

ENVIRONMENTAL PERFORATIONS, A LONGSTANDING URBAN STRATEGY

Muhammad Waqas and Muhammad Jawad

ABSTRACT

The intersecting human and natural topographical proceeding within any space and time sets the stage for upcoming buildings and infrastructure, in the form of physical environment that is technically referred to as context. This study revolves around building interventions within a physical urban context and highlights the necessity of environmental sensitivity. The study explores thorough extractions from predominant natural potentialities, for improved building performance and reviews environmental efficient methods. Long-standing practices adopted for making buildings respondent to existing physical settings are studied. The focus henceforth is solar sensitization with reference to solid void orientation and solid void proximity.

Spatial surveys and analyses of model building envelopes are carried out to decipher environmental characters and its handling mechanisms. The buildings selected for analyses (Alhambra Complex, Granada, Islamia College, Peshawar and Agricultural University, Peshawar) are of incredible stature, and demonstrate prime importance while considering a particular era and locale. The analyses extents are infusing of building blocks and open spaces, mass void ratios, solid void orientations and proximity level.

The study suggests measures for solar sensitization and brings forth an indicative framework, comprising techniques and methods to break down solids and voids for maximizing environmental performance. Some objective design alternatives are recommended for overall massing of solids and voids to allow optimum daylight, air change and inwards-outwards vistas within an urban context while maintaining the integrity of prevailing settings. Several geometric configurations are hypothesized to diversify interpretations of the idea of environmental perforation.

Keywords: Environmental Sensitivity, Optimum Daylight, Inward-Outwards vistas, Solid Void orientation, Solid Void proximity