

# Surveying preferences for an urban park and visualizations of potential scenarios

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Value+ is a European Union funded collaborative project to enhance public participation by using novel techniques during the participatory planning and design processes. Edward Street Park, located in Sheffield, UK city centre, is one of the six real-world project sites besides other five North West European cities. The advent of advances in computer and mobile technologies currently allows users to visualize and experience historical or future landscapes in real-time. According to Ervin (2001), landscape(s) consists of six components: 'landform, vegetation, structure, water, animals and atmosphere'. Research to date has investigated landform, vegetation, structure, and water influencing the user's landscape preferences in a given scene. It has been shown that all these mentioned components and animals and atmosphere affect the perceptions and preferences of the users, both individually and collectively. Structure, manmade or natural (de Vries et al., 2012), landform including topographical features and the presence or absence of water and vegetation, all have significant impact on a user's preferences (Hagerhall et al., 2004). This research investigates user preferences in the urban parks and how these preferences potentially affect the park use and sense of place. Additionally, the way users can contribute to the improvement of the park environments by sharing their opinions and have their say in the decision-making process. Our latest research showed that 3D visualisations have high potential for improving the communication between users and professionals (Bilge et al., 2016). In this research, participants were asked to articulate how they feel about the site after viewing the 3D model of the park by answering questions about their likes and dislikes in the park's layout and functions. Another group of participants were shown the 3D walk-through and were asked to suggest improvements by deciding on one of the six pre-determined viewpoints. These suggestions were sketched on a mobile device application, ZoomNotes, to share improvements they want to be made in the park. After collecting all the sketches from public for the preferred developments under the light of place-making criteria (Project for Public Spaces, 2010), the most frequent options were visualized as an individual scenario for each viewpoint according to user's preferences. Based on the answers from the surveys and sketches made by participants, our study describes how people's preferences on design of the parks influences the park use and sense of place and how mobile devices can contribute to engaging public for improvements of existing landscapes during the decision-making process.

## References

Bilge G., Hehl-Lange S. & Lange E., (2016). The use of mobile devices in participatory decision-making. *JoDLA –Journal of Digital Landscape Architecture*, 234-242.

de Vries, S., De Groot, M. & Boers, J., (2012). Eyesores in sight: Quantifying the impact of man-made elements on the scenic beauty of Dutch landscapes. *Landscape and Urban Planning*. 105, pp. 118-127.

Ervin, S. M., (2001). Digital landscape modeling and visualization: a research agenda. *Landscape and Urban Planning*, 54 (1-4), pp. 49-62.

Hagerhall, C. M., Purcell, T. & Taylor, R., (2004). Fractal dimension of landscape silhouette outlines as a predictor of landscape preference. *Journal of Environmental Psychology*. 24, pp. 247-255.

PPS (Project for Public Spaces), (2000). *How to turn a Place Around*. New York: Project for Public Spaces

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