences (Vierikko et al., 2020) in order to have a broad understanding of the day to day practice of urban nature. However, due to the extinction of the experiences and loss of human-nature interactions, more research should pay attention to nature experiences in order to develop sustainable urban recreational destinations with high citizens' experiential values.

The built environment with access to infrastructure and green spaces are preferred during the lockdown (Amerio et al., 2020). The human-nature interaction is greatly motivated by intentional uses of urban nature provided by infrastructures, and the fact urban nature can provide spaces for social activities and so on. Yet, little is focus on how restorative experiences, emotions, surprises and sensory experiences can encourage urban dwellers a close contact with nature. Does the increasing recreational use of urban nature at this special moment indicate an increasing need of restorative benefits and better well-being from the urban nature? And is the intentional recreational use of urban nature generated by any incidental experiences gained from urban nature or indirect use of urban nature, due to the fact that well-practiced behaviors are generated by incidental experience? This study categorizes nature experiences into intentional nature experiences and incidental nature experiences, and aims to answer the following questions (1) what is intentional and incidental nature experience and what are the most common mapped activities in terms of the intentional and incidental use of urban nature (2) which type of

urban nature and which landscape feature(s) can provide more intentional or incidental nature experiences (3) what is the relationship between these two kinds of nature experiences?

### Material and methods

PPGIS survey is conducted in the platform of Maptionnaire. The PPGIS survey provides questions about gender, year of birth, the number of people in household, the number of children, the level of education and working status. Then, places visited are mapped with side questions about experiential values among 19 options, while home address of each respondent is asked to identify. Respondents can choose more than one among these 19 options, which are Biodiversity, Close to nature, Walk/Stroll, Being Outdoors, Aesthetic View, Nature Sounds/Silence, Observe Nature, Relax Recharge, Nice Smells, Being With Family and Friends, Exercise/Sport, Cultural Heritage, Feelings/Inspiration/Surprise, Spiritual values, Picnic, Play with Children, Dog Walking, Shortcut and Closeness to Water. For each place or route, respondents are asked to identify means of transportation and frequency of visit.

### Study area and data collection

The case study area is Copenhagen urban area. PPGIS survey was handed out to citizen panels of five local districts in Copenhagen from May to August 2020. We obtained the data with 4947 home addresses, 8819 visited places as well as 39235 mapped experiential values.

### Preliminary results

Incidental nature experience in this study refers to experiencing or being in nature through direct intention, such as picnic, meeting with friends. Incidental nature experience includes all sensory experiences in this study. Among all 19 experiential values, this study shows people travel longer distance from home for experiences such as Closeness to water, Exercise or Sport, Close to nature

and Aesthetic views. These experiences are highly environment dominated.

Green and blue features are the most important elements in urban nature. Hence, this study also explore how nature experiences are associated with tree cover density and distance to water feature individually. People mapped experiential values related to high tree cover density when they visited places with cultural heritages, spiritual values, nice smells and high biodiversity index. When people want to experience aesthetic views, purely be close to nature or exercise/sport, they tend to visited places with close distance to water.

We also find the incidental nature experiences and intentional nature experiences are intertwined. So incidental nature experiences can be

regards as by-products of intentional nature experience.

### **Next step**

Later in this study, we will focus more on the type of urban nature in terms of providing these two kinds of nature experiences. This study will further identify the linkage between individual incidental nature experiences and intentional nature experiences. Considering motives for people to use urban nature as recreational destinations, we also aim to discuss how to plan and manage urban nature in terms of intentional and incidental nature experiences to the long-term sustainability.

### **References**

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