



“Gheorghe Asachi” Technical University of Iasi, Romania



HOW WIDTH AND COLOR VARIABLES OF GREENWAYS AFFECT USER SATISFACTION

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Abstract

Urban greenways are playing an increasingly important role in promoting green and healthy lifestyles. However, the correlation between the physical properties of greenways and user satisfaction is unclear, so the health benefits of greenways cannot be effectively brought into full play. To figure out what physical properties of the greenway affect the user satisfaction, an empirical study was carried out. Multiple linear regression is used to evaluate the users' satisfaction of 90 randomly selected samples of greenways in Chengdu. MATLAB visual numerical analysis is used to quantify the color values of the sample pictures. The results show that eco-belt greenways in Chengdu adopt a great variety of hues and are presented with medium saturation and medium brightness. Users significantly prefer red asphalt pavement for large-width greenways and non-asphalt pavement for small and medium-width greenways. The study finds that greenway widths and pavement colors (hue and brightness) are the main factors affecting user satisfaction. It is suggested that designers make differentiated designs for greenways of different widths in emerging urban communities. Large-width greenways are more compatible with red asphalt and moderate brightness due to broad space vision. Small and medium-width greenways are more congruent with non-asphalt pavement and moderate brightness. This study has positive significance for the user's satisfaction with urban greenways, greenway design and construction, environmental management, and the health and well-being of urban residents.

Keywords: color, greenway, road width, satisfaction

Received: October, 2022; Revised final: December, 2022; Accepted: December, 2022; Published in final edited form: January, 2023

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