



ICCAUA Proceedings Journal

Proceedings of the international conference of contemporary affairs in architecture and urbanism-ICCAUA
Volume 9 (December 2026), 2610130

ICCAUA
Proceedings Journal
<https://journal.iccaua.com/>

Journal homepage: <https://journal.iccaua.com/>

DOI: <https://doi.org/10.38027/ICCAUA2026EN0130>

Understanding Youth Perception of Urban Public Space Typologies: Implications for Youth-Centric Urban Design in Indian Cities

¹ Ujjal Halder, ² Harshit Sosan Lakra, ³ Saptarshi Kolay

^{1, 2, & 3} Department of Architecture and Planning, IIT Roorkee, India

¹ E-mail: u_halder@ar.iitr.ac.in, ² E-mail: harshit.lakra@ar.iitr.ac.in, ³ E-mail: saptarshi.kolay@ar.iitr.ac.in,

¹ ORCID: <https://orcid.org/0009-0000-4563-0274>, ² ORCID: <https://orcid.org/0000-0002-2462-0285>, ³ ORCID: <https://orcid.org/0000-0003-0910-1740>

Abstract

Received: 28.04.2026
Revised: 26.06.2026
Accepted: 01.07.2026
Available online: 10.07.2026

Copyright © 2026 by the author(s).
All rights reserved.

This article is published under an open-access model and is made available in accordance with the terms of the Creative Commons Attribution 4.0 International Licence (CC BY).



The publisher maintains a neutral stance concerning jurisdictional claims in published maps and institutional affiliations.

This article has been selected and peer-reviewed for publication in this journal as part of the 9th International Conference of Contemporary Affairs in Architecture and Urbanism, held on 7–8 May 2026 in Istanbul, Türkiye.

Urban public spaces shape social interaction, well-being, and everyday experience, especially for young people. This study examines youth perception of four common urban public space typologies—parks and green areas, plazas and hardscaped spaces, neighborhood streets, and waterfront spaces—in the Indian context. Five dimensions (accessibility, spatial quality, activity support, identity and belonging, perceived safety) were measured through a structured Likert-scale questionnaire administered to 90 respondents aged 19–30 in Jaipur and other Indian cities. Three findings emerge: (i) a perception–preference disconnect, with mean perception clustering tightly across typologies (3.10–3.33) yet 55.6% decisively preferring parks; (ii) cross-city convergence, with no significant differences between Jaipur and other cities; and (iii) the neighborhood-street paradox, where streets are accessible but underperform on quality and dwellability. By pairing perception with stated preference across typologies, the study offers an original, youth-centred evidence base and transferable design recommendations for inclusive, responsive public spaces in Indian cities.

Keywords: Youth Perception; Urban Public Spaces; Public Space Typologies; Urban Design Elements; India.

1. Introduction

Urban public spaces are foundational to civic life. It provides spaces for social encounter, recreation, cultural expression, and mobility, which are essential for daily life. For youth, these public spaces are not only a backdrop, but they are places where identity, social life, and sense of belonging are actively shaped (Borini & Campioli, 2024; Gray & Manning, 2022). India, with a vast youth population and rapidly densifying urban areas, faces a particular challenge: ensuring that public spaces are designed and delivered as per the needs of aspiring young citizens. While research on public spaces, walkability, blue green infrastructure, and healthy cities has grown in large numbers, how young people in India experience, interact, and perceive different types of public spaces remains significantly underexplored.

Emerging international research has started looking at how young people perceive public space, especially studies in Europe and East Asia, which consistently document and highlight the importance of safety, autonomy, sociability, and aesthetic quality (Jurkevičienė & Budrytė, 2025; Qi et al., 2024). A growing strand of this work focuses specifically on how young people perceive and emotionally respond to green and open spaces. Studies of young adults report that the perceived quality of urban green space—its attractiveness, sensory comfort, and facilities—shapes both their willingness to use parks and their emotional well-being (Chen et al., 2020; Wang et al., 2023), while perceived access to such spaces is associated with lower psychological distress among urban youth (Mollaesmaeili et al., 2024). Parallel scholarship argues that the publicness of urban space is itself contingent on how younger users are recognised and accommodated within it (Zahn, 2025). Taken together, this literature establishes perception as a legitimate and policy-relevant object of study, yet it remains concentrated in European and East Asian settings and rarely compares multiple space typologies within a single Indian sample.

In the Indian context, existing perception studies have mostly examined one place or one city at a time. Limited attempts have been made to systematically cross-typological comparison within a consistent methodological framework (Dhasmana et al., 2022; Katapally et al., 2024; Yadav & Kumari, 2024). This gap matters because urban design interventions are majorly typology-specific: a strategy that works well for a neighborhood park will not simply work, without adaptation, to a riverfront promenade or a market plaza. Without typology-sensitive evidence, design recommendations risk being either generic or selectively biased toward the most visible categories of space.

This study addresses that gap by examining youth perception across four widely encountered public space typologies in Indian cities—parks and green areas, plazas and hardscaped spaces, neighbourhood streets, and waterfront spaces—through five evaluative dimensions: accessibility, spatial quality, activity support, identity and belonging, and perceived safety. The dimensional framework synthesises established public-space-quality assessment models (Mehta, 2014) with

youth-centric concerns highlighted in recent literature on placemaking, gendered safety and place attachment (Borini & Campioli, 2024; Qi et al., 2024; Yadav & Kumari, 2024; Aziz Amen & Ali, 2025; Amen et al., 2024).

Three research questions guide the inquiry: (i) How do young people perceive the four selected public space typologies across five urban-design dimensions? (ii) Do perceptual ratings differ significantly based on gender, age, and city group, especially between Jaipur, other Rajasthan cities, and the rest of India? (iii) Which design dimensions do youth consider as most important for a youth-friendly public space? This paper, by answering these questions, offers a comparative, perception-based evidence base that can inform design briefs, public space policy and youth-engagement protocols in Indian urban contexts.

1.1 Youth and public space in the Indian urban context

Indian cities present a uniquely complex public-realm condition: high pedestrian density, climatic stress, mixed land uses, and informality exist with rapidly modernizing plazas and waterfronts. Young people move through this complexity every day, from heritage spaces to modern riverfronts. Recent research on Indian urban youth suggests that informal threshold spaces, including streets that sit on the edge of public and private life, play a major role in youth socialization (Yadav & Kumari, 2024). At the same time, growing concerns about gendered safety in Indian public spaces—particularly for young women—have prompted calls for more inclusive, transparent, and well-illuminated environments (Dubey et al., 2025). Evidence from Indian pedestrian environments reinforces this picture: assessments of footpaths and market streets consistently find that inadequate infrastructure, poor maintenance, and safety concerns suppress the walkability and dwell-value of everyday street space (Khan et al., 2025). National studies of active living among Indian children and youth likewise show that contextual and environmental factors strongly condition whether young people take up activity in their neighborhoods (Katapally et al., 2024; Patel et al., 2024).

1.2 Aim and contribution

The aim of this study is to produce a typology-comparative, perception-based assessment of urban public spaces from the standpoint of Indian youth, and to translate the findings into design-oriented insights. The contribution is threefold: (a) a five-dimensional, typology-sensitive evaluation framework for youth-centered public space; (b) empirical evidence on within-subjects differences in perception of four typologies, including an explicit Jaipur–Rajasthan–pan-India comparative lens; and (c) a set of grounded recommendations for designers, planners, and policymakers to support youth inclusion in the Indian public realm. In relation to the existing literature, the contribution sits at the intersection of two strands that rarely meet: perception-based public-space quality assessment, which has shown that the perceived quality of public space governs use, walkability and sense of community (Ramos-Vidal & de la Ossa, 2024), and the place-attachment tradition, which holds that affective and symbolic bonds to place operate alongside instrumental quality (Paydar, 2024). By foregrounding youth and comparing four typologies through a single instrument, the study advances the contemporary urban-design agenda—central to the scope of this journal—of designing inclusive, age-responsive public realms in rapidly urbanizing contexts.

2. Materials and Methods

A typology-based empirical approach was adopted, informed by the spatial-quality-assessment tradition in urban design (Mehta, 2014; Qi et al., 2024) and refined to foreground youth concerns. The research process is summarised in Figure 1.

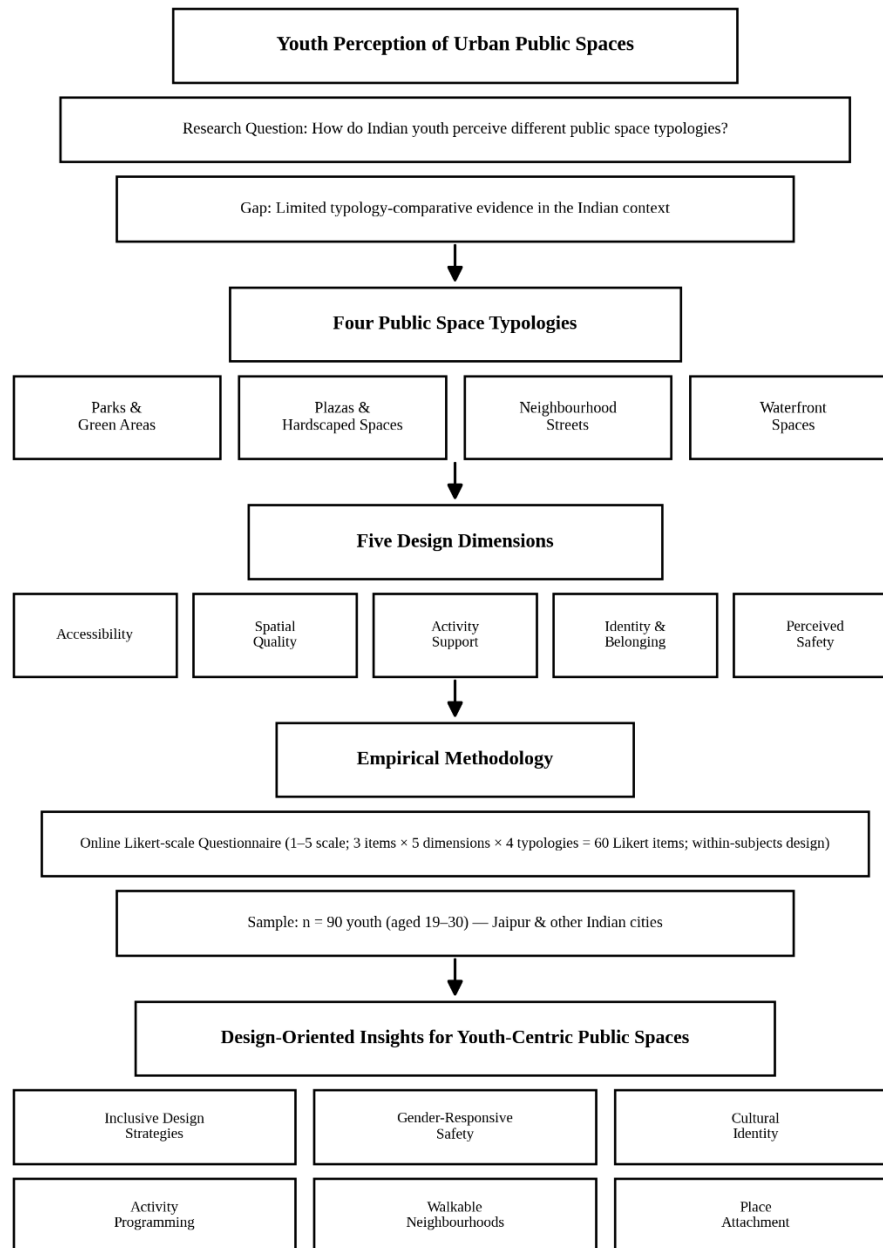


Figure 1. Structure of the Study.

2.1 Conceptual framework: five dimensions

Five dimensions were operationalised, each grounded in established literature: (a) Accessibility—ease of physical and social reach (Bills et al., 2022; Mouratidis, 2024); (b) Spatial Quality—maintenance, environmental comfort, sensory pleasantness (Qi et al., 2024); (c) Activity Support—provision for recreation, socialisation and physical activity (Borini & Campioli, 2024); (d) Identity and Belonging—sense of place, cultural reflection, recognition of youth (Qi et al., 2024); and (e) Perceived Safety—personal security, lighting and surveillance (Dubey et al., 2025). All dimensions were measured using three survey items, scored on a 1–5 Likert scale (1 = Strongly Disagree; 5 = Strongly Agree), and the three scores were averaged to yield a single score for each dimension. The selection of these five dimensions is consistent with recent perception-based assessments, which converge on access, environmental and sensory quality, opportunities for activity, identity and safety as the principal axes along which users evaluate public space (Naghbi et al., 2024; Cheng, 2025). Treating accessibility and perceived quality as separate constructs is supported by evidence that walkable access and perceived quality exert distinct, independent effects on how public space is valued (Ramos-Vidal & de la Ossa, 2024; Shan et al., 2022).

2.2 Public space typologies

The study looked at four typologies commonly found in Indian urban settings. First, parks and green areas – open, vegetated, and used for recreational areas. Second, plazas and hardscape spaces - paved civic squares and open paved areas. Third, neighborhood streets- everyday spaces for pedestrians and vehicles. Fourth, waterfront spaces – the edges of rivers, lakes, ponds, etc. Every respondent rated all four space types on the five design dimensions. This helps direct comparisons of each response across space types, with greater statistical power and reliability.

2.3 Instrument and data collection

The instrument was a structured online questionnaire developed in Google Forms, organised into six sections: (A) respondent profile (age, gender, occupation, city, visit frequency); (B) parks and green areas; (C) plazas and hardscaped; (D) neighbourhood streets; (E) waterfront spaces; and (F) overall preferences, including a forced ranking of the five dimensions and identification of the most preferred typology. The instrument used multiple-choice grids, single-select items and short open responses. Within each of the four typology sections (B–E), the five dimensions were each measured with three Likert items rated on a 1–5 scale, yielding 15 items per typology and 60 Likert rating items in total. Alongside these, the instrument comprised five respondent-profile questions, one preferred-typology question, a five-item dimension-ranking question, and five short open-ended questions (one per typology and one closing question), administered through multiple-choice grids, single-select items, and short open responses. The survey averaged 8–12 minutes to complete and was disseminated via WhatsApp groups, email lists, and academic networks targeting respondents aged 19–30 years across multiple Indian cities, with concentrated distribution in Jaipur.

2.4 Sample

A total of 90 valid responses were obtained. Because each respondent rated all four typologies, the analytical dataset contains 360 typology-level observations. The sample comprises 55 male and 35 female respondents; the largest age cohort is 19–22 yrs ($n = 46$, 51.1%), followed by 23–26 yrs ($n = 26$, 28.9%) and 27–30 yrs ($n = 18$, 20.0%). College/university students dominate the occupation profile ($n = 70$, 77.8%), with working professionals ($n = 17$, 18.9%) and other occupations ($n = 3$, 3.3%) forming smaller sub-groups. With respect to city distribution, 46 respondents are from Jaipur (51.1%) and 43 from other Indian cities (47.8%, including Kolkata, Ranchi, Delhi, Ahmedabad, Krishnanagar, Bengaluru, Chennai, Indore, Patna, and others); one respondent did not provide a clear city and was excluded from city-group analyses ($n = 89$ for that comparison). Sample composition is illustrated in Figure 2.

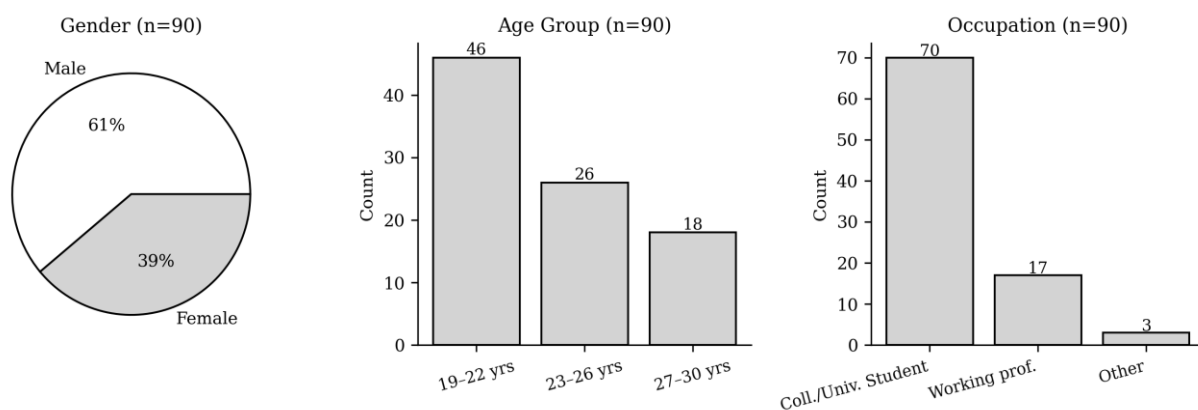


Figure 2. Sample composition by gender, age group, and occupation ($n = 90$; Developed by the Authors).

2.5 Analytical procedure

Data were exported from Google Sheets and cleaned using Python (pandas) and Microsoft Excel. Free-text city responses were standardised by stripping whitespace, correcting spelling variants (e.g., "Jaipjur"/"Jaipir" → "Jaipur"; "Ahemdabad" → "Ahmedabad"), merging metro variants ("New Delhi" → "Delhi"), and updating to current official names ("Bangalore" → "Bengaluru"). Descriptive statistics (means, standard deviations) were computed for each dimension–typology combination. Welch's independent-samples t-tests were used to compare means by gender and by city group (Jaipur vs. other Indian cities). One-way ANOVA was applied across age groups. The dimension-priority question was analysed by computing the average rank assigned to each dimension by all respondents, with lower averages indicating higher perceived priority. The Likert items showed acceptable internal coherence (Cronbach's $\alpha > 0.70$ for each dimension across the four typologies, computed at item level). All statistical analyses were two-tailed, with significance reported at $\alpha = 0.05$.

3. Results

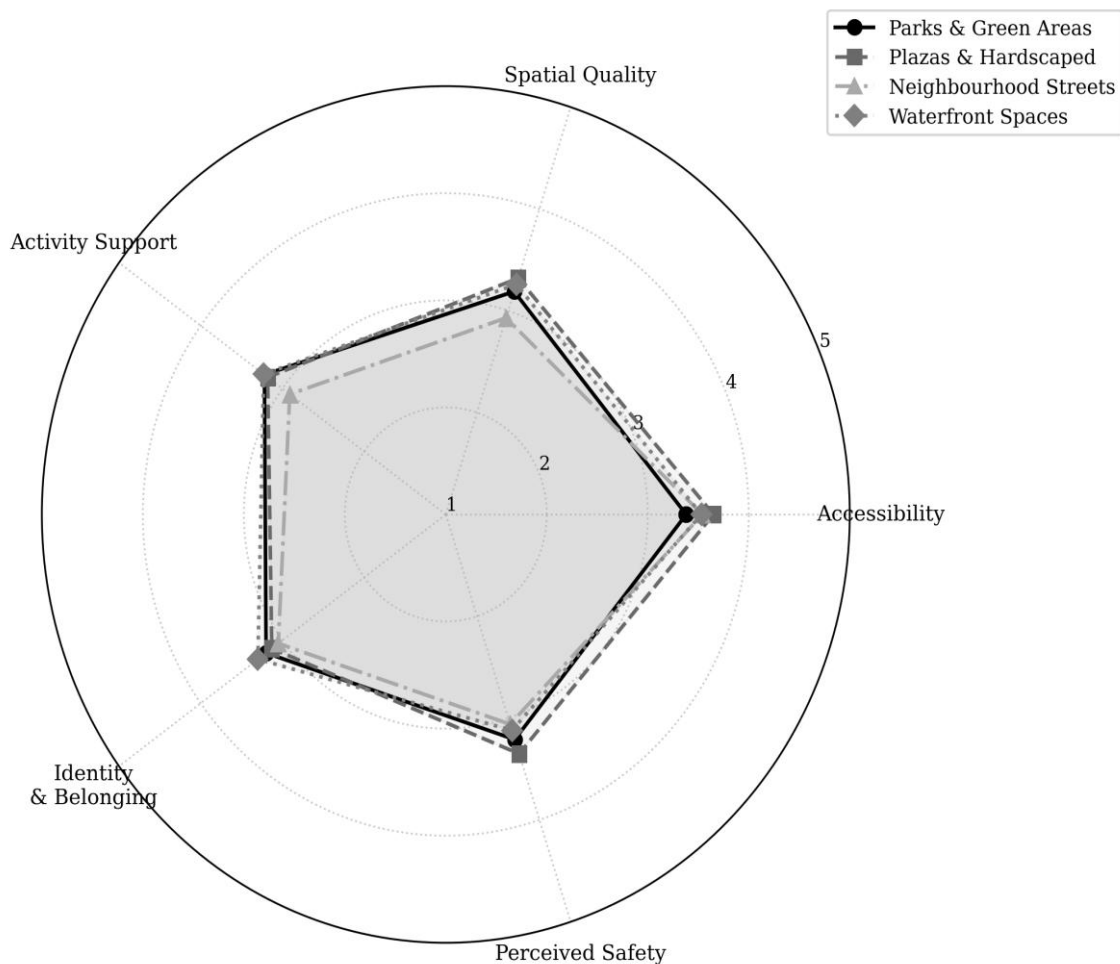
The results are organised in four parts: (i) aggregate perception by typology and dimension; (ii) sub-group analyses by gender and city group; (iii) youth-articulated priority ranking of design dimensions; and (iv) the relationship between perception and stated preference.

3.1 Mean perception scores by typology and dimension

Table 1 reports mean Likert scores (with standard deviations in parentheses) for each combination of typology and dimension. A central feature of the data is the tight clustering of overall typology means: plazas and hardscaped spaces registered the highest overall mean (3.33/5), followed closely by waterfront spaces (3.29), parks and green areas (3.24) and neighbourhood streets (3.10). The full range of overall means spans only 0.23 points, indicating that Indian youth perceive these typologies as broadly comparable in instrumental quality. Notably, accessibility was rated highest for plazas and hardscaped spaces ($M = 3.65$), reflecting their typically central, pedestrian-favored locations, while neighborhood streets scored lowest on spatial quality ($M = 2.93$) and activity support ($M = 2.91$). The cross-typology pattern is visualized in Figure 3.

Table 1: Mean (SD) perception scores by typology and dimension (n = 90; 1–5 Likert; Developed by the Authors).

Typology	Accessibility	Spatial Quality	Activity Support	Identity & Belonging	Perceived Safety	Overall
Parks & Green Areas	3.38 (0.99)	3.19 (1.03)	3.22 (0.99)	3.20 (1.04)	3.21 (0.96)	3.24
Plazas & Hardscaped	3.65 (0.94)	3.32 (0.97)	3.18 (0.91)	3.13 (0.97)	3.35 (1.02)	3.33
Neighbourhood Streets	3.54 (1.08)	2.93 (1.04)	2.91 (1.11)	3.05 (1.05)	3.06 (1.09)	3.10
Waterfront Spaces	3.53 (0.94)	3.26 (0.96)	3.23 (0.94)	3.30 (0.99)	3.12 (1.07)	3.29
Grand Mean	3.53	3.17	3.13	3.17	3.19	3.24

**Figure 3.** Spider chart of mean youth perception scores across five dimensions by typology.

The spider profile shows broadly overlapping polygons for the four typologies, in contrast to studies in other contexts where single typologies dominate the visual field. Plazas and hardscaped spaces extend furthest on accessibility and perceived safety, while waterfronts and parks present moderately balanced profiles. Neighbourhood streets describe the smallest polygon, with a distinctive skew—high on accessibility but low on spatial quality and activity support—reproducing the "accessible-but-uncomfortable" pattern observed in earlier Indian street-design critiques (Yadav & Kumari, 2024).

3.2 Gender comparison

A Welch's independent-samples t-test was performed for each dimension within each typology. Across the entire dataset, perceived safety produced the largest and most consistent gender gap. In neighbourhood streets, male respondents rated safety substantially higher than female respondents ($M_{\text{male}} = 3.00$; $M_{\text{female}} = 2.39$; $t = 7.18$, $p < 0.001$), and similar significant differences were observed for parks ($\Delta = 0.42$, $p < 0.001$), plazas ($\Delta = 0.40$, $p < 0.001$) and waterfronts ($\Delta = 0.38$, $p < 0.001$). Identity and belonging in parks was the only dimension where female respondents scored significantly higher than males ($M_{\text{female}} = 3.92$; $M_{\text{male}} = 3.74$; $p = 0.041$). Other dimensions did not reach significance. These results are summarised in Table 2 and visualised in Figure 4.

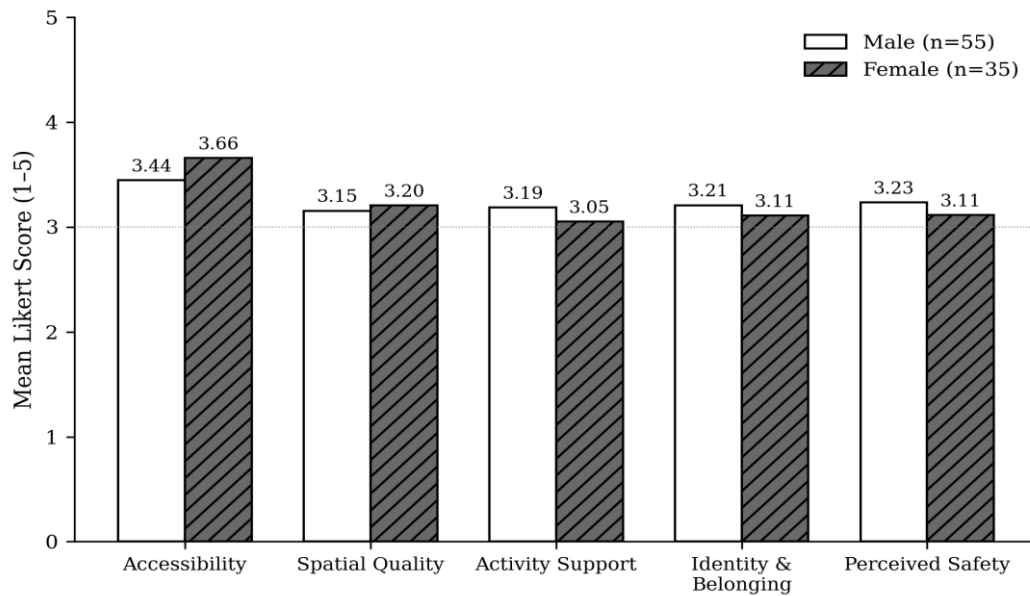


Figure 4. Gender comparison of mean Likert scores across the five dimensions, aggregated across typologies.

This null-result pattern departs from the dominant claim in Indian gender-and-public-space literature that male and female respondents differ sharply, particularly on perceived safety (Chen et al., 2024; Dubey et al., 2025). Two interpretations are plausible. First, the youth cohort sampled here is comparatively privileged with respect to mobility (predominantly college and university students with relatively secure travel patterns), which may attenuate gender effects observed in broader populations. Second, the questionnaire elicited generic ratings of each typology rather than scenario-specific evaluations (e.g., "this park after sunset"), which prior research suggests is where gender gaps are most pronounced. We return to this point in the discussion.

3.3 City-group comparison: Jaipur and other Indian cities

To examine whether perceptions varied geographically, respondents were grouped into Jaipur ($n = 46$) and other Indian cities ($n = 43$). Welch's t-tests were applied to overall typology means and to each dimension within each typology. None of the comparisons reached statistical significance at $\alpha = 0.05$. The overall typology means by city group are presented in Figure 5.

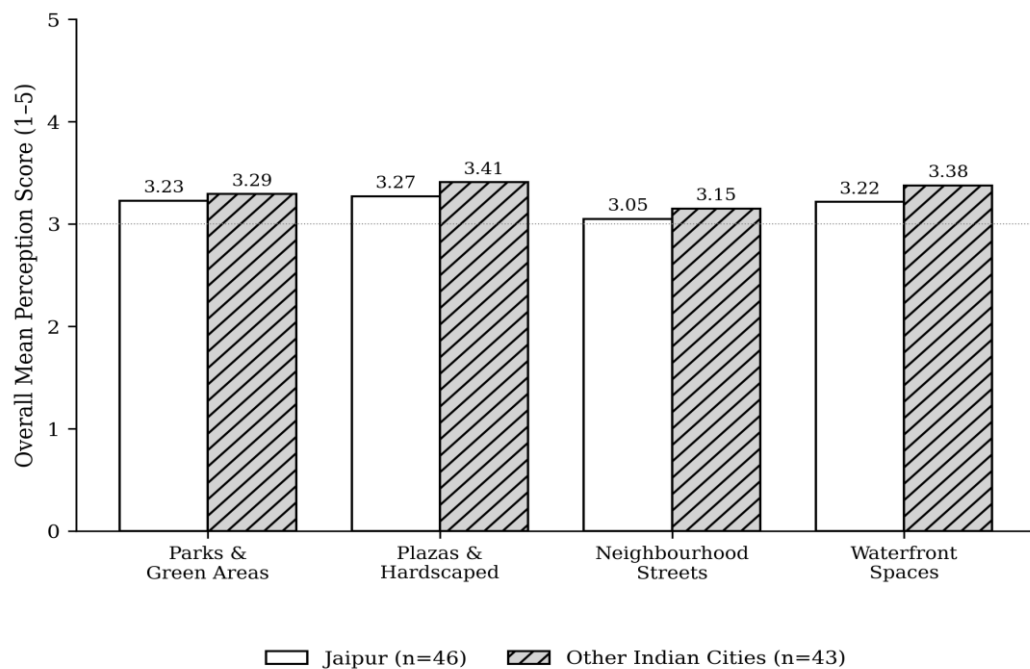


Figure 5. Mean overall perception score by typology across Jaipur and other Indian cities.

The city-group means closely track each other across all four typologies, with the largest single gap being 0.16 points (waterfront spaces: $J = 3.22$, $O = 3.38$; $p = 0.388$). This convergence is itself a substantive finding: it suggests that, for the typologies studied here, youth perception of public space is broadly stable across the Jaipur sample and the wider pan-

Indian sample, indicating that the design recommendations derived from this study are likely to be transferable across Indian urban settings rather than confined to a single city.

3.4 Youth-articulated priority ranking of dimensions

Respondents were asked to rank the five dimensions from 1 (most important) to 5 (least important) for a youth-friendly public realm. Because the survey instrument permitted respondents to assign equal ranks across dimensions, the resulting averages function more as relative-importance scores than as strict ordinal ranks; this is acknowledged as a methodological limitation. With that caveat, accessibility emerged as the highest-priority dimension (mean rank = 3.53), followed jointly by spatial quality and activity support (3.59 each), identity and belonging (3.64), and perceived safety (3.71). The very tight clustering of the five averages (range 0.18) again signals that, for this cohort, public-space quality is multidimensional and that no single dimension clearly dominates youth priorities (Figure 6).

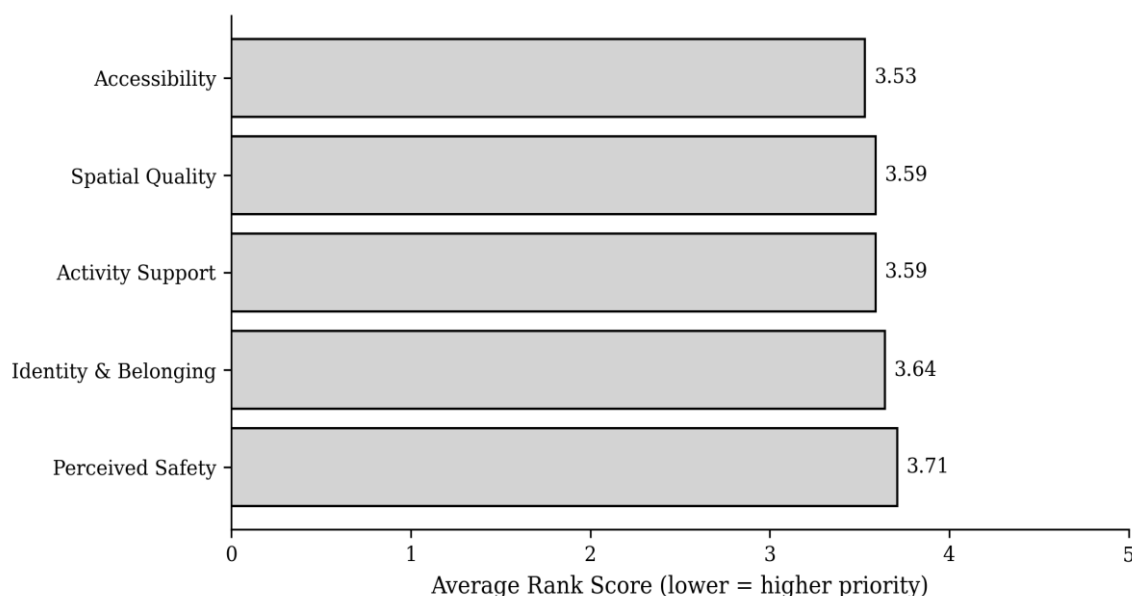


Figure 6. Average priority rank assigned to each design dimension by youth (lower = higher priority).

3.5 Preferred typology and the perception–preference disconnect

When asked to identify their single most preferred public space typology, 55.6% of respondents ($n = 50$) selected parks and green areas, followed by waterfront spaces (21.1%, $n = 19$), plazas and hardscaped spaces (15.6%, $n = 14$) and neighbourhood streets (7.8%, $n = 7$). The distribution is summarised in Figure 7.

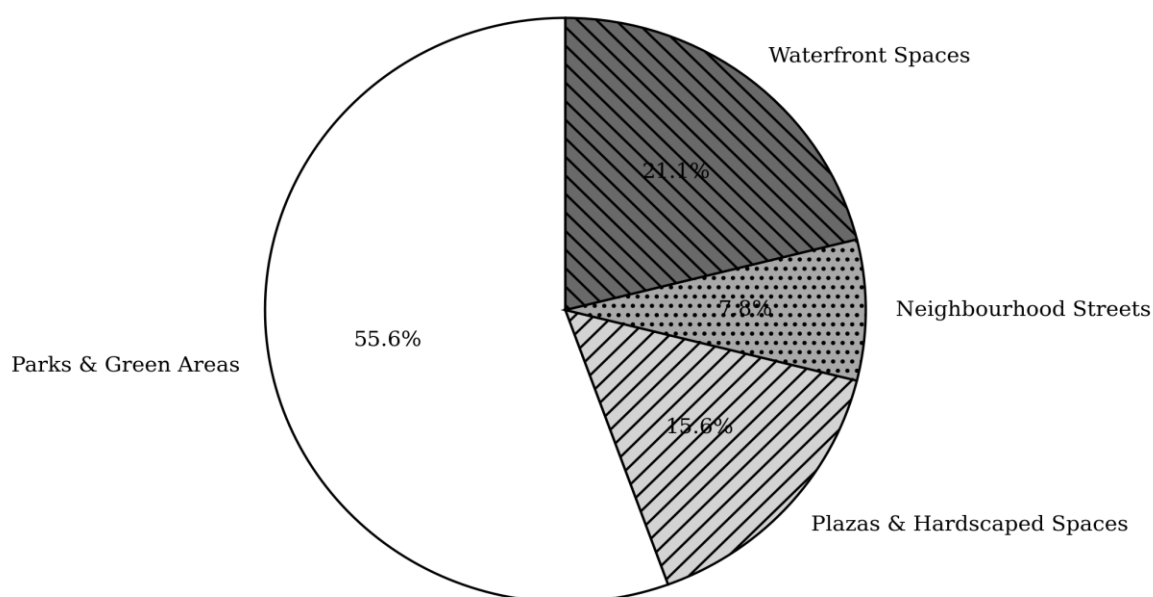


Figure 7. Preferred public space typology among Indian youth.

Contrasting these preference data with the mean perception scores from Section 3.1 reveals the study's most striking finding: a marked perception–preference disconnect (Figure 8). Parks scored only third highest on aggregate perception (3.24) yet captured a clear majority of preference (55.6%); plazas, by contrast, scored highest on perception (3.33) but

only 15.6% of respondents named them as their favourite. Streets are coherent across both metrics (lowest on perception, lowest on preference), and waterfronts occupy a middle position. The implication is that preferences for parks among Indian youth are not solely a function of perceived instrumental quality but reflect additional, perhaps affective or symbolic, considerations that are not fully captured by the five-dimensional rating instrument.

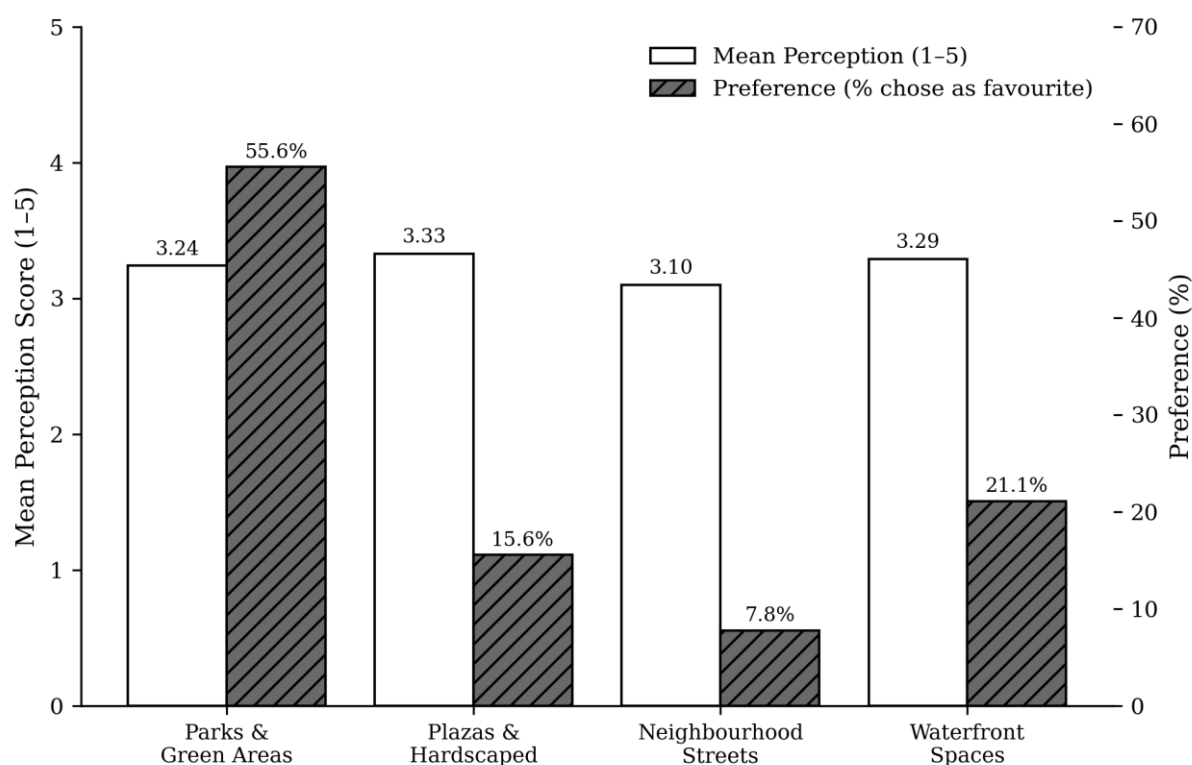


Figure 8. The perception–preference disconnect: mean perception score (left axis) versus stated preference (right axis) by typology.

4. Discussion

The findings invite a reconsideration of how youth-friendly public space is conceptualised and assessed. Three substantive issues warrant focused discussion: the perception–preference disconnect, the cross-city convergence of youth perception, and the persistence of the neighbourhood-street paradox. Limitations and directions for future research follow.

4.1 The perception–preference disconnect

The headline finding of this study—that parks score only third on aggregate perception yet are decisively preferred by 55.6% of youth respondents—has important conceptual and practical implications. On the conceptual side, it indicates that the standard five-dimensional instrument used here, while useful for unpacking the comparative perceptual profile of typologies, does not exhaust what makes a public space "preferred" by young people. The literature on place attachment and place identity offers a productive vocabulary for this residual: parks may carry relational, biographical and ecological meanings (childhood memory, kinship-with-trees, an "escape" from built density) that operate alongside, but not reducibly through, the instrumental dimensions assessed (Qi et al., 2024). On the practical side, the disconnect has direct design implications. Optimising plazas and waterfronts on the five rated dimensions—even very effectively—may not displace parks in youth preference; this argues for protecting parks as distinct, non-substitutable categories of provision rather than collapsing them into hybrid plaza-park or waterfront-park typologies. This interpretation is consistent with a substantial body of work on place attachment, which holds that emotional and symbolic bonds to particular settings can diverge from their measured instrumental quality and can themselves drive preference and repeat use (Paydar, 2024; Fernando, 2025). It also echoes evidence that place preference and perceived environmental quality, though related, are empirically distinct predictors of how people choose among open spaces (Shan et al., 2022). Waterfront spaces, which occupy an intermediate position in both perception and preference here, may likewise depend on dimensions—heritage association, landscape and cultural identity—that perception-based waterfront studies find decisive for user evaluation but that a five-dimensional instrument captures only partially (Zhu, 2025).

4.2 Cross-city convergence and its design implications

The absence of statistically significant differences between Jaipur and other Indian cities, across every typology and dimension tested, deserves note. With approximately equal sub-samples (Jaipur $n = 46$; other cities $n = 43$) and a within-subjects design, statistical power was reasonable; the null result is unlikely to be entirely an artefact of sample size. The substantive interpretation is that, for the typologies and dimensions studied, there is a recognisable pan-Indian youth public-space sensibility: similar in its tight clustering of perception, similar in its priority ranking of dimensions, and similar in its decisive preference for parks. For practitioners, this convergence is a practical advantage: design briefs,

design standards, and youth-engagement protocols developed in one Indian urban context have a reasonable likelihood of resonating with youth in another. This does not, of course, deny that local cultural and morphological specificities matter; rather, it suggests that a baseline of shared youth expectation can serve as common ground for site-specific design negotiation.

4.3 The neighborhood-street paradox persists

Despite the tight clustering of overall typology means, neighborhood streets stand out as the typology that consistently underperforms on the dimensions that youth most associate with a desirable public realm. Streets are perceived as accessible ($M = 3.54$), but score lowest on spatial quality ($M = 2.93$), activity support ($M = 2.91$), and on overall mean ($M = 3.10$). They are also the least preferred typology, with only 7.8% of respondents naming them their favourite. This duality—accessible but uncomfortable—has been previously theorized in the Indian context (Yadav & Kumari, 2024) and the present results reinforce it with cross-city, perception-and-preference evidence. Recovering streets as youth-supportive public space therefore requires not only retaining their already-strong accessibility, but a substantive redesign for spatial quality (shaded seating, continuous footpaths, traffic calming), activity (ground-floor uses, vendor integration, programmable edges), and identity (cultural reference points, youth-led signage and interventions).

4.4 Gender, safety, and the limits of generic perceptual instruments

A noteworthy departure from prior expectation is the absence of significant male-versus-female differences in this sample. Two interpretations are plausible and not mutually exclusive. First, the cohort sampled here—predominantly college and university students aged 19–26—is comparatively privileged with respect to mobility, peer support and exposure to designed public spaces, which may attenuate the gender gaps observed in broader Indian samples (Dubey et al., 2025). Second, the questionnaire used here elicited generic, time-unspecified ratings ("how would you rate this typology"), whereas the gendered safety literature consistently identifies night-time, isolated, and surveillance-deficient settings as the contexts where gender gaps emerge most sharply (Chen et al., 2024). A scenario-specific instrument—asking respondents to evaluate the same typology at, for example, 9 p.m. on a weekday rather than abstractly—would likely surface the gender variations that the present generic instrument did not capture. We treat this as a methodological lesson rather than a substantive refutation of the gendered-safety literature.

4.5 Youth priorities: the multidimensional plateau

The ranking exercise produced a remarkably flat priority profile, with the five dimensions clustered within 0.18 points of one another. Although the survey instrument permitted equal ranks—softening the ordinal interpretation—the convergence is consistent with the descriptive perception data, where overall typology means also cluster tightly. Rather than a single dimension dominating youth priorities, the data point to a multidimensional model of public-space quality (Mehta, 2014; Qi et al., 2024). The practical implication is that integrated design briefs, which simultaneously upgrade accessibility, quality, activity, identity, and safety, are more likely to satisfy youth users than briefs that optimize any single one. Importantly, accessibility heads this clustered ranking; while it is the dimension on which most typologies (especially plazas and streets) already perform well, it remains the dimension youth identify as most critical—an alignment that should not be taken for granted in places where access is contested or has eroded.

4.6 Limitations

Several limitations should be acknowledged. First, the sample is modest in size ($n = 90$) and skewed toward college/university students, which bounds the generalisability of the findings to that sub-cohort of Indian youth rather than the entire 19–30 population. Second, the 1.6:1 male-to-female ratio and the limited representation of working professionals and other occupations may have under-detected some sub-group differences. Third, the rating instrument elicited generic perceptions of each typology rather than scenario-specific judgements (time of day, accompaniment), which prior research identifies as relevant for safety and use patterns. Fourth, the priority-ranking question permitted equal ranks across dimensions, yielding rating-like rather than strict ordinal data; future iterations should enforce uniqueness. Fifth, the four typologies, while widely encountered, do not exhaust the Indian public-space repertoire (heritage cores, transit interchanges and informal markets warrant separate study). Finally, while the within-subjects design strengthens internal comparability, the perception–preference disconnect identified here motivates the development of complementary qualitative methods (walk-along interviews, photo-elicitation) to capture the affective and biographical dimensions that an instrumental rating instrument cannot reach.

5. Conclusions

This study contributes a typology-comparative, perception-and-preference-based evidence based on how Indian youth experience four central public space typologies along five urban-design dimensions. Drawing on responses from 90 youth respondents in Jaipur and other Indian cities, three central findings emerge. First, a marked perception–preference disconnect, while mean perception scores cluster tightly across typologies (3.10–3.33), 55.6% of respondents decisively prefer parks. Parks function as preferred destinations through affective and symbolic considerations not fully captured by instrumental quality ratings. Second, cross-city convergence: there are no statistically significant differences between Jaipur and other Indian cities on any dimension, suggesting a recognizable pan-Indian youth public-space sensibility and arguing for the transferability of design recommendations across Indian urban contexts. Third, the neighborhood-street paradox persists: streets are accessible but consistently underperform on quality, activity, and dwellability, and are the least preferred typology. Read against the three research questions that framed the study, the findings provide clear answers: youth perceive the four typologies as broadly comparable yet not interchangeable (RQ1); perceptual ratings are largely invariant across gender, age and city group, with perceived safety the principal exception (RQ2); and accessibility,

though already well provided, is articulated as the most critical dimension for a youth-friendly public realm (RQ3). In contributing to the literature, the study extends perception-based public-space assessment by pairing it with stated preference—exposing a disconnect that quality ratings alone would conceal (Paydar, 2024; Ramos-Vidal & de la Ossa, 2024)—and demonstrates the value of a typology-comparative, single-instrument design for generating transferable, youth-centred design guidance in the rapidly urbanizing Indian context.

For urban designers and policy-makers, the recommendations are concrete: (a) protect parks as distinct, non-substitutable categories of provision and resist their collapse into hybrid commercial-civic typologies, since youth preference for parks operates on registers (affective, biographical, ecological) that are not fully captured by instrumental design optimisation alone; (b) redesign neighbourhood streets through traffic calming, continuous footpaths, shaded seating, and ground-level activity to convert their accessibility into dwellability; (c) develop integrated design briefs that simultaneously upgrade accessibility, spatial quality, activity, identity and safety, in line with youth's clustered, multidimensional priority profile; and (d) develop scenario-specific safety instruments and complementary qualitative methods to capture the gender variations and affective preferences that generic rating instruments may underdetect.

In sum, attention to youth perception alongside stated preference across multiple typologies offers a richer, more actionable foundation for inclusive urban design in India than perception ratings alone. Future work should extend the framework to additional typologies (heritage cores, transit interchanges, informal markets), incorporate behavioral and ethnographic methods alongside questionnaires, and test the design recommendations through pilot interventions co-produced with young people themselves.

Acknowledgements

The authors thank the youth respondents who contributed their time and reflections. We also acknowledge the constructive feedback received during the ICCAUA 2026 review process.

Funding

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

Conflicts of Interest

The authors report no conflicts of interest.

Data Availability Statement

The aggregated and anonymized survey data supporting the findings of this study are available from the corresponding author on reasonable request. Personally identifying information was not collected.

Institutional Review Board Statement

This study involved a voluntary, anonymous online survey with no collection of personally identifiable information and posed minimal risk to participants, and the research was exempt from formal ethics review under the minimal-risk, non-identifiable survey research category. Respondents were provided with a brief introductory statement indicating the research purpose (understanding youth perception of urban public spaces), that responses were anonymous and voluntary, and could decline participation at any time. No formal written consent form was administered; completion and submission of the survey were treated as implicit consent.

CRedit Author Statement

Ujjal Halder: Conceptualisation, Methodology, Investigation, Data Curation, Formal Analysis, Visualisation, Writing — Original Draft. Harshit Sosan Lakra: Conceptualisation, Supervision, Writing — Review & Editing, Validation. Saptarshi Kolay: Methodology, Supervision, Writing — Review & Editing, Resources. All authors have read and approved the final manuscript.

Reference List

- Bills, T. S., Twumasi-Boakye, R., Broaddus, A., & Fishelson, J. (2022). Towards transit equity in Detroit: An assessment of micro-transit and its impact on employment accessibility. *Transportation Research Part D: Transport and Environment*, 109, 103341. <https://doi.org/10.1016/j.trd.2022.103341>
- Borini, M., & Campioli, S. (2024). The intangible values of placemaking in engaging youth for activating and shaping places. *The Journal of Public Space*, 9(2), 147–166. <https://doi.org/10.32891/jps.v9i2.1785>
- Chen, C., Luo, W., Li, H., Zhang, D., Kang, N., Yang, X., & Xia, Y. (2020). Impact of perception of green space for health promotion on willingness to use parks and actual use among young urban residents. *International Journal of Environmental Research and Public Health*, 17(15), 5560. <https://doi.org/10.3390/ijerph17155560>
- Chen, S., Lin, S., Yao, Y., & Zhou, X. (2024). Urban public space safety perception and the influence of the built environment from a female perspective: Combining street view data and deep learning. *Land*, 13(12), 2108. <https://doi.org/10.3390/land13122108>
- Cheng, Q. (2025). Research on improving urban park green space landscape quality based on public psychological perception: A comprehensive AHP-TOPSIS-POE evaluation of typical parks in Jinan City. *Frontiers in Psychology*, 16, 1418477. <https://doi.org/10.3389/fpsyg.2025.1418477>
- Dhasmana, P., Bansal, K., & Kaur, M. (2022). Assessing gender-inclusive user preferences: A case of urban public spaces in Chandigarh. *Proceedings of the International Conference on Innovation and Intelligence for Informatics, Computing, and Technologies (3ICT)*, 221–226. <https://doi.org/10.1109/3ICT56508.2022.9990637>

- Dubey, S., Bailey, A., & Lee, J. B. (2025). Women's perceived safety in public places and public transport: A narrative review of contributing factors and measurement methods. *Cities*, 156, 105534. <https://doi.org/10.1016/j.cities.2024.105534>
- Fernando, R. (2025). Enhancing place attachment through developing public open places: A cross-cultural study in Gold Coast, Australia. *Architecture*, 5(1), 10. <https://doi.org/10.3390/architecture5010010>
- Amen, M. A., Afara, A., & Muhy-Al-din, S. S. (2024). The Persuasibility of Globe Thermometer in Predicting Indoor Thermal Comfort Using Non-standard Globe Diameter: Row Houses of Semi-Arid Climates as Case Studies. *Civil Engineering and Architecture*, 12(1), 425–435. <https://doi.org/10.13189/cea.2024.120132>
- Amen, M. A., & Ali, F. A. (2025). Analyzing the impact of spatial centrality and courtyard diversity on tourist attractions in the walled city of Lefkoşa. *PLOS One*, 20(8), e0330956. <https://doi.org/10.1371/journal.pone.0330956>
- Gray, D., & Manning, R. (2022). Constructing the places of young people in public space: Conflict, belonging and identity. *British Journal of Social Psychology*, 61(4), 1400–1417. <https://doi.org/10.1111/bjso.12542>
- Jurkevičienė, J., & Budrytė, P. (2025). Youth perception of public spaces in the city. *Urban Science*, 9(2), 25. <https://doi.org/10.3390/urbansci9020025>
- Katapally, T. R., Patel, J., Khadilkar, A., & Bhawra, J. (2024). The critical need for child and youth perceptions of active living in India: Capturing context complexity in rural and urban regions. *PeerJ*, 12, e18350. <https://doi.org/10.7717/peerj.18350>
- Khan, H. R., Ahmed, M. A., & Dutta, M. (2025). Developing a methodology to assess pedestrian walkability in the city markets using multi-attribute decision-making techniques. *Transportation Research Record*. Advance online publication. <https://doi.org/10.1177/03611981241257506>
- Mehta, V. (2014). Evaluating public space. *Journal of Urban Design*, 19(1), 53–88. <https://doi.org/10.1080/13574809.2013.854698>
- Mollaesmaeili, M., Hakimian, P., & Lak, A. (2024). Perceived urban green spaces and youth mental health in the post-COVID-19 era. *Frontiers in Public Health*, 12, 1265682. <https://doi.org/10.3389/fpubh.2024.1265682>
- Mouratidis, K. (2024). Time to challenge the 15-minute city: Seven pitfalls for sustainability, equity, livability and spatial analysis. *Cities*, 153, 105274. <https://doi.org/10.1016/j.cities.2024.105274>
- Naghibi, M., Farrokhi, A., & Faizi, M. (2024). Small urban green spaces: Insights into perception, preference, and psychological well-being in a densely populated area of Tehran, Iran. *Environmental Health Insights*, 18. <https://doi.org/10.1177/11786302241248314>
- Patel, J., Ibrahim, S., Bhawra, J., Khadilkar, A., & Katapally, T. R. (2024). Association between yoga and related contextual factors with moderate-to-vigorous physical activity among children and youth aged 5 to 17 years across five Indian states. *PeerJ*, 12, e17369. <https://doi.org/10.7717/peerj.17369>
- Paydar, M. (2024). Place attachment and related aspects in the urban setting. *Urban Science*, 8(3), 135. <https://doi.org/10.3390/urbansci8030135>
- Qi, J., Mazumdar, S., & Vasconcelos, A. C. (2024). Understanding the relationship between urban public space and social cohesion: A systematic review. *International Journal of Community Well-Being*, 7(2), 155–212. <https://doi.org/10.1007/s42413-024-00204-5>
- Ramos-Vidal, I., & de la Ossa, E. D. (2024). A systematic review to determine the role of public space and urban design on sense of community. *International Social Science Journal*, 74(252), 633–655. <https://doi.org/10.1111/issj.12472>
- Shan, W., Xiu, C., & Meng, Y. (2022). How to design greenway on urban land utilization: Linking place preference, perceived health benefit, and environmental perception. *International Journal of Environmental Research and Public Health*, 19(20), 13640. <https://doi.org/10.3390/ijerph192013640>
- Yadav, A., & Kumari, R. (2024). Gender safety perspective in urban planning: The case of pedestrian mobility in Kanpur city. *Cities*, 147, 104845. <https://doi.org/10.1016/j.cities.2024.104845>
- Wang, J., Liu, N., Zou, J., Guo, Y., & Chen, H. (2023). The health perception of urban green spaces and its emotional impact on young adults: An empirical study from three cities in China. *Frontiers in Public Health*, 11, 1232216. <https://doi.org/10.3389/fpubh.2023.1232216>
- Zahn, A. (2025). Youth and publicness. *Architecture*, 5(1), 11. <https://doi.org/10.3390/architecture5010011>
- Zhu, R. (2025). A study on the perception evaluation of public spaces in urban historic waterfront areas based on AHP–Cloud modelling: The case of the Xiaoqinhuai Riverside Area in Yangzhou. *Land*, 14(12), 2402. <https://doi.org/10.3390/land14122402>