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Spatial Integration at the Room-Level of 'Sequina' Slum Area in Alexandria, Egypt

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Abstract: The slum survey of 'Sequina' area in Alexandria details the building rooms of twenty-building samples according to the integral measure of space syntax. The essence of room organization sets the most integrative 'visitor' domain between the 'inhabitant' wings of less integrated 'parent' than the 'children' structure with visual ring of 'balcony' space. Despite the collective real relative asymmetry of 'pheno-type' aggregation, the relative asymmetry of individual layouts reveals 'geno-type' structure of spatial diversity. The multifunction of rooms optimizes the integral structure of graph and visibility merge, which contrasts with the deep tailing structure of distinctive social domains. The most integrative layout inverts the geno-type into freed rooms of shallow 'inhabitant' domain against the off-centered 'visitor' space, while the most segregated layout further restricts the pheno-type through isolated 'visitor' from 'inhabitant' domains across the 'staircase' public domain. The catalyst 'kitchen & living' spaces demonstrate multi-structural dimensions among the various social domains. The former ranges from most exposed central integrity to the most hidden 'motherhood' territories. The latter, however, mostly integrates at centrality or at the further ringy 'childern' domain. The study concludes social structure of spatial integrity for redevelopment, which is determined through the micro-level survey of rooms with integral dimensions.

Keywords: Alexandria, Sequina slum, spatial integration, space syntax

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