ASSESSING THE IMPACT OF URBAN DESIGN BUILT FORM ELEMENTS IN PEDESTRIAN SPACE FOR OPTIMUM USER COMFORT: REFERENCE TO BATTARAMULLA, SRI LANKA

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ABSTRACT

This research explores the influencing built form elements of pedestrian space on pedestrian comfort in public service precinct with reference to Battaramulla, Sri Lanka. The pedestrian space is critical in shaping pedestrian movement, engagement, and overall urban experience for city users. The study addresses the research question of how do urban design built form elements affect pedestrian space in terms of providing optimum user comfort, with specific reference to Battaramulla.

To answer this, the research employs the methodology involving field surveys, and ArcGIS based analysis. Field surveys are conducted to collect data on built form urban design elements such as land use, comfort levels, and building features within the study area. These are crucial for understanding how different built form elements of the pedestrian space influence pedestrian activities and finally for the pedestrian comfort, including walking, seating, standing, eating and shopping.

Subsequently, ArcGIS based analysis is utilized to evaluate the spatial relationships and impacts of these features on pedestrian comfort. This analytical approach allows for the integration of survey data with geographical information, enabling a comprehensive assessment of how built form elements in pedestrian space contribute to the overall effectiveness and appeal of pedestrian comfort.

The findings reveal that pedestrian spaces with well-designed built form elements and features significantly enhance pedestrian activity and satisfaction. Specifically, spaces that offer amenities, aesthetic appeal, and functional design elements promote more frequent and enjoyable pedestrian interactions. Conversely, poorly designed pedestrian spaces may discourage pedestrian activity and lead to lower engagement in public precincts. And there are discrepancies in between expected pedestrian behavioral patterns, densities and actual pedestrian comfort levels.

This research offers valuable insights for urban designers aiming to improve pedestrian experiences and foster vibrant urban environments. By highlighting the critical elements that influence pedestrian comfort, the study contributes to the development of more effective and appealing urban spaces in rapidly growing public precinct like Battaramulla.

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