Abstract

People's perceptions of safety are shaped by their surrounding environment. The behavior of the surroundings directly influences the activities of the city's residents. The purpose of the study is to examine the physical components of the built environment in urban settings and evaluate them in relation to two distinct localities of Guwahati City. According to investigations, the two localities—Uzan Bazar and Hengrabari—are among the safest and most dangerous in the city, respectively, are considered as study areas for the analysis section of the research. Taking into account the strengths and flaws noted from the case studies, urban design strategies are developed and, then, explained in context to the safe and unsafe localities, which validates their relevance, feasibility, and applicability in real-urban situation.

This study identifies five built components, fifteen indicators, and twenty-one evaluation criteria. Frequency of appearance, and expert opinion survey methods are used to identify and prioritise the mentioned components and indicators. The study areas are analysed with respect to each of the evaluation criteria and a comparative discussion is carried out to find out the physical status of the built environment. Data classification and a perception survey were helpful in understanding the sense of safety of people; formula-based computation method (eg. rated scoring of safety criteria) and their results' percentage distribution were helpful in the criteria-specific analysis; expert evaluation and digital content analysis are used in the analysis to obtain the score system. To support the overall analysis, urban design maps are created using ArcGIS, AutoCAD and Photoshop software showing the spatial condition of the case study areas. Additionally, in order to highlight the current shortcomings, the strategies are, also, investigated in both case studies using in-depth photographic analysis and on-ground data.