

Urban Planning and Design in Times of Rapid-moving Events in Jordan

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Experience of planning and urban design in Jordan is a distinguished experience. It adopts the two methods for planning; starting from the lowest levels up to strategic planning. The first way used to study the natural growth of the past. And afterward try to impose the past on the future; here, building plans depend on information. A second approach assumes that future has its own privacy, it may, or may not, begins from the past.

Jordan is in a region which is full of tension, surprises, and hastened events. Therefore, it is difficult for planners to approach extrapolation in planning; Since, planning in this case has depended on studying past. It is also difficult to approach conclusions, which depends on the theories and pilot-tests. Thus, planners and designers in a country like Jordan should be able to deal with all unexpected events.

The research aims to study the trends in urban growth in cities that subsist next to areas of tension. It touches social, political, physical sciences and economics. It tries to study trends in planning in the current reality of the Middle East, which is filled with tension and fast-moving events; therefore, the research approaches both inductive and deductive methods.

At the end, the paper explains the impact of the politics on sudden urban growth, demographic explosion and society as a whole. It tries to touch the impact of strategic planning on urban sprawl. It shows different problems facing urban planning in Jordan, and explains threats that obstacle proper planning. It highlights the importance of seizing opportunities, to propose suitable planning.

The paper assumes a group of research theses. It studies and explains them with the help of images, forms, maps, and charts. Subsequently, it presents several recommendations based on heightening advantages.

Key words: Urban Sprawl, Jordan Urban Planning, Syrian Refugee Camps, Al Mafrq, Planning.

Field of Research: Urban Planning and Design, Architecture Theories, Islamic Architecture.

1. Introduction:

Jordan is in the center of a conflict atmosphere. Its policies, history and all other reasons make it one of the hottest and tolerant countries. From here challenges for planners come into view; planners who, once they begin planning they face different surprises.

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There are no specialized researches related to the topic of this research. Since, the Syrian issue has been recent and still going on. Besides, the events in the region are moving fast and random.

On the other hand, there are several researches concerning the displacement of people and migration in general. And, other researches regarding Jordan as a receptor for displaced people since its beginning. An example is the migration of several Arab tribes coming from the Arabian Peninsula, Circassians and Chechens from Central Asia, displaced Palestinians, Lebanese, Iraqis and finally the Syrians.

This paper is composed of five parts, excluding the introduction and the recommendations. In the section following introduction, it discusses Syrian displacement and the difficulties that planning might face in times of up normal emigration. Since, planning in such circumstances is different from planning in normal circumstances.

In the next three parts the research starts addressing the negatives caused by indiscriminate population growth. It, after that, defines the different schools of thought in planning; and mentions selected planning trials that took place in Arab cities.

In the last two parts before conclusions, the paper discusses the problems facing urban planning in cities. It, also traces the impact of the Syrian displacement on the Jordanian city Al Mafrq. Further, it presents a number of details, figures, shapes and images, to show the impact of unplanned population growth on Jordan.

Finally, the paper concludes clear indications that show directions of urban growth of the city of Mafrq. Furthermore, it closes proposing tasks that planners and decision-makers should note or carry out, at different levels: national, regional or local.

2. Impact of Unplanned Growth on Planning:

Population increases lead to the growth of buildings around the city; thus, urban suburbs emerge and various building forms exist. Unplanned growth leads to reduce resources, especially in third world countries. This character is considered as one of the furthestmost significant features of cities in third world countries; where communities lose their identity due to the unplanned growth of cities (Hough, 1990).

Thus, after the mid twentieth century, the idea of Collective or Integral planning came out (Faludi, 1973). It concentrates on sharing resources with different people in different parts of the city (Banz, 1970).

Population growth in the 20th century cities brought a need to build new cities; the aim is to create cities that consider the population growth. And assume the city center as a collection of different parts (Gratz et al, 1998).

Strategy of the new cities imposes scientific method that includes detail in areas of housing, entertainment, services and movement patterns. It respects the human by understanding the social values and human behavior, without neglecting modern

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technology. Therefore, it is significant to understand the interaction between the built and social environment in cities (Banz, 1970). And that led to build neighborhoods based on understanding human behavior.

3. Schools of Thought in Urban Planning:

After studying trends and theories of urban design and planning, and after understanding the advantages, the researcher could divide the schools of thought concerning planning into two leading groups: Substitution group and amendment group.

The substitution group calls to leave the city, some intellectuals put intact ideas, such as Alberti, a Renaissance architect, who introduced the ideal city, and symbolizes it with strength and nobility. Pietro Cattaneo role in developing cities was based on geometric shapes, which led to the evolution of the theories of the ideal cities in European planning. Vincenz Scamozzi had a clear role in this thought through ideas of Robert Owen (Lynch, 1981). Thomas More concentrated on external forces, and insists that the authorities must have strong forms (Kostof, 1991).

Cities could not carry out schemes of idealists; nevertheless they warned of the growing threat to urban. Ebenezer Howard proposed the idea of garden city in 1898; his goal was to provide comfortable accommodations to meet population growth in cities. He aimed to provide access to the planned city (Howard, 1902).

The idea of "new towns" spread over Europe and North America. It solved housing problems; it achieved improved quality of suburbs, and connects the city to the countryside. It provided quality housing and appropriate jobs to lessen unemployment (Hall, 1992).

Frank Lloyd Wright preset the idea of "abandonment of urban". He declared the city is no longer stands as a place to live. He added, people must leave the city and depart to rural areas, to begin another life free of pollution. Since the countryside has less pollution than the city; what creates stability and comfortable feeling (Gallion et al, 1983).

When health conditions worsen in areas of housing, reports stressed the need for standards to improve urban life; here, the second group emerged: namely, Amendment, or change (Hall, 1992).

In the beginning of the nineteenth century, in 1812, John Nash planned Central London. He began his plan with the Regent Street. He concentrated on solving problems, neglecting urban forms. He focused on the aesthetics of urban spaces, but he did not address the problems of social groups (Bacon, 1976).

In the middle of the nineteenth century, George-Eugene Hauezman presented radical ideas to solve the problems in Paris. He was called as the destructive artist; for the reason that, his plans followed removal and replacement policy (Kostof, 1991); despite that his ideas influenced the formation of several cities later (Kostof, 1991).

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Regional planning appeared before the twentieth century; however, the beginning of the twentieth century showed the need to focus on planning that considers population growth. Colin Gordon developed the idea of "urban sprawl", a term that discussed relations between buildings, trees, nature and water. He called for inductive planning, which is based on the ideas of scientists and engineers (Broadbent, 1990).

4. Planning Studies in Arab World:

Experience of Morocco appeared in the city Chefchaouen; it stood an example of a deal with the city center. Tunisia has another example for special policies in Fas. In the city (Aleppo) studies developed modern laws and regulatory schemes to regulate traffic, and identify areas of latest construction and rehabilitation of old buildings. Examples, also, include developing the city Kuwait (Broadbent, 1990).

There are various other examples of cities in Arab countries, such as the city of Zabīd and Shibam in Yemen, and Trim in Hadramawt. Furthermore, the Jordanian planners identified various policies to solve problems in the cities of Madaba, Salt, Karak, Tafilah, Mafraq, Irbid, and Amman.

5. Problems Facing Urban and Regional Planning in Cities (Case Study: Mafraq City):

Cities in developing countries, including the Arab suffer a group of problems. The city of Mafraq and the Jordanian cities suffer more; because of their location near the Jordanian-Syrian border, which led to receiving the largest camps that have been built to receive the Syrian refugees. This added to city suffering which comes from both: the waves of the Syrian migrants, and the natural growth of local people. Some of these problems are:

1. Losing balance between the built and no built environment.
2. Reducing agricultural land, due to the random urban sprawl.
3. Unbalanced pattern of urban, majority of Jordan's population lives in cities, and the majority of them live in large cities: Amman, Zarqa and Irbid.
4. Existence of social problems caused by the rules.

Particularly, the city of Mafraq suffers from other problems, such as (Braissoulis, Helen 1997):

5. Overlapping land uses.
6. Environmental problems.
7. Traffic jams.
8. Urban waste.
9. Lack of interest in historic areas.
10. Neglecting rural areas while planning.
11. Weakening public services.

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6. Impact of Syrian Crises on Urban Sprawl in Jordan (Case Study: City of Mafraq):

Mafraq city is the center of the Governorate, which forms the second largest provinces of Jordan after Ma'an, and the second smallest province in population density. Its former name was Alfdin. It contains numerous archaeological zones. Its eastern desert is rich in groundwater. Also, it supplies the Kingdom with vegetable crops and livestock.



Figure 1: Pictures Show Location and Close up View of the Historical Site of Ancient Mafraq (Al Fdain)

Al Mafraq city is situated in the North-East of the Kingdom, bordered by Iraq, Saudi Arabia from East, Syria to the north; and Saudi Arabia to the South. Its area equal (26552) square kilometers, representing 29.6% of the total area of the country. Its population reaches approximately (287,000) people, with a density of (9.5) people by square kilometer.

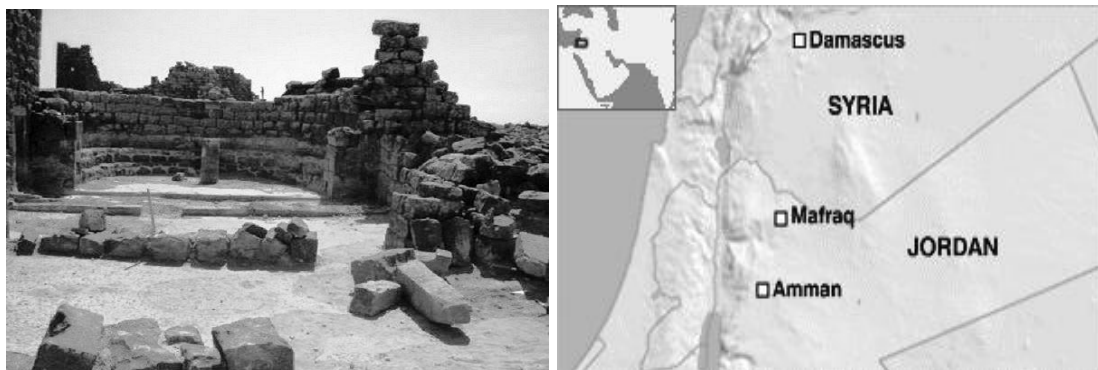


Figure 2 (Left): A Picture Showing One of the Oldest Churches, Found in Al Mafraq Suburbs

Figure 3 (Right): A Map Shows the Location of Al Mafraq Governorate on the Syrian Borders (Municipality of Greater Mafraq, 2014)

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Mafraq city is located at the crossroads of vital routes, linking Jordan with Iraq; it, also, links the Kingdom with Syria. The city stands as the major source of natural gas, which is used for producing electricity (Al Hesani, 1999).

Mafrq Governorate has an annual rainfall of around 200 mm, (Elias, & others, 1997). Despite that, it remains one of the best centers of agricultural production in Jordan. It fulfills most of the needs of the Kingdom from summer vegetables and fruit, as well as animal products. It exports fruit and various types of agricultural products to different countries (Harahasheh & Others, 2013).

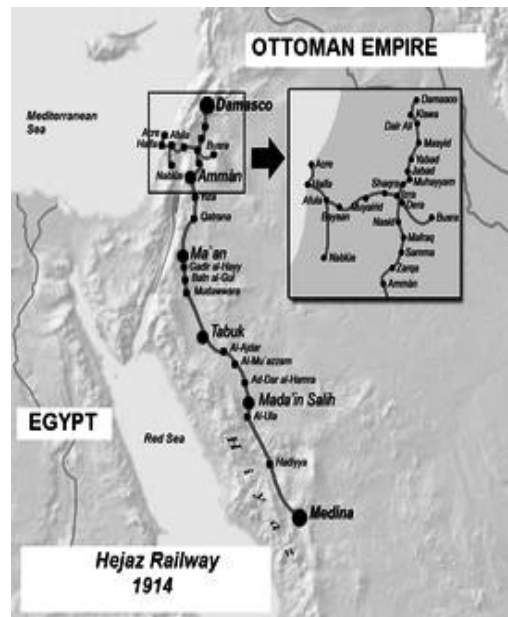


Figure 4 (Left): A Map Shows the Location of Al Mafraq City. And Extends of the Hejaz Railway Line

Figure 5 (Right): A Map Shows the Hejaz Railway Line Connecting Ottoman Empire with the Arabian Peninsula

In modern times Al Mafrq became significant because of its location, and for of the existence of Hejaz railway. The city has volcanic caves, where scientists and researchers found human skulls dating back to ancient history; they also found pottery relics dating to the Neolithic period (800-400 B.C), which confirms the deep-rooted human settlement in the region (Al Hesani, 1999).

Archaeologists found around 25 patterns representing the history of human settlement; it shows the language of communication between the peoples two thousand years ago (Al Hesani, 1999).

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There are various reasons that determined urban growth in Al Mafraq. The city gained its importance from being a junction. It stands as a chief station of Hejaz railway, which connected Turkey with the Arabian Peninsula. Its urban extension is influenced by military camps and the University of Al Al Bayt.

The impact of Syrian war had influenced Mafraq city, large numbers of displaced Syrian were forced to come to Jordan, lots of them came to the city of Mafraq; therefore, nature of the population in the region remains in change.

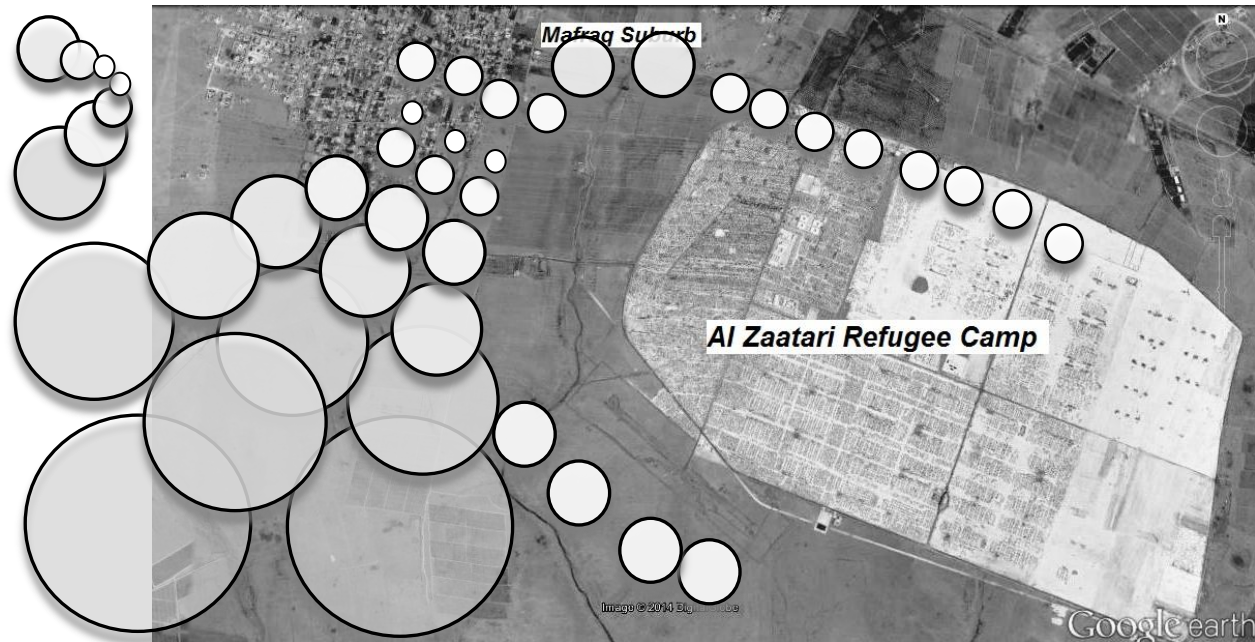


Figure 6: Shows an Aerial View of the Expected Urban Sprawl of Urban Communities beside Zaatari Camp

(It shows how University of Al Al-Bayt stopped urban extension of the city towards the east. Military locations stopped that extension towards the north. Thus, these circumstances forced the city to expand towards the west and the south.)

Zaatari camp: a camp for Syrian refugees who came to Jordan after July 2012; a camp situated 20 km east of Mafraq City. The number of refugees in the camp reached nearly 15,000 refugees on 27 August 2012; it includes around 10% of total Syrian refugees in Jordan. On 29 November 2012 the number of refugees was 45,000. On 19 May 2013 camp population reached 150 thousand refugees. The latest statistics of UNHCR show that the number of refugees in Al Zaatari camp is over 123 000 (Al Rai, 2014). However, the total number of Syrian refugees in Jordan is 600,000 refugees.

According to the latest statistics, 28700 inhabitants live in caravans, while 1,300 families still live in tents (<http://www.sbs.com>. 2014). Al Zaatari camp resulted in an additional city beside the city of Mafraq, what shows the camp will modify the urban fabric of the area.

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Figure 7: A Photo Shows Development of Zaatari Camp, from Tents on the Sand.

Figure 8: A Photo Shows the Development of Zaatari Camp, Settled and Paved Roads



Figure 9: An Aerial View Shows Urban Sprawl of the City of Al Mafrq toward Al Al-Bayt University and the Southeast

(It shows also the expected influence of Al Zaatari camp on urban sprawl of Al Mafrq.)

Conflicting statistics exist for the reason that several people come daily to the camp, and others move out of it. Therefore, there are no exact figures of the number of people living in this camp. Therefore, urban planners remain always in trouble.

7. Conclusions and Implications:

According to Evans, there are different planning trends of urbanization in the 21st century (Evans, 1995). These trends are applicable to different cities (Cherry, 1981).

However, the planning trends mentioned above cannot be implemented for cities like Mafrq. Therefore, planners need to focus on strategic planning, setting goals, needs, strengths, weaknesses, opportunities and threats. They have to define the economic role of the State, to learn the duties of institutions and individuals.

Besides, the planners must encourage the role of civil society institutions, to achieve the role of organizations of civil society. They have to consider environmental issues and sustainable development, to be able to achieve the comprehensive environmental planning.

Planners should adopt space, not only as a physical location, but as an integrated community, based on urban planning, and urban design. Finally, is to focus on the role of local administrations; and to adopt a concrete planning scheme for technical and scientific matters, which is politically committed to the noble values of Justice and equality.

On a domestic level, the researcher suggests that planners must consider the following trends:

Decision makers and planners ought to identify goals for the region, and consider its development. They have got to adopt plans based on the cultural and historical privacy in the area, and to use high tech at the same time. Thus, they must ensure subsidiary through real democracy and popular participation.

Further, decision makers must increase the number of urban planners in various institutions, and focus on their role, to be able to face the risks of potential planning.

Finally, planners ought to ask the administrators to take proper political decisions, to ensure necessary legislative assurance, for the sake of developing the Eastern Province of Mafrq, which is rich in water and agricultural land. Next, encourage business leaders to invest in the region.

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