

Correlation of Residential Community Layout and Neighborhood Relationship: A Morphological Analysis of Tainan Using Space Syntax

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Abstract : Taiwan has formed diverse settlement patterns in different time and space backgrounds. Various socio-network links are created between individuals, families, communities, and societies, and different living cultures are also derived. But rapid urbanization and social structural change have caused the creation of densely-packed assembly housing complexes and made neighborhood community upward developed. This, among others, seemed to have affected neighborhood relationship and also created social problems. To understand the complex relations and socio-spatial structure of the community, it is important to use mixed methods. This research employs the theory of space syntax to analyze the layout and structural indicators of the selected communities in Tainan city. On the other hand, this research does the survey about residents' interactions and the sense of community by questionnaire of the selected communities. Then the mean values of the syntax measures from each community were correlated with the results of the questionnaire using a Pearson correlation to examine how elements in physical design affect the sense of community and neighborhood relationship. In Taiwan, most urban morphology research methods are qualitative study. This paper tries to use space syntax to find out the correlation between the community layout and the neighborhood relationship. The result of this study could be used in future studies or improve the quality of residential communities in Taiwan.

Keywords : community layout, neighborhood relationship, space syntax, mixed-method

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