

Sustainable construction solutions for outdoor public spaces: modernity and tradition in optimizing urban quality



Albano J. G. Martins

albano.jgmartins@fe.up.pt

Supervisor(s): Ana Vaz Sá¹, Nuno Abrantes²

1. Faculty of Engineering of the University of Porto (FEUP)
2. Portucalense University (UPT)



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Introduction

The planning and development of outdoor public spaces are a significant area where progress needs to consider cultural and environmental heritage. Streets, squares, and parks are fundamental to urban infrastructure and challenge reconciling modernity and tradition while pursuing sustainable construction solutions.

Traditional practices and vernacular wisdom contribute depth to sustainability. While modern innovations are efficient, traditional wisdom grounds urban development in cultural and historical contexts.



Urban Street

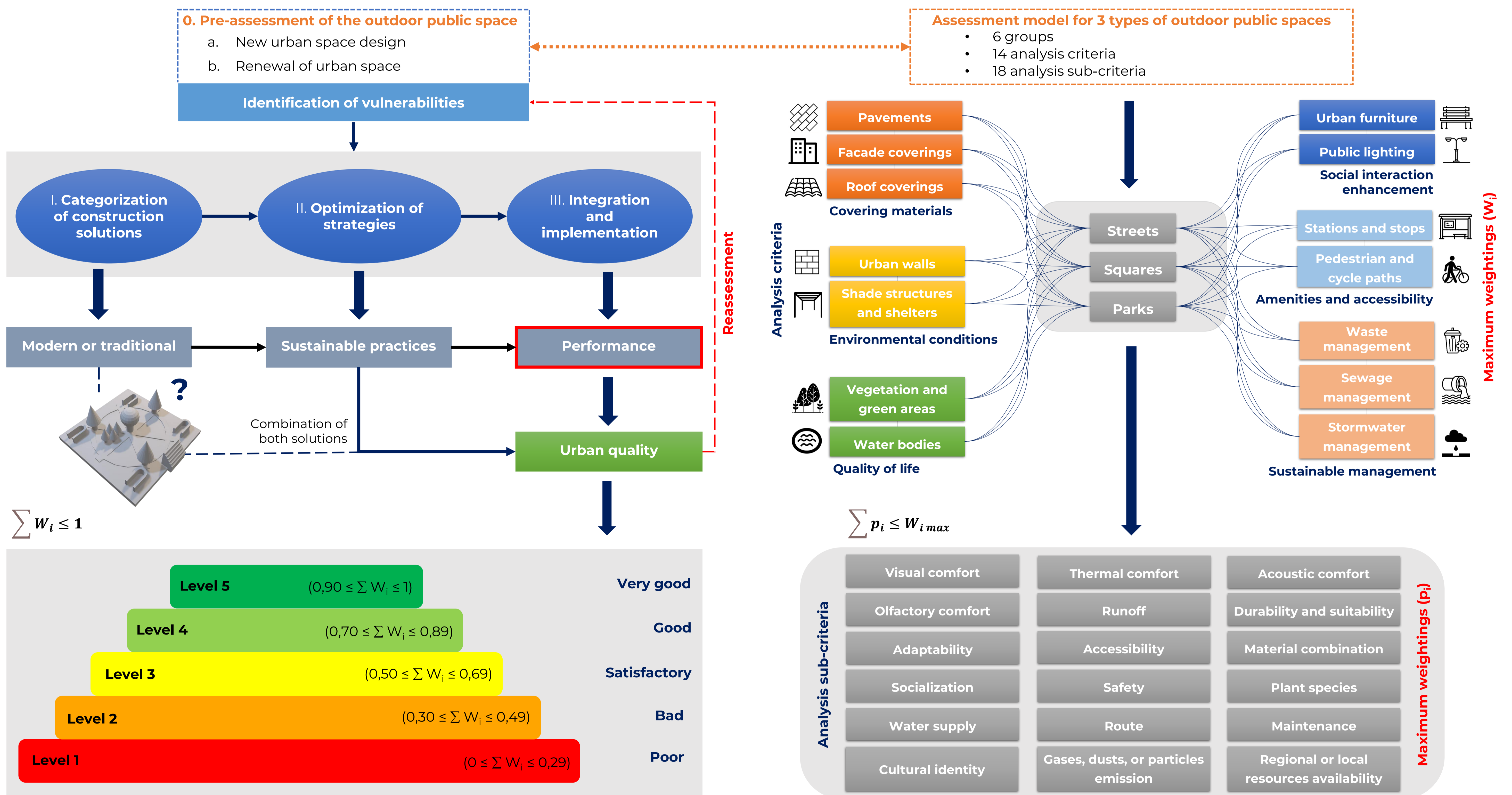


Urban Square



Urban Park

Methodology



Application of the Methodology (Case Study)

The case study focuses on an urban square named “Largo D. João III” in Porto, Portugal, showcased in a video clip to visualize the surroundings. The video clip can be accessed via QR code number 1.

The urban square assessed received a rating of 0.85, corresponding to level 4, which is considered “good” according to the proposed scale for urban quality. A detailed description of the methodology, framework, and results, as well as a design proposal, can be found in the urban square assessment report. Access the full report using QR code number 2.



QR code number 1



QR code number 2

Conclusions

- This tool, aimed at urban renewal and design, facilitates the development of municipal guidelines and specific regulations and promotes sustainable construction solutions by incorporating traditional or vernacular methods tied to the bioclimatic concept.
- The urban heritage can be adapted to climate conditions, but this requires exact indicators for fine-tuning these solutions in the outdoor public space.
- This balanced approach addresses the functional needs of urban environments and preserves and enhances cultural identities.

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