

## The Influence of Temporal Variations on the Perception of High Street Soundscapes Across Grey, Green, and Blue Typologies

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### INTRODUCTION & AIM

High streets are affecting many components such as weekdays differences, hourly changes or seasonal conditions influence the street sound atmosphere and pedestrian behaviours [1], [2]. In literature, temporary changes investigated in street aspects depends on the tourism season, weekend-weekdays or blossoms seasons-winter seasons aspects [3]. Street typologies were not examined in terms of perception of high streets. This study addresses this gap by examining how grey, green, and blue high-street environments relate to perceptions vary by time of day. Group soundwalks were conducted along specified routes on two London high streets.

### METHOD

#### Data collection

- 10 autonomous soundwalk groups
- 9 locations in Chelsea & Camden, London



#### Data captured

- Acoustic data (environmental sounds)
- Perceptual data (eventfulness, pleasantness, vibrancy, calmness)

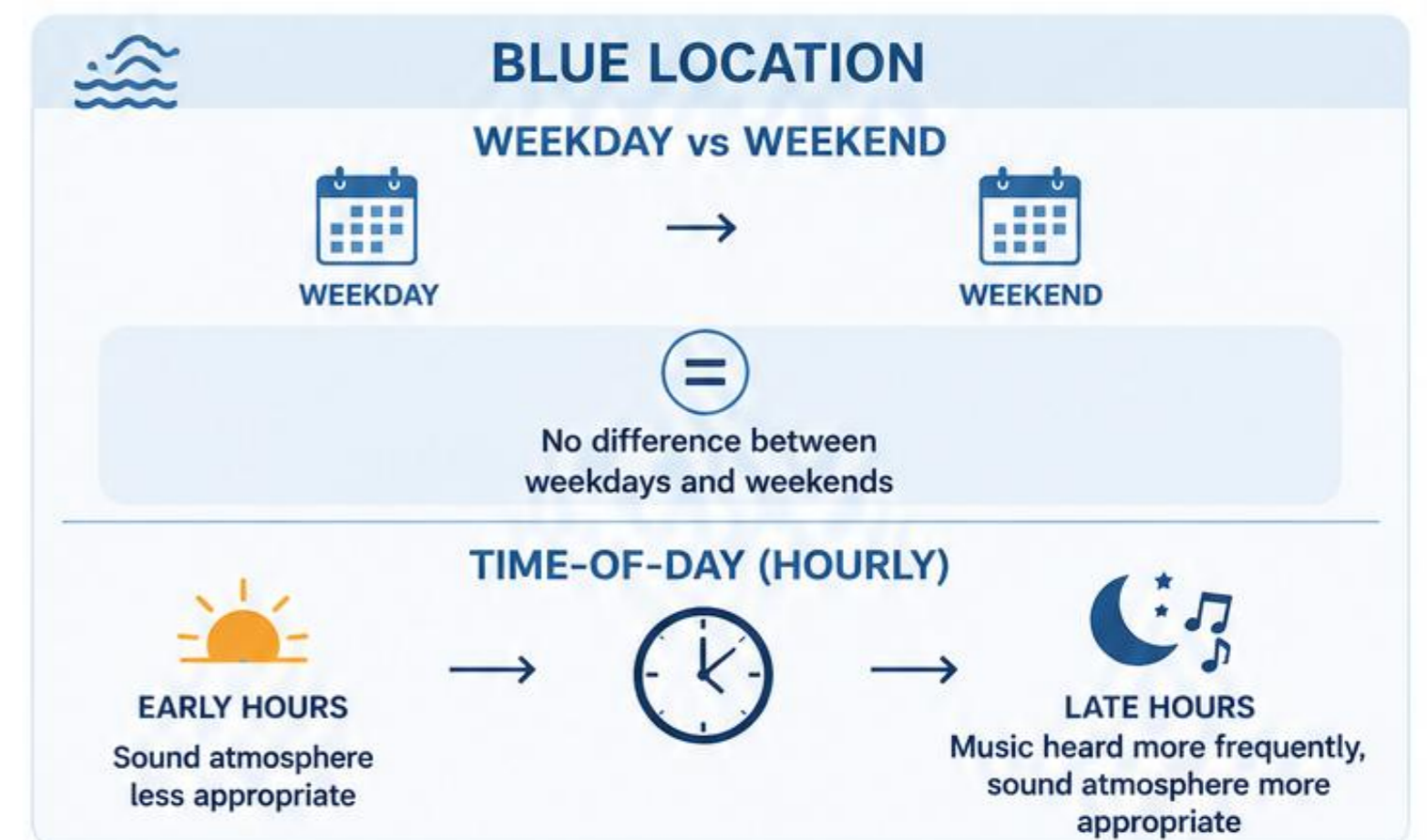
#### Statistical analysis

- Kruskal–Wallis test (overall differences)
- Mann–Whitney U test (pairwise comparisons)
- Nonparametric tests suitable for non-normally distributed perceptual data.

### CONCLUSION

Temporal differences indicated that in grey areas weekends were rated as less monotonous and uneventful, but more vibrant, restful, and walkable. In green spaces, weekends were calmer, less chaotic, and more sound-appropriate. The blue location did not show any difference between weekdays and weekends. Grey areas felt more welcoming and relaxing, with later hours perceived as safer, whereas in green areas early hours are calmer and more monotonous but late hours feel safer and eventful. In blue locations music sound heard more frequently in late hours, people find sound atmosphere more appropriate than in the early hours.

### RESULTS & DISCUSSION



### REFERENCES

- [1] Z. S. Ozturk, J. Kang, and F. Aletta, "Soundscape Research in Streets: A Scoping Review," *Sustainability* (Switzerland), vol. 17, no. 8, Apr. 2025, doi: 10.3390/su17083329.
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- [3] H. Nath et al., "Assessment of index-based traffic noise annoyance level at major road intersections in a tourist city: A case study towards environmental sustainability," *Heliyon*, vol. 10, no. 21, Nov. 2024, doi: 10.1016/j.heliyon.2024.e40005.