

# Improving the Cartographic Visualization Techniques of Platial Features

## The Example of London Parks



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In recent years there has been an increase in platial studies [1] but any cartographic depictions of platial aspects remain inadequate and often rely on supportive text [2 & 3]. Using the increasing ties between cartography and art [4 & 5], techniques inspired by illustrative map makers were tested to determine their suitability to convey platial relationships.

### OBJECTIVE

This study attempted to improve the cartographic visualization of platial aspects. The study uses two parks in South West London where platial aspects were identified through park user interviews. The four identified platial aspects were discussed and attempts to improve their cartographic visualizations were made. Accurate park personas were created based on responses from the interviews, and map visualizations attempts were generated to represent their platial relationships. The visualizations ability to convey platial information was evaluated by an online survey

### RESEARCH QUESTIONS

1. Which aspects related to place are important and would need to be better visualized?
2. Which cartographic means can be employed to provide better visualization of the identified phenomena?
3. Do the new visualization techniques better communicate the sense and identity of a place? Why do they/do they not do this?

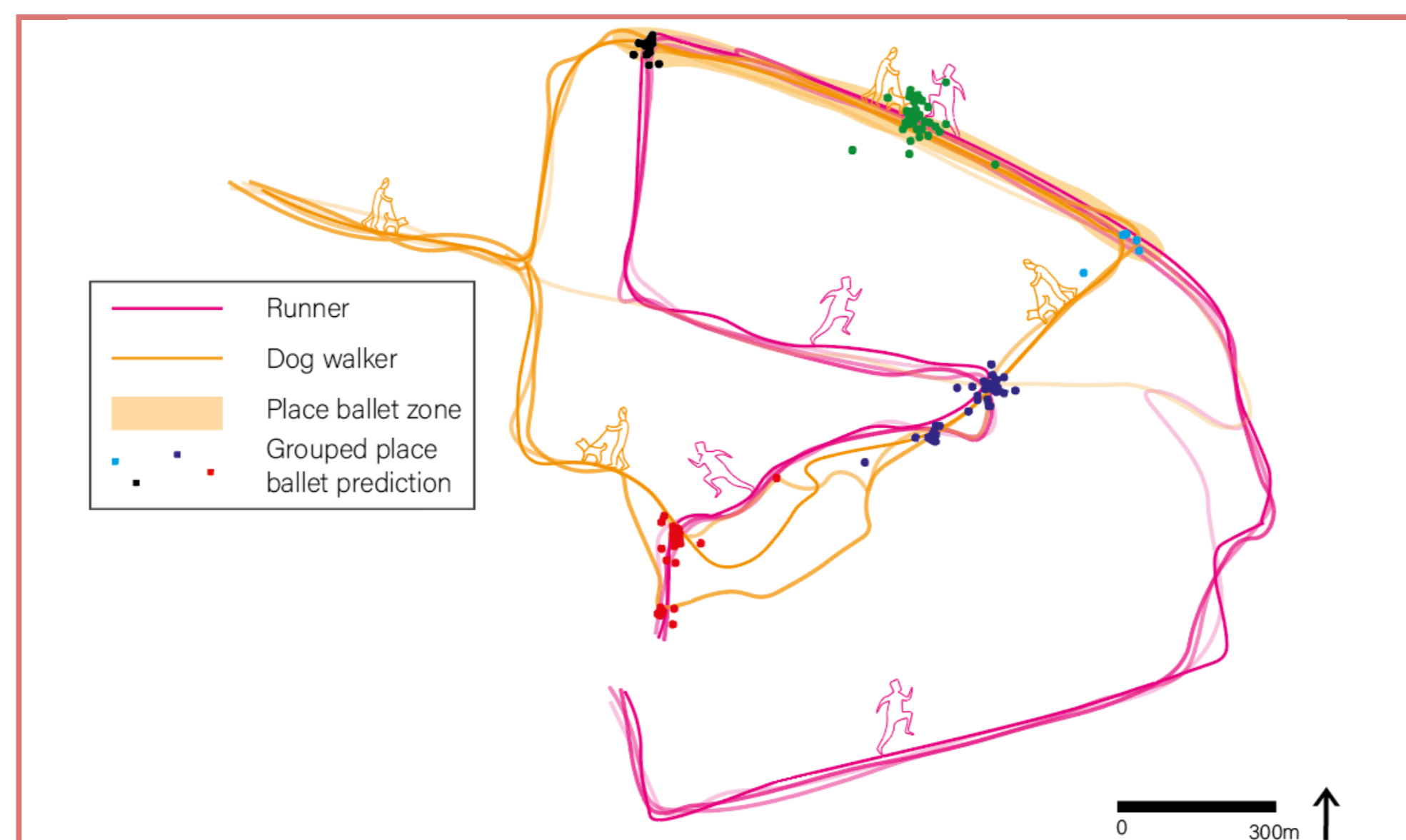


Fig. 1: Survey respondent's estimations where the place ballet was occurring between the runner and dog walker.

### METHODOLOGY

Bushy and Hurst Park were used as study sites. Five regular users of either park were interviewed to uncover their park habits. From this, accurate park personas for both parks were created. Using inspiration from illustrative map makers, multiple maps were created (such as Fig. 1 & 2) with novel visualisation techniques. The visualizations attempted to depict the platial relationships experienced by the generated personas. The maps focused on four areas: changing sense of place along a route; characteristics and location of place ballets; map styling to depict stress and map styling to depict the affordances of subregions. The effectiveness of the techniques was evaluated via an online survey and the appropriate statistical analysis.

### RESULTS

Results show that the line styling techniques were often associated with spatial relationships, but jagged lines have the most potential in depicting stress. Improvements to the temporal elements of a place ballet have been made, but other elements require further development. A greater understanding of how to accurately display the location of place ballets has also been established. A hierarchy of radiating stress lines was established, allowing the map maker to better communicate relative stress across multiple subregions. Finally, a subtle affordance icon layer can be used to define subregions and the affordances within them. This is currently more successful in depicting the affordances in homogeneous regions than heterogeneous areas.

### CONCLUSION

The four research directions of this thesis were bountiful in research opportunity. Each direction could have had its own thesis written about it! Depicting place ballets remains a difficult task but a greater understanding of how to show the temporal nature of place ballets has been achieved. This can be attained by the addition of faded lines and the inclusion of character depictions. These developments and techniques in cartographic platial visualisation are accessible to any map maker, regardless of experience, to better communicate their places visually.

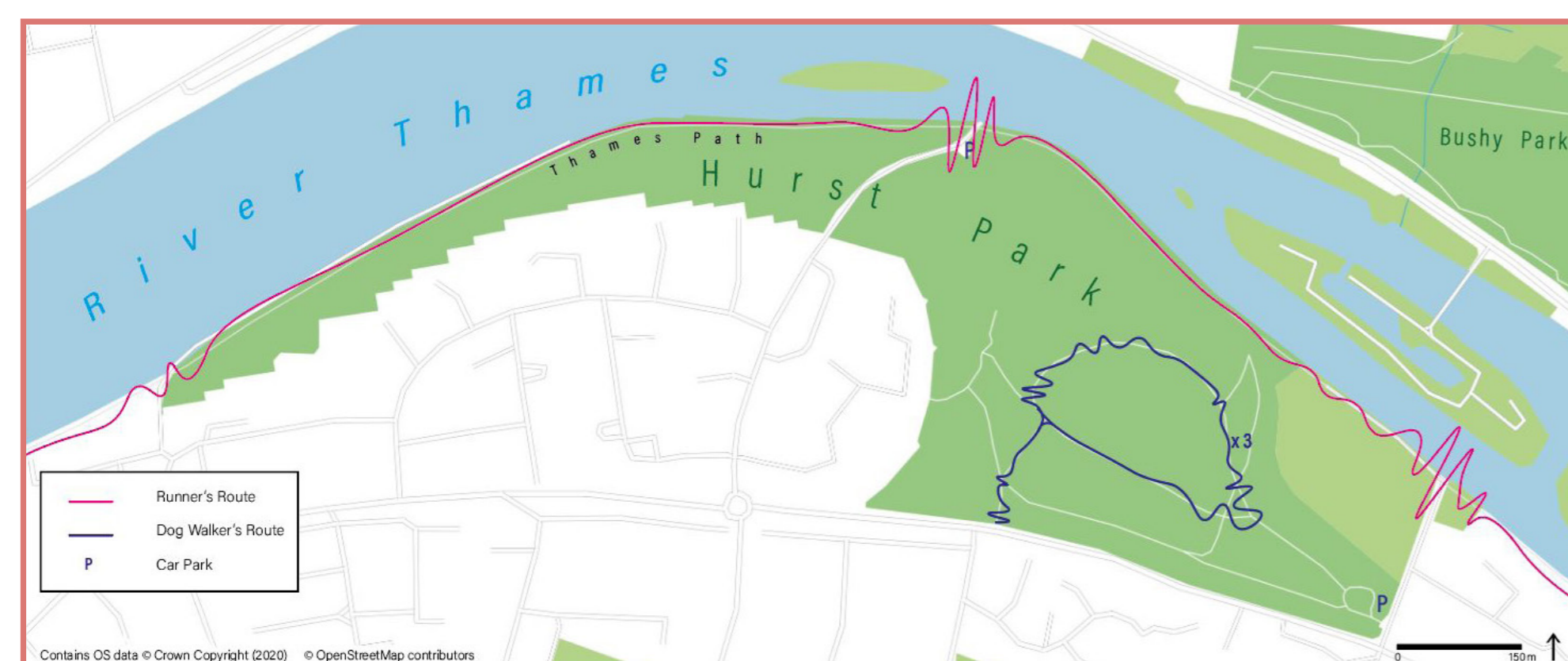


Fig. 2: The 'jagged' line styling in Hurst Park

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### KEYWORDS

Place, place ballet, atmosphere, sense of place, stress

### REFERENCES

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