

The Best Futurism Directions for Damascus Expansion by the Help of Geographic Information Systems (GIS) Technology

Dina Al-Dajani

Mohammed Yassar Abdin

Abstract

The research aims to define the best futurism directions for the architecture expansion of Damascus city through following-up the architecture growth of the city in different period in order to achieve the continuously architectural development set, and provide relieve, safe, the urban accommodation level for people and their spatial space. The study took place by the help of Geographic Information System (GIS) whereas the actual architecture for Damascus city was represented through geographic data bases, digital basis maps, and through dealing with the information related to the statistical, demographical, social and economical; that can support the architecture planning, save time and effort in carrying out development plans in the quickest averages and with the highest quality which reduce the waste of energies and resources. Geographic Information System (GIS) enabled us to find more than one scenario for the architecture expansion of Damascus city, and help us in choosing the optimal solution according to the restrictions and geometric organization conditions which were defined by us.

¹ For the paper in Arabic see pages (419-442).

² Department of Planning and Environment Faculty of Architecture Damascus University

³ Ass. Prof. Department of Planning and Environment Faculty of Architecture Damascus University

The conditions and standards which were followed in the study gave us three alternatives for the architecture expansion directions of Damascus city, on the shape of discontinuous areas. But, as the actual architecture planning for Damascus city suppose the existence of continuous architecture axis; we can not ignore the existence of the inhabited architectural agglomerations between these areas which was suggested by Geographic Information System (GIS). By comparing these three alternatives; we suggest expansion on the shape of continuous architectural axis stretch from the east north (Duma and Adra) towards the west south (Muadameieh, Jedaideht Artouz and nearness areas) whereas Sahnaia and nearness area might have an important demographic expansion although it's far from Damascus city, because it has a good reserve and architectural structure with low price comparing to Damascus city. Also, the random architecture expansion for Damascus city in 1940; causes Al-Ghotta corrosion which supposes to take in account incapacitation the growth toward Al-Ghotta agglomerations and activate other development axis, for fear that; the architectural strap expand erosion more from the Al-Ghotta lands. In conclusion, we emphasize on the necessity of thinking on the architecture planning techniques and dealing with it in a way that suits solutions which produced by the modern digital techniques especially; Geographic Information System (GIS) Technology.