

Functional and Social Performance of Public Spaces in

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Abstract

Research analyze the functional and social performance of the public space in residential areas in Madaba city, by studying the universal adopted and criteria in this field, according to that, research define a functional and social requirement, which could to contribute to reach a criteria for evaluating the functional and social efficiency of the public spaces in the city. Research continue with an review of the concept of residential urban spaces ,classification ,historical development of the functional role of urban spaces, the research then goes on to conduct an analytical study of the functional and social efficiency of one of blanks in a residential area in Madaba city (eng. amin Qutaish square) made a questionnaire for users of his spaces and residents of this area, to reach to the most important criteria that effect positively and negatively in performance of the space, and linking them to the most important international standards to reach to the best performance of the urban space in residential area and make it an environmental of human interaction ,social and culture security. Study concludes a set of results that define and describe the functional and social performance of the public spaces in the city of Madaba, finally study process some recommendations that could contribute to promote the strengths and treat weaknesses in the process of public spaces formation in the city of Madaba depending in these criteria.

Index terms—

1 Introduction

he spaces are formed as a result of the culture of society and its principles. It comes to meet the needs of all its members and to be suitable for their ambitions and desires. Consequently, these spaces have a great influence on the various members of the society in all categories of women, men, children and old people. Hence the role of urban design as a key tool in determining The needs of society, with a view to enhancing the functional and social functioning of these spaces.

Many of these urban spaces, especially in developing countries, suffer from serious deterioration in their urban and visual environments. This study aims at studying and analyzing the urban spaces in the residential areas by assessing the current situation and developing the appropriate proposals to create a sustainable integrated structure that maximizes users' benefit.

Author: e-mail: esraaalfalahat@yahoo.com a) Problem research

The problem of research lies in the loss of urban space as a medium to achieve human experience and as a space that reflects the interaction of man with his surroundings and his sense of belonging to the society in which he lives.

The importance of research and its objectives: Research Objectives: 1. The research aims to shed light on the reality of the formation of urban spaces based on their functional and social characteristics. 2. Determine the criteria for the functional and social efficiency of the spaces to be based on the assessment of the functional and social function of these spaces and identify the strengths and weaknesses to be addressed. 3. To reach a proposal for urban and planning solutions that contribute to the upgrading of the functional and social characteristics.

The importance of research is to improve the efficiency of the performance of urban spaces in residential areas, to avoid the huge gap between theory and practice, because these spaces did not achieve their role as a place to practice various activities, and gives the user a link to the place and society to which he belongs.

2 b) Research methods and materials

The research relies on the analytical method by monitoring and analyzing the global experiments in the formation of the general urban spaces and then studying the foundations and principles of this purpose, in order to define a set of criteria that must be adopted in the field and then to study the social and functional characteristics of this formation in the city of Madaba.

Hence it will be extrapolated set of processors and solutions, to raise the functional and social efficiency of these urban spaces in line with users' needs and requirements and in order to achieve maximum benefit from those spaces.

The study is divided into:

1. The concept of residential spaces. 2. Historical development of the functional role of the architectural spaces. 3. The role of urban spaces in the composition of the city. 4. Functional and social classification of urban spaces.

5. Social needs within the urban spaces. 6. Criteria for evaluating the social and functional efficiency of the urban spaces. 7. Results and discussion -a case study in the city of Madaba (Eng. Ahmed Qutaish square). 8. Conclusions and recommendations. 9. References.

3 c) Concept of urban space

The urban space is defined as the vacuum between the buildings in the various organized urban areas, which is determined through the facades of the buildings and the city's floor. The public activities of this city are limited to a variety of squares, parks, parks and interior spaces.

Krier (8) explains the urban space as an outer space consisting of only two elements, walls and earth, adding that the clarity of the geometric characteristics and the aesthetic values of the urban space helps to understand it. It expresses an architectural experience to contain people and interact with them and give them a sense of containment within them. The urban spaces are one of the most important elements of the urban structure of the cities. They represent the main areas of human communication, the practice of various human activities and the accompanying conditions of psychological and physical comfort for all segments of the society by providing a combination of activities and integrated activities(7): 1. Develop and organize people's relationship with the space and the ocean so that they affect each other. 2. Provide comfort to people and users of the space and meet their needs and connect them to their communities through the design of the space. 3. The physical environment available in the space itself affects the behavior and behavior of people because human behavior circumstantial syndrome is an integral part of the social, cultural and sensory content. 4. Linking the space with society where it is difficult to have a space without social content and vice versa. In the Arab-Islamic city, the main square and the main square were decorated with distinctive urban spaces, with squares and main streets, where celebrations were held at religious events and commercial markets figure (2).

Figure ??: The outline of the old city of Damascus shows the Umayyad Mosque and the main streets After the industrial revolution, several trends emerged to form public spaces as one of the main components of cities. We can classify these trends into three main types(1): 1. The trend that calls for the use of technology and elements of the movement and the giant structures and focuses on the physical form abstract without regard to the psychological needs of man, and reflects the trend le Corbusier through his proposal for the city of tomorrow, where the paths and spaces are devoid of human scale. 2. The functional trend, which revolves around the relations of elements of urban fabric with a set of characteristics, such as regularity and objectivity, and focuses on the elements of public utility and governance of forms through scientific criteria to achieve direct use. The most striking example of this trend is the linear city in the thought of Soria Mata. The organic trend, which is the human focus of attention in the planning and design work and this leads to identify the main characteristics of cities on the basis of the psychological and emotional impact of the population and transform the city into a system of permanent growth and change while preserving the environment and cultural heritage to it and in this context reflected the thought of parks and Environmental cities and sustainable cities. Each one was studying the relationship of the social characteristics of the community with the network of public spaces associated with the traffic network and the methods of preserving the environmental characteristics, beginning with attention to the quality of the coordination of the street and even the public areas of life. Which led to the emergence of the idea of gradual gradient and homogeneous groups and criteria for the division of land and requirements and structural intensities, which depends on the quality of ventilation and lighting and movement and to find areas of rebound front and back and side, which is the environmental spaces crisis Figure (3). activities and the decline of the role of urban spaces in the exercise of diverse activities and public life Banerjee believes that the balance of open spaces in addition to the unfair distribution, With the growing population of cities, especially in the heart of the major city in the last three decades, in spite of the addition of open spaces on the outskirts of US metropolitan (metropolitan) and the exploitation of empty spaces within the formation A system of urban parks, which today is one of the main urban resources of these cities and important tourist attractions.

In these stages, residential spaces were connected to the following values in order to be able to perform their role effectively according to the following: 1. Integration and social and cultural communication that forms the basis of urban society. 2. Provide recreational and mental and physical health. The role of urban spaces in the composition of the city:

The urban vacuum is treated as one of the main elements of the city's composition by (Moughtin) as follows (??? Shows the importance of urban spaces in the formation of the city through its ability to focus on the important parts of the city and show relations and ratios between the different parts of them, Lynch explained the ability of the urban spaces to form the city as representing the Nodes and the distribution of the locomotives (Nods), and the possibilities of supporting the spaces through the good organization of its surroundings and the good direction of the paths leading to the figure (6). Spaces can be classified into several categories according to several considerations, including what is related to the degree of function, including what is classified according to the privacy of the vacuum and uses it according to the form: 1. Types of spaces in terms of privacy and users of the space: the public space, semi-public space, semiprivate space, private space. 2. Types of vacancies in terms of functionality: i. Green areas and gardens figure (8).

ii. Spaces of public buildings figure (8).

Paths of movement and squares: Tracks are the most distinctive elements of the composition of the urban image of the place in the mind of man and can be paths to the pedestrian or mechanical movement figure (9). Figure10: Open spaces in a residential complex in Laiberg -Germany Types of spaces in terms of shape:

The shape of the space is influenced by the type and importance of its components and by the type of activity and movement in which it is practiced. The spaces can then be divided into: i. Static space: It is a horizontal space has a parallel ratio, which tends to square or circle, and suggests calm and stability, and emphasizes the social relationship and uses public squares, and the main residential areas.

ii. Dynamic space: A linear space that extends the sight to the point of vanishing perspective suggests motion, and the eye is always directed to a specific goal and is used in commercial corridors, roads, streets and spaces whose main functions are movement, whether on a large scale or in its small form. 1. Spaces are classified according to their importance to:

i. Main space: It is the basic space consisting of the parameters of the main space of the floor and the edges of the buildings surrounding the space and the sky as a ceiling and the contents of the space of the elements of the coordination of the site, a large area and its distinctive form, and controls the main function and contains within it several secondary spaces.

ii. Secondary space: a human-scale space created by dividing the main space with elements such as small and large trees and low-rise curtain walls, or changing the levels of the earth itself, and creating functions that follow the needs of human beings commensurate with its size.

iii. transitional space: It is a specific space in which the concept of the transition from public spaces to the spaces of private or semi-private or vice versa and these spaces from the arrival of man to the place, whatever the functional role of this place.

4 types of blanks in terms of isolation:

Spaces are related to the surrounding blocks and paths of movement and are classified into the following: i. Closed space: a space surrounded by buildings from all sides and separated organically from the paths of movement and is supposed to gather around a homogeneous group of the population.

ii. connected space: a space connected to another space or a network of consecutive spaces connected and connected to the paths of the continuous but the organic joints of the mechanical paths of automatic movement.

iii. Open space: It is the space directly through one of the ribs on the mechanical movement paths and movement of the main sight.

The social classification of the urban spaces depends on the hierarchical principle, ranging from public spaces (of the city) to semi-public spaces (for a specific residential area) and semi-special spaces (belonging to a group of dwellings) to end with the special spaces (within the dwelling) The responsibility for each population space, which contributes to the development of spontaneous relations among the population. This classification is based on the principle of privacy which stems from the Arab-Islamic concepts in the architectural and architectural composition, which emphasizes the formation of the space of the residential unit (the Arab House) and the creation of the semiprivate space of the residential group (traditional Arabic warm). The passage of strangers through the series of spaces Graduates feel they are going to a special place. These spaces serve as filters through which strangers can be monitored, identified and intercepted in the event of any suspicious activities or actions.

Based on these principles emerged the need to achieve the hierarchy of urban spaces, which has become one of the conditions for the formation of the correct physical environment that meet the human needs in the achievement of social interaction and the strengthening of the sense of belonging, where studies confirmed that the formation of the disassembled and the spread of urban spaces is not specific shape and function leads to the formation of an urban environment It is socially cold and contributes to keeping people isolated from the social environment and sometimes unsafe and helps to spread crime and violence. We conclude that there is a link between the absence of a hierarchy of urban spaces in the city and a more moderate Crime The concept of security and security within the residential environment is closely related to this hierarchy.

Social needs within the urban spaces: The social needs within the urban spaces stem from the culture and traditions of the society. Therefore, they differ in the general framework from one region to the other according to the different cultures and civilizations, where the culture of society is the main engine of the choices resulting from its members. Based on these principles, the society determines its way of interacting with the vacuum and its functional needs within it. In 2001, Owson noted that the laws developed by society to regulate space use

reflect its culture and basic needs.¹⁰ Both dear and wolch have suggested that social relationships can be created by space, And thus urban designers influence the pattern of human activity and social life through the formation of the urban environment. (Lynch) identified five main points that must be met in the urban environment to ensure its success⁽¹²⁾:

1. Vitality: a degree that corresponds to the shape of the place with the needs of human beings and functional.
2. Sense: the ability of users to sense the place and how to organize it within the concept of time and space.
3. Relevance: It relates to the appropriateness of the form, its capacity and its compatibility with user behavior.

4. Access: It relates to the ability to access the activities, services, sources and information available at the site.
5. Control: the ability of the users of the place to control their movement in access to the place and activities.

It should be noted that there are five points of common humanitarian needs among the different communities(??0 Effective link: The highest degree of interaction with the ocean, which includes direct communication with people in it in various forms where meeting with friends and strangers, and to talk and participate in activities and events. Although some people find comfort and satisfaction in observing others, others are willing to communicate directly, and the quality of the urban spaces is evaluated by providing opportunities for interaction with the ocean in its various degrees figure (15). 1. The clarity of the location and ease of access and ease of access to it in terms of its links to the main traffic arteries and openness to the adjacent urban spaces, which will ensure users control their movement in access to the site and its effectiveness. 2. The vacuum should be suitable for the use of people and the provision of the conditions of comfort to them, including the inclusion of the elements of the appropriate physical brushes and elements of the coordination of the site to the appropriate standards that allow people to interact with them in addition to various entertainment and services. 3. To provide aesthetic characteristics, richness and diversity, taking into account the technical aspects of studying the elements of the vacuum and launching creative initiatives in the engineering design of its various details, thus enhancing the element of exploration and eliminating the sense of monotony and boredom and thus supporting the role of vacuum as an attraction and attraction for people and their activities. 4. Provide a sense of safety and security for the users of the vacuum in terms of giving a sense of control of the place and control the movement of entry and exit through clear and specific points, in addition to ensuring protection from the movement of different mechanisms, which contribute to achieve the condition of relaxation as an advanced level of rest of the body and mind. 5. Enhancing the human belonging to the place and meeting the emotional aspects of the users in the area of linking the details of the vacuum and its composition with the culture and history of the community, which contributes to achieving effective and ineffective association with vacuum. 6. To meet the needs of the various social, cultural and commercial services of different social groups in addition to providing suitable spaces for the establishment of various events and activities for different ages and people with special needs and without any conflict between them, thus enhancing the best conditions of engagement and interaction with the ocean. Urban Environment. 7. The availability of all environmental conditions that protect the protection against negative weather conditions (extreme solar radiation, strong and undesirable wind, heavy rainfall ...) in addition to protection against pollution in various forms, which reflects positively on the conditions of relaxation and relaxation provided by the vacuum. 8. Ensuring the economic efficiency of the various components and components of the vacuum in terms of selection of materials and treatments of sustainability with great durability and ease of maintenance, taking into account the richness, diversity, consistency and harmony among them, contributing to the best conditions and convenience for users.

II.

5 Results And Discussion

Applied Case Study: Eng. Ahmed Qutaish Square (Jordan / Madaba) .. Due to the lack of the city of Madaba for urban spaces dedicated to the activities of the population mainly and can be applied to the evaluation criteria easily, and because squares are similar in that most of them do not meet the activities of the main population in terms of spaces or traffic yards has been adopted yard Ahmed Qutaish as an applied case because it represents one of the squares Which has been renovated , Which is one of the most important points linking the residential neighborhoods in addition to it is a major link between the area of Al-Faisaliah and the area of rhetoric, making it a center of polarization and gathering of the population and visitors as it is heading towards the road to Mount Nebo and the Dead Sea. The importance of the arena through the development of a range of functional events in its surroundings to include the theater and center Zaha cultural playground and games for children, a library and a garden.

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Analysis of the Engineer Ahmed Qutaish square according to the approved social and social criteria:

1. The advantage of clarity and ease of vision is available in the space as well as accessibility, there is a link between the urban space and residential areas adjacent to it, they achieve the requirement of control for users to access the site, which reflects positively on the efficiency of the space and activate it.
2. The space was prepared and prepared for use by the people effectively, but did not take into account the details of all the physical

brushes and elements of the coordination of the site in accordance with the needs of users of this space, including the elements of sitting and rest protected and areas of assembly and the establishment of activities and events are different enough Not to achieve the condition of rest and relaxation as well as low level of appropriateness and sensitivity required within the built environment. 3. This space does not contain any clear design ideas and reflect the touches of artistic and aesthetic excellence has come the design traditionally does not achieve the element of exploration and connectivity to users within the spaces as well as the weakness of the level of sense. 4. The protection against weather conditions requires a number of architectural and urban treatments of an environmental nature, and requires a special study of the elements of the coordination of the site in order to take advantage of them in securing protection from severe solar radiation and undesirable wind in addition to securing the protection from unwanted rain showers through To study the treatments that are required to achieve this, while ensuring the effective and rapid drainage of this water. There is also a clear absence of environmental treatments in addition to the absence of the concept of protection from audio and air pollution, which is concentrated in the vicinity of the space resulting from the movement of heavy vehicles to the Dead Sea, which negatively affects the conditions of rest and relaxation in the space. 5. The study of the elements and details of the emptiness of horizontal and vertical surfaces and the elements of coordination of the site and urban mattresses as well as all the architectural and architectural details of the space, does not clearly reflect the culture and history of the community. Also, the absence of clear architectural character of the space and specific to the surrounding buildings does not help to strengthen the belonging to the place and in the end These details do not contribute to satisfying the emotional aspects of users, which is reflected negatively on their connection to space. 6. The materials used in the study of the elements of coordination of the site within the space and in its surroundings are characterized by the general ease of maintenance and durability, it is considered a good economic efficiency, but it lacks richness and diversity, which affects the general evaluation of the space and its relationship to the user, The space is very important and effective. 7. This space needs to expand and include a range of events that must suit the needs of users in terms of type and placed, and it should be noted here that the space does not include any treatments related to people with special needs and this affects the provision of conditions of vitality and suitability in the 1. The studied space, like most of the main urban spaces, suffers from a large deficit in securing the elements of access, control and convenience, as well as the obvious weakness in achieving the conditions of rest, relaxation and association, leading to a low level of functional and social efficiency of these spaces.

2. The studied space and similar spaces suffer from a clear deficit in the field of services necessary to meet the needs of users, both in terms of the quality of services or places to be placed and this reflects negatively on the achievement of the conditions of correlation as well as the elements of vitality and suitability and thus lead to low level of functional and social efficiency of the space.

3. The weakness of the formation of the space and its surroundings in conjunction with the absence of architectural treatments that can contribute to the upgrading of artistic, aesthetic and visual characteristics. In addition to the absence of the physical and architectural character of the local, which wants to lose the space of the distinctive identity and weaken the belonging of users and the low level of social efficiency through the inability to achieve Sense, condition of engagement and exploration. 4. The urban spaces of the city, including the studied space, are characterized by the absence of environmental treatments that provide suitable conditions for the assembly of people, which leads to a low level of functional and social efficiency, which reduced the frequency of the beneficiaries of these spaces.

III.

7 Conclusions

5. Absence of a clear system of urban spaces that belong to this space and linked with it within a clear structure and deliberate at the level of the city and characterized by gradualism and interdependence and diversity of career, which would like to lower degrees of comfort and safety within these spaces. 6. Absence of the principles and foundations governing the study of spaces and squares officially approved by the concerned authorities, which meet the requirements and criteria to meet the requirements and functional and social requirements to allow the adoption of solutions suffer from a major imbalance in these aspects. One of the most important aspects of this imbalance is dealing with the squares and spaces as a road contract whose task is to regulate the movement of cars in its surroundings only and have no clear role in meeting the needs of the movement and the gathering of sight.

IV.

8 Recommendations

1. Reconsidering the spatial configuration in the preparation of the detailed organizational plans in the framework of developing and updating the organizational chart of the city, in addition to starting the modeling of the existing urban spaces and rehabilitating them in order to achieve the hierarchy of the vacuum formation in order to provide all the requirements of safety and comfort required within the urban environment. 2. Reviewing the foundations and standards of the environmental treatments of these spaces and the related urban fabric so that they can

contribute to the improvement of the level of comfort and relaxation, and the realization of the requirements of the vital fit, which enhances the social and functional efficiency of these spaces.

9 The Ministry of Housing and Urban Development in

Jordan shall undertake the following:

- i. Establishing the principles and foundations regulating the study of spaces and squares that define the requirements, standards and the crisis to improve the performance of the artificial and functional spaces of these spaces and their adoption by the responsible authorities as binding bases for all the studies conducted in this field.
 - ii. Put all the requirements and standards binding to study squares and public spaces, which contribute to the upgrading of the artistic and aesthetic and visual characteristics, so as to enhance the elements of excellence and attraction and give the personality and identity distinctive and thus enhance the sense of belonging to the urban environment and supports the elements of association and sense and contribute to raise the social and professional efficiency of these spaces.
4. Emphasis on taking into account the social dimensions in the development of urban plans and work to take into account the dimensions and humanitarian standards and help to strengthen social ties within the residential communities.
5. The importance of reviewing the current planning trends commensurate with the privacy of our Arab societies, with the need to find and develop creative formulations to achieve the twins between our cultural and social characteristics and requirements and lifestyles.
6. The urban environment should be considered as a window to understand the culture and its relation to the environment. Therefore, the design process should be done and the residential spaces should be connected to the urban spaces.
7. The process of studying the design of the urban spaces based on the views of the users and their

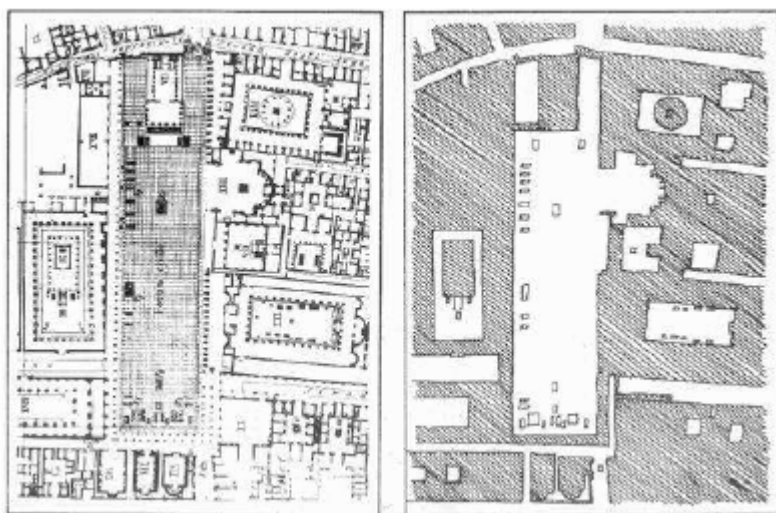


Figure 1:

¹Year 2017 © 2017 Global Journals Inc. (US)

²Functional and Social Performance of Public Spaces in Residential Areas in Madaba City.. © 2017 Global Journals Inc. (US)

³Year 2017 © 2017 Global Journals Inc. (US) Spaces of external pavements or free spaces between buildings:

⁴Year 2017

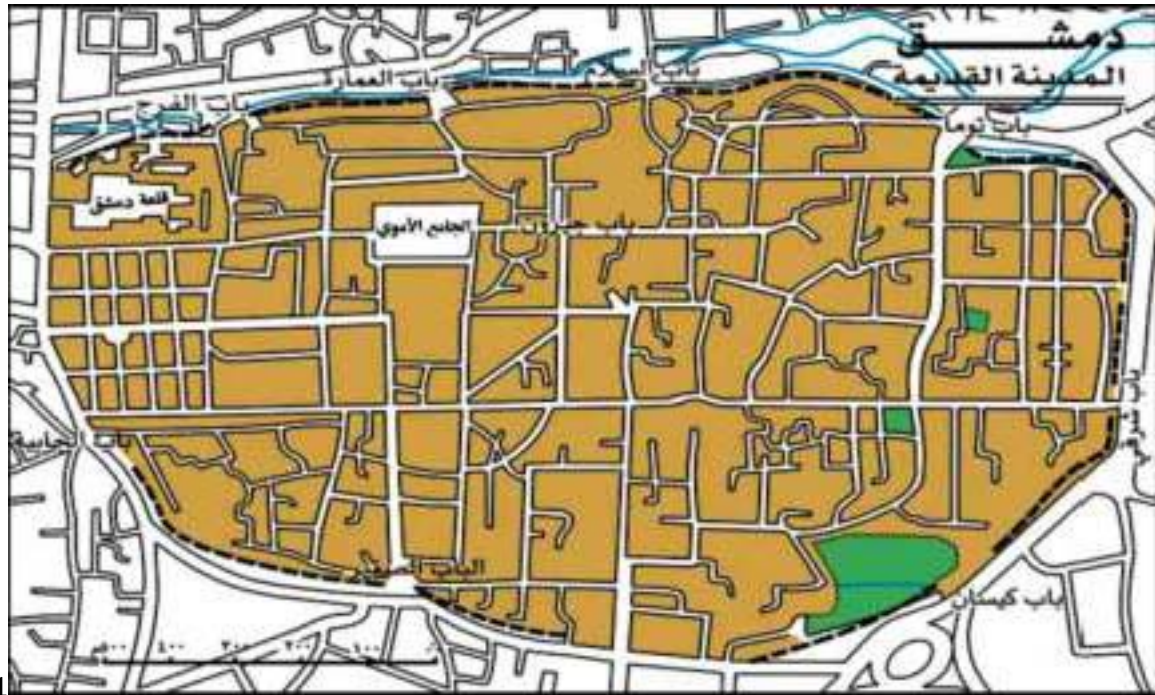


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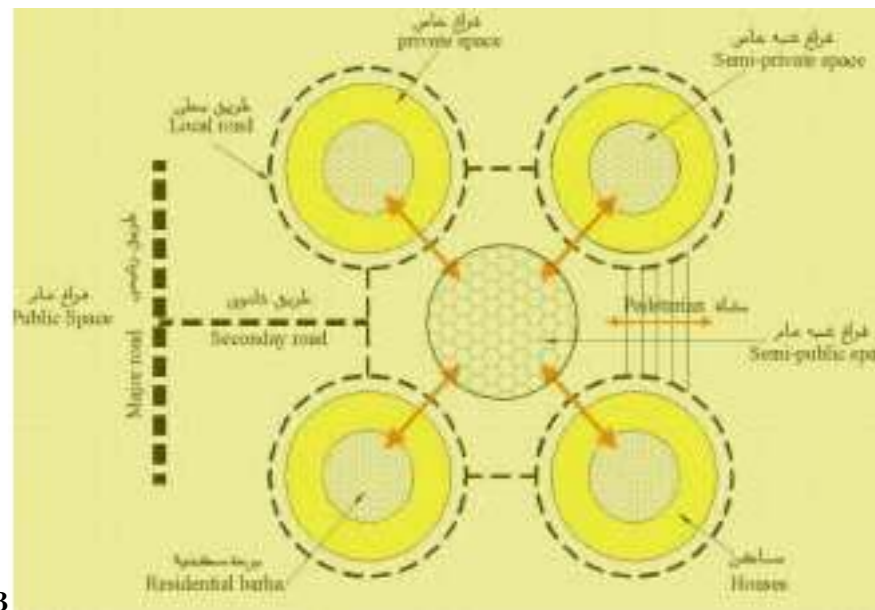


Figure 3: Figure 3 :



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Figure 4: 3 .



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Figure 5:): 1 .



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Figure 6: Figure 4 :



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Figure 7: Figure 6 :



Figure 8: Figure 7 :



Figure 9: Figure 9 :



Figure 10:



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Figure 11: Figure 11 :



Figure 12: Figure 12 :



Figure 13: Figure 13 :

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Figure 14: Figure 14 :

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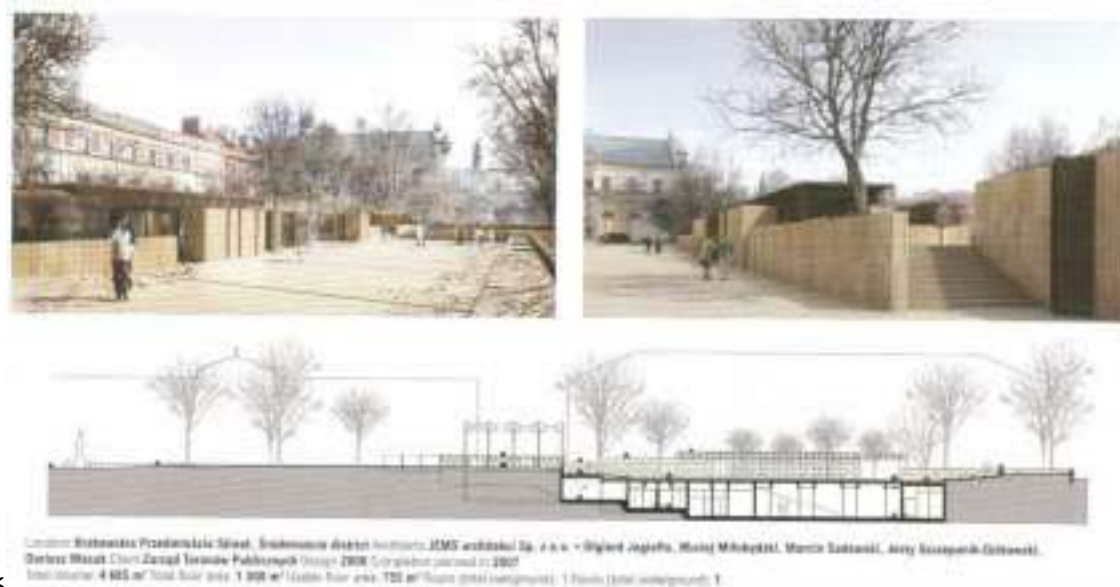


Figure 15: Figure 15 :

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Figure 16: Figure 16 :



Figure 17: Figure17:

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