## World Academy of Science, Engineering and Technology International Journal of Architectural and Environmental Engineering Vol:14, No:12, 2020

## Study of Open Spaces in Urban Residential Clusters in India

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Abstract: From chowks to streets to verandahs to courtyards; residential open spaces are very significantly placed in traditional urban neighborhoods of India. At various levels of intersection, the open spaces with their attributes like juxtaposition with the built fabric, scale, climate sensitivity and response, multi-functionality, etc. reflect and respond to the patterns of human interactions. Also, these spaces tend to be quite well utilized. On the other hand, it is a common specter to see an imbalanced utilization of open spaces in newly/recently planned residential clusters. This is maybe due to lack of activity generators around or wrong locations or excess provisions or improper incorporation of aforementioned design attributes. These casual observations suggest the necessity for a systematic study of current residential open spaces. The exploratory study thus attempts to draw lessons through a structured inspection of residential open spaces to understand the effective environment as revealed through their use patterns. Here, residential open spaces are considered in a wider sense to incorporate all the un-built fabric around. These thus, include both use spaces and access space. For the study, open spaces in ten exemplary housing clusters/societies built during the last ten years across India are studied. A threefold inquiry is attempted in this direction. The first relates to identifying and determining the effects of various physical functions like space organization, size, hierarchy, thermal and optical comfort, etc. on the performance of residential open spaces. The second part sets out to understand socio-cultural variations in values, lifestyle, and beliefs which determine activity choices and behavioral preferences of users for respective residential open spaces. The third inquiry further observes the application of these research findings to the design process to derive meaningful and qualitative design advice. However, the study also emphasizes to develop a suitable framework of analysis and to carve out appropriate methods and approaches to probe into these aspects of the inquiry. Given this emphasis, a considerable portion of the research details out the conceptual framework for the study. This framework is supported by an in-depth search of available literature. The findings are worked out for design solutions which integrate the open space systems with the overall design process for residential clusters. The open spaces in residential areas present great complexities both in terms of their use patterns and determinants of their functional responses. The broad aim of the study is, therefore, to arrive at reconsideration of standards and qualitative parameters used by designers - on the basis of more substantial inquiry into the use patterns of open spaces in residential areas.

**Keywords:** open spaces, physical and social determinants, residential clusters, use patterns **Conference Title:** ICBAU 2020: International Conference on Building, Architecture and Urbanism

Conference Location: Dubai, United Arab Emirates

Conference Dates: December 17-18, 2020