

The Residential use in Medina After The Saudi Third Enlargement of the Prophet's Mosque :A Cartographic Model

Abstract

This research aims at studying the successive enlargements of the Prophet's mosque, with a focus on Saudi third enlargement and its effect on Medina land use change. The study highlights the city's urban growth stages in relation to these successive enlargements and the impact of central mosque in drawing the city administrative division and its urban structure. It demonstrates the impact of Saudi second enlargement on developing both land prices map and housing rental value map .

Mentoring the land uses that will be demolished due to the enlargements reflects the need to a good planning of new housing with precise criteria that takes residential criteria and population wishes into consideration, besides the activation of geographic information systems capabilities to build and development of a cartographic model helps in selecting the best sites for housing in the city.

The study proved that residential uses were the most affected uses due to the Saudi third enlargement, both the exclusive residential uses (63.30 hectares, 17.3% of the total enlargement area) and the investment housing (103.5 hectares by 28.02%).

The study introduces a distribution map of the appropriate sites for new housing in Medina divided into nine colored categories in accordance to the criteria of selecting the appropriate residential buildings sites. On the other hand, the study introduces an accurate identification of the most appropriate sites for new housing based on previous criteria in addition to people interests of residential building. "Al Oyon" comes as the first district which has the most optimum area for new hosing (10.6% of its total area) while "Om khalid" comes as the fewest district (0.10%).