

Dialectic Relationship between Urban Pattern Structural Methods and Construction Materials in Traditional Settlements

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Abstract : Identifying urban patterns of traditional settlements perfumed in various ways. One of them through the three-dimensional 'reading' of the urban web: the density of structures, the construction materials and the colors used. Objectives of this study are to paraphrase and understand the relation between the formation of the traditional settlements and the shape and structure of their structural method. In the beginning, the study considered the components of the historical neighborhood, which reflected the social and economical effects in the urban planning pattern. Then, by analyzing the main components of the old neighborhood which included: analysis of urban patterns & streets systems, analysis of traditional architectural elements and the construction materials and their usage. "Hamasa" Neighborhood in "Al Buraimi" Governorate is considered as one of the most important archaeological sites in the Sultanate of Oman. The vivid features of this archaeological site are the living witness to the genius of the Omani person and his unique architecture. "Hamasa" Neighborhood is also considered as the oldest human settlement at "Al Buraimi" Governorate. It used to be the gathering area for Arab and Omani tribes who are coming from other governorates of Oman. In this old settlement, local characters were created to meet the climate problems and the social, religious requirements of the life. Traditional buildings were built of materials that were available in the surround environment and within hand reach. The Historical component was containing four main separate neighborhoods. The morphological structure of "Hamasa" was characterized by a continuous and densely built-up pattern, featuring close interdependence between the spatial and functional pattern. The streets linked the plots, the marketplace and the open areas. Consequently, the traditional fabric had narrow streets with one- and two- storey houses. The material used in building facilities at "Hamasa" historical are from the traditionally used materials. These materials were cleverly used in building of local facilities. Most of these materials are locally made and formed, and used by the locals. "Hamasa" neighborhood is an example of analyzing the urban patterns and geometrical features. The old " Hamasa" retains the patterns of its old settlements. Urban patterns were defined by both forms and structure. The traditional architecture of "Hamasa" neighborhood has evolved as a direct result of its climatic conditions. The study figures out that the neighborhood characterized by the used construction materials, the scope of the residential structures and by the streets system. All formed the urban pattern of the settlement.

Keywords : urban pattern, construction materials, neighborhood, architectural elements, historical

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