Spatial Analysis of Multipurpose Uses in the City with Passive Defense Approach (Case Study: Miandoab Religious User)

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Extended Abstract

1. Introduction
According to United Nations forecasts, almost all of the world's population growth will take place in the urban areas, especially in the Third World Urban areas (Raphael & Dafna, 2006), and by 2030, roughly 60% of the world's population will live in urban areas (Gharakhlou & Hosseini, 2006). Due to the high volume of investment and the deployment of many facilities and economic instruments, and most importantly the large number of inhabitants, cities are always exposed to numerous threats and dangers. Whether these are natural threats, such as flood and earthquakes, or non-natural ones such as wars and terrorist attacks, etc., the only means is establishing defensive and security considerations and the adoption of necessary measures in urban plans using multifunctional spaces, which can play a significant role and have a significant impact on reducing the vulnerability of urban residents to threats. Therefore, this research has been carried out with the aim of studying and identifying the multi-purpose uses of religious practices (mosques and Husseinieh) in Miandoab city. With regard to the data and information available, it seeks to answer the following questions: How are religious uses (mosques, Husseinieh and rebellion) in the city of Miandoab distributed according to the principles of non-operating defense? And do all the residents of Miandoab have access to religious access (mosques and Husseinieh) in times of crisis and threats?

2. Methodology
This applied research is descriptive and analytical. Field data and documentation have been used to collect data. Also, for analyzing the data, the network analysis method of the GIS software was used to determine the accessibility of residents of each urban district to the facilities and the nearest neighbor index to determine the distribution of uses in the environment.

3. Results
The result of the analysis of data regarding the nearest neighbor approach was 1.058. This indicates the random distribution of this application in the city of Miandoab. The results of the network analysis also showed for a 10-minute walk, the whole city was not covered by religious applications, while within a 15-minute walk, the whole city was covered by this service. Also, the results of the Buffering command (according to the mean running speed of men which is 6 km/h, people can only walk 955 meters in 573 seconds to reach the shelter), all residents of the city have access to these applications in the shortest possible time. Finally, the results of the dispersion coefficient method in Miandoab was 5.5, which indicates

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inequality in the distribution of religious application among six city districts.

4. Conclusion

Cities and urban spaces are also mainly exposed to damage from military strikes and natural disasters, such as earthquake flood or landslides. Damage caused by these human and natural phenomena in residential areas is more than other urban environments. One of the most important protective programs (in this area) and in the area of urban civil engineering and construction is the provision of shelters that are considered as non-operational defense targets. Miandoab city is one of the plain towns in the southern part of Lake Urmia, which due to its natural location and position in the country's divisions, is exposed to many human and natural disasters. The findings of the research show that religious uses (as a multi-use shelter) in the city have not been systematically programmed. But they have been established by the land devoted to and financed by local people. And the residents of the city do not have full access to these uses within 10 minutes, and most residents of the city have no access to these applications. Also, by using a buffering technique in the GIS environment, it was also found that a normal human being had access to these uses fully on foot within 15-minute walk. The difference between the results of the network and buffer analysis method is in terms of the type of communication network. In the buffer method, without considering the type of communication path or barriers available for accessing these uses, the service range is determined, while in the network analysis, the estimations have been more accurate and according to the type of communication network and the speed of the calculation, and the results are more accurate than the buffer method. Considering these results, an important issue was also addressed, which is the capacity of these centers. With the mere access to these uses, it cannot be said that all residents of the city can easily benefit from this. According to the results of the study, the per capita religious density was found to be very high (5.50) in the six areas of the city, indicating the instability and inequality of the per capita level in urban areas. Therefore, in order to use the religious service in Miandoab as a multipurpose use (shelter), first the mosques are to be renovated, and second the capacity of this use should be considered with regard to the population in urban areas.

Key words: Passive defense, Religious land use, Network analysis, Miandoab

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