

- 6) El-Shazly, A., “Spatial Digraph at the Room-level of 'Sequina' Slum Area in Alexandria, Egypt,” *Proceedings of the Third International Conference on Advances in Applied Science and Environmental Technology, (IRED – New York, USA), Bangkok, 28-29 December 2015*, pp.34-38. ISBN: 978-1-63248-084-2

Geometrical digraph with cross-tabulation extends the social logic of space syntax in the pilot ‘Sequina’ slum area of Alexandria. The measure of universal distance at the micro level of room survey clarifies the social interface of the discrete spatial system. The essence of irreflexive network facilitates the ‘visitor’ penetration into the ‘inhabitant’ rooms. However, the backward direction inverts the relationship with the ‘inhabitant’ having more choice of interface in shortcuts than the traversable ‘visitor’ of then a deeper structure. The correlative networks condense at the second-rank to form concentric waves of social domains from the inmost ‘visitor’ exposure to the outmost ‘inhabitant’ privacy, with the double-face ring of in-between ‘living & kitchen’ of semi -domain. Further covariance of cross-tabulation defines negative relationship of ‘inhabitant’ zones, but changes to positive towards the central ‘visitor’. In this regard, the ‘bedrooms’ are set apart with alternative covariance of either ‘living’ or ‘kitchen’, which segregates into zones of ‘inhabitant’ sub-domains or integrates into an absolute ‘inhabitant’ when the ‘visitor’ is absent. Thus, the social logic of digraph compensates the accessible rings of space syntax with interactive spatial networks that changes direction according to the instant situation of social domains.