



Eye-tracking and heatmap devices revealed greater attention on natural elements rather than streets in more lush settings. Additionally, greener scenes were correlated with more dispersed attention, highlighting their essential role in influencing gaze patterns and navigation. Facial analysis unveiled more detailed emotional responses, showcasing elevated positive emotions associated with green and complete streets, or GCS, where road networks that are safe and accessible for all users are also environmentally responsible.

Some differences in emotional responses to green spaces arose in comparing data from individuals' urban or rural backgrounds, with urban residents consistently expressing more positive sentiments across various image categories. Nevertheless self-reported sentiments using a subjective emoji-based scale highlighted that images featuring high levels of green space received more joyful emoji ratings. [A complete presentation of the findings is available here.](#)



This research not only provides valuable insights into the relationships between nature, street design, and human reactions, but it also has global implications. The findings underscore the need for further exploration into the disparities between unconscious reactions and conscious assessments, the role of materials, textures, and patterns in visual preferences, and the applicability of these results within diverse urban settings. By demonstrating the relationships between nature, street design, and human reactions, this research contributes valuable insights to inform future urban planning strategies and improve the quality of urban spaces using green infrastructure and more natural elements. Tufts University professor Justin Hollander explained, “Green infrastructure can have a direct and measurable psychological impact on those who see it: residents, visitors, workers”. By providing evidence of ways that ecologically centered spaces support mental health and well-being, this research can inform policies that encourage investments in greener design. Moreover, the study's implications extend beyond Devens, confirming broader literature on environmental planning and human behavior.

Ann Sussman, President of the Human Architecture and Planning Institute, adds that “understanding how street designs influence human behavior is a cornerstone for crafting urban spaces that consider feelings as well as functionality”. Integrating these insights into urban planning can pave the way for more inclusive and sustainable development that promotes well-being worldwide.

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