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The Influence of Garden Spatial Configuration on Tourist Behavior: A Systematic Review Based on Space Syntax

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ADMINISTRATIVE INFORMATION

Support - None.
Review Stage at time of this submission - Completed but not published.
Conflicts of interest - None declared.
INPLASY registration number: INPLASY202560013
Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 3 June 2025 and was last updated on 3 June 2025.

INTRODUCTION

Review question / Objective This study aims to systematically review the impact of garden spatial configuration on tourist behavior using space syntax theory.

Rationale Garden spaces are essential components of urban cultural landscapes, influencing visitor experiences and cultural perception. While previous studies have explored individual cases, there is limited systematic synthesis of how spatial configuration affects tourist behavior through quantitative tools like space syntax.

Condition being studied The influence of garden spatial configuration on tourist behavior based on space syntax analysis.

METHODS

Search strategy ("Space" AND "syntax" OR "spatial" AND "syntax") AND ("garden" OR "park" OR "grove").

Participant or population Tourists visiting garden or park environments.

Intervention Spatial configuration of garden spaces analyzed using space syntax.

Comparator Different spatial configurations of garden environments.

Study designs to be included Empirical studies using quantitative, qualitative, or mixed methods, including studies applying space syntax analysis to tourist behavior in garden environments.

Eligibility criteria Additional inclusion criteria:
Studies published between 2010 and 2025
Articles published in peer-reviewed journals or conference proceedings
Full-text available in English or Chinese
Exclusion criteria:

Theoretical or conceptual papers without empirical data
Studies not applying space syntax methods
Studies not focusing on tourist behavior in garden or park environments.

Information sources Electronic databases searched include Web of Science, Scopus, JSTOR, and ScienceDirect. The search was conducted up to January 2, 2025.

Main outcome(s) The main outcomes include tourist path selection, spatial preferences, stay hotspots, and behavioral responses in relation to spatial configuration variables such as integration, connectivity, and visibility derived from space syntax analysis.

Quality assessment / Risk of bias analysis The methodological quality and risk of bias were assessed using the Crowe Critical Appraisal Tool (CCAT). The tool evaluates eight domains including preliminaries, introduction, design, sampling, data collection, ethics, results, and discussion. Each study was independently scored by two reviewers with a maximum of 40 points. Discrepancies were resolved through discussion or a third reviewer.

Strategy of data synthesis A narrative synthesis approach was employed to summarize and interpret the findings of the included studies. The synthesis focused on identifying patterns in spatial configuration variables (e.g., integration, visibility, connectivity) and their influence on tourist behavior. Visual tools such as PRISMA flow diagrams, keyword co-occurrence networks, and theoretical framework heatmaps were used to aid interpretation and illustrate thematic trends.

Subgroup analysis Subgroup analyses were conducted based on garden types (e.g., classical gardens, urban parks, pocket parks), spatial configuration variables (e.g., high vs. low integration or visibility), and regional differences among studies (e.g., China, Iran, Pakistan, Poland).

Sensitivity analysis Sensitivity analysis was not conducted, as this review employed a narrative synthesis approach without statistical meta-analysis.

Country(ies) involved China and Malaysia.

Keywords Garden spaces; Space syntax; Tourist behavior; Systematic review; Spatialconfiguration.

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