

## Measuring Desirability of Urban Public Space of 600 Dastgah Mashhad Complex According to the Citizens by Place Check Method

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**ABSTRACT** — The city and its different spaces are established for the activities and behaviors of the inhabitants. The space compatibility with the needs, the activities and the current behavior are important criteria to measure the health, capability and coordination of a society. One of the most important spaces in each city is the neighborhood centers. In fact, these spaces are the first places where everyone after the departure of his private sector is encountered with. That is why the quality of these spaces, the relationship between the man and his living environment and the type of social relationships governing them are effective in the formation of humans due to their environment which duplicates the importance of these spaces. Given the importance and role of these spaces in social and cultural development of the citizens on the one hand and sacrificing their quality as the results of quantitative factors in the new fabric on the other hand, the urban planners are obliged to find a solution to restore the expected quality of these spaces taking into account all existing limitations. This article was developed to analyze the components of the desirability of public and open spaces and measuring them in 600 Dastgah Complex in Mashhad. In this process it has been attempted to extract the quality of spaces using the place check technique so that it would be a guide to design on the basis of real needs and expectations of the residents.

**KEY WORDS:** Desirability Component of Urban Space, 600 Dastgah Complex, Place Check Technique

### Introduction

Given the importance and the role of public spaces in social and cultural development of the citizens on the one hand and sacrificing quality in urban public spaces under the influence of quantitative factors on the other hand, the designers are obliged to find a solution to restore the expected quality of these spaces taking into account all existing limitations because in case of negligence of the quality of urban public spaces, these spaces are gradually forgotten and lose their function and all the spaces of our cities become lifeless. This analytical - functional study is a developmental article in terms of its purpose. The population is about 1,800 subjects that using Cochran formula with a margin of error of 8% the sample of 130 users of the public space of 600 Dastgah Complex is selected. This study has used “place check” method in terms of its nature. In the present study the quantitative research methods is not used clearly but the quantitative data are used to achieve qualitative research results. In the present study first the background of the study and the related theories are addressed and the place check process is defined. Finally the results will be applied on 600 Dastgah Complex as an applied study.

### Literature

Here the experts such as Jane Jacobs, Appleyard, Kevin Lynch, Christopher Alexander, Francis Tibbalds, Ian Gole and... can be mentioned who has special attention too social and functional aspects of urban spaces in order to improve the utility of life and environment (Tibbalds, 2004: 74 quoted in *Buchanan, 1993*). The topic had a significant reflection in the modern urban planning theories such as “sustainable development”, “smart growth” and “new urbanism” (Jam Kasra, Ghorbani. 2010; Rafieian et al., 2011). In addition, the studies conducted by a group of experts such as Pakzad, 2007; Rafieian et al., 2011; Sadeghi et al, 2009; Gharib, 2004; Kashani joo, 2010; A; Madanipour, 2005 and Moeini, 2011 have been focused on the desirability of the environment.

## Theoretical Foundations

### Public area or urban public space

One of today's important debates among scholars of urban issues is the concept of public spaces in the city under headings such as "public domain", "urban space", and "public place" ... Public area is a public sphere in which the public have a right to attend (Khademi et al., 2010). Public areas are the most important parts of the cities and urban environments. The most contact, communication and interaction between people occur in such areas (Tibbalds, 2008). According to Madanipur "public space can be defined as a space that allows people to access it and the activities within it and the space that is controlled by a public official" (Khademi et al., 2010). Creating public spaces can deepen ties of citizenship and, consequently, improve the civil culture and characteristics of the citizens while the public will not become the urban space without such taking steps (Misaghian, 2009).

### Opinions, thoughts and ideas of urban thinkers about public space

#### Jane Jacobs

Focusing on appropriate activities prior to the consideration of visual order of the environment, application of mixed use, considering the street element, the penetrability of the fabric, social mixing and flexible space (Jacobs, 2007)

#### Kevin Lynch

Liveliness, meaning, access, control and supervision, consistency, efficiency, justice (Lynch, 2002)

#### Ian Bentley et al

Permeability, variety, legibility, flexibility, visual proportions, sensory sense, sense of belonging, energy efficiency, conservation of ecosystems, cleanliness (Bentley et al., 2003)

### Department of Environment, Transport and the Regions and the Commission for Architecture and the Built Environment

Identity, continuity, closeness, public realm quality, ease of movement, legibility, compliance, diversity (DETER, 2000)

### Studies conducted by PPS

Access and communications, comfort and mental image, applications and activities, sociability (pps.org, 2009)

### Background of conceptual approaches

In addition to the statement of qualitative parameters four general models in this regard include:

Lang models, Kanter model, Appleyard model and Cremona et al model that are examined in this study.

**Table 1 - Summary of opinions of experts**

	Compatibility	Permeability	Variety	Flexibility	Liveliness	legibility	Visual proportions	Sustainability	Performance
<b>Lang</b>									
<b>Appleyard</b>									
<b>Kanter</b>									
<b>Cremona</b>									
<b>Common viewpoints</b>									

Reference: Rafieian et al, 2012: 7

According to Table 1 the main qualities are as follows:

1. Compatibility
2. Permeability
3. Diversity
4. Liveliness
5. Flexibility
6. Legibility
7. Visual proportions
8. Sustainability
9. Performance (Alipour et al, 2012)

### Place check

Place check technique is one of the new techniques of urban design developed by Robert Cowan on behalf of Urban Design Union Organization to engage people and ordinary citizens in the evaluation of the urban environment (Golkar, 2005).

### Research variables and indicators

The increased desirability of urban life and social life in urban areas is one of the challenges of urban design professionals and many theories have been proposed on the basis of different qualifications and experience (Khayatpoor et al., 2012). Due to the central location of 600 Dastgah Complex in Mashhad and its urban space desirability planning a program to enhance the utility of urban spaces in this area, especially through the process of urban design framework seems necessary. Accordingly the main approach in this study is "situation assessment and developing a vision to increase the desirability of urban space".

### The main objective

Analyzing the desirability of public space of 600 Dastgah Complex from the perspective of citizens by place check technique

Secondary objectives:

1. Identifying the expected qualities of the residents from public space of 600 Dastgah Complex
2. Measuring desirability of urban space of 600 Dastgah Complex from the perspective of citizens
3. Using appropriate techniques to assess the utility of urban spaces

### Geographical scope of the research

The area under study with a surface area of 11 hectares is located in  $36^{\circ}19'56''N$   $59^{\circ}34'19''E$  in region 2 of District 1. The area under study is almost located in the central part of the city of Mashhad that is limited by main and secondary accesses in 4 directions. The area under study is limited in the south by Ershad collector and distributor axis and in the East and West with Ershad local axis and in the North by Ershad 1.16 St. 600 Dastgah areas are located in a residential neighborhood. In the east Astaneh Ghods Razavi, in the west complex 512, in the south gas companies' apartment complex and in the north e Khayyam apartment complex are located. The access is provided by apartment blocks through minor road network branch of the peripheral roads. Most apartment blocks in the area under study are in the area with roadway access.

Given that the roadways are designed such that they have the lowest traffic and vehicle speed, the roadways and foot paths in the study area are separated from each other such that the roadways around are designed in the outer lines and path ways are located in the middle line. Figure 1 presents the roadways and foot paths.



**Figure 1: The area under study in the city**

### Results

According to Table 1 and compliance among the four models the main qualities were extracted so that it would be possible to use the place check technique to analyze urban public spaces of 600 Dastgah Complex in terms of its facilities and limitations and create a new urban public space with high quality and the desired identity. The respondents were as follows: 1- Business owners. 2- Trustees. 3- Religious institutions 4- Board members 5- Residents and tenants 6- school. It should be noted that this method and the research scale act as the preliminary stage of place check. There are different alternatives to perform place check and in this study after the local visit of the region performed to discover and recognize the issues by the group performing the place check, it was performed in combination with the above groups by the questionnaire. The place checklist includes the questions the answer to which could be required for the assessment of an area. However, the final decision on the questions appropriate in terms of a particular area should be made by the place check organizers. In determining the appropriate questions points such as the size of the study area, the purpose of place check and the introduction of participants with concepts and issues in the check list should be considered (Golkar, 2005). In this regard the purpose of place check was based on the research process as the urban public space design guide aimed at promoting the desirability of public space in 600 Dastgah Complex.

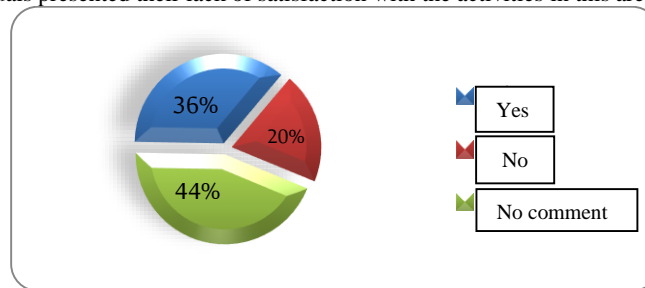
### Compatibility

To determine the compatibility or incompatibility between the two uses the needs and specifications of each one should be determined to carry out normal activity and then compare these characteristics and areas of agreement and disagreement (Poormohamadi, 110: 1387). Urban neighboring land uses have external impacts on each other. Positive effects result in increased efficiency to the extent that neighboring land uses lead to sustainable development and a better way of life while negative effects lead to a decrease in efficiency (Taleai, 2007: 376). Since the fabric of the urban area is residential, in the deployment of the applications their consistency with the underlying tissue should be ensured. The placement of commercial and service uses in the north and southeast and the primary school in the eastern part is in a harmony to provide the daily needs. Figure 2 presents an example of existing uses. Figure 2 shows an example of the existing uses.



**Figure 2: commercial uses on the southeastern side commercial on the north side**

As can be seen in Figure 3, in case of the compatibility of activities from the standpoint of respondents, 36% of the individuals consider the activities and events at these locations in accordance with the characteristics of the surrounding areas and the remaining 20% of the individuals presented their lack of satisfaction with the activities in this area and some cultural issues.

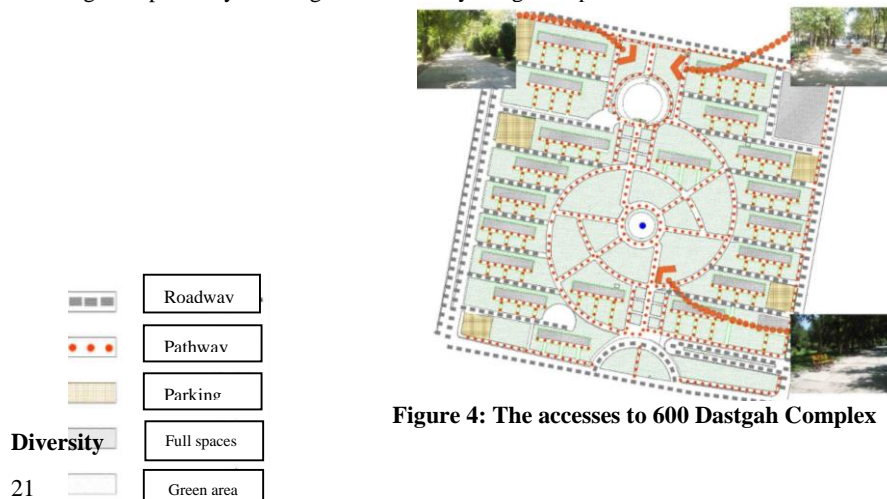


Source: The author

**Figure 3: The amount of compatibility of the activity with the surrounding characteristics**

### Permeability

Permeability refers to ease, variety and density of the input and output routes and the distance to achieve different point of the urban tissue (Bentley, 2003: 121). In the area under study due to the residential role the urban hierarchy are fully respected and the presence of local roads around 600 Dastgah Complex and its Ershad collector and distributor and the roads branching from the local roads to have local access, linear park and parking space indicate the respect for hierarchy of the access roads. In this area the share of pedestrian is preferred over vehicles. On the other hand creating a circular loop and the local roads branching from it has prevented the entrance of the strangers to 600 Dastgah Complex and reduced the vehicles. Access to the central area is through the path ways leading to the roadways. Figure 4 presents the routes.



**Figure 4: The accesses to 600 Dastgah Complex**



600 Dastgah Complex has a variety of spaces to meet the needs of its residents including children's play space, teaching, commercial, green and social spaces. These spaces have different audiences and age groups from morning to early evening. According to interviews conducted by the users of space in the summer, spring and autumn, the urban spaces had greater visitors but they are not used in cold days due to lack of proper space planning. Also these spaces are mostly used in festivals, holidays and leisure time because of the free time of the target groups. Figure 5 presents examples of these spaces.



**Figure 5: The children's play space, teaching space**

Also according to the results of interviews with residents, 600 Dastgah Complex has spaces for social interaction.

#### **Flexibility**

The central area that is the most important public space in the area under study is used for the interaction between the residents. Gender and age groups use these areas at specific times. Also the children's playground has some walking paths and other areas with their own targets. During the day according to the observations in the early hours of the day (morning) most of the elderly and pensioners use these spaces and the women, children, adolescents and the elderly are the target audience of these spaces in the afternoon. The permanent presence of people and target groups in the central area has led to a type of gender division of space so that in the afternoon the northern part of the central area is proper for women and men are gathered in the southern part to have conversations with their companions. On the other hand lack the lack of predicting spaces for young people causes problems for other age groups such that the passage of the cyclists and skaters has caused problems for the people. During the last hour of the day, these spaces lack visitors due to the lack of brightness, activities and specific uses.

#### **Liveliness**

A lively urban space is the one in which many a significant number of people and their diversity (in terms of age and gender) is seen in a wide range of time of the day with their selective or social activities (Khasto et al, 2010: 4). The lack of lively and attractive uses in the environment especially in urban areas has caused these places lack vitality so that in the dark and after a few hours of the night due to the lack of any attractive space, these spaces lack visitors and have low security.

According to interviews, some of the programs for vitality are an observational program conducted by municipality and Sanabad neighborhood cultural center, organizing the Nourouz night by Sanabad municipality and... presented in Figure 7.



**Figure 7: The programs held in the area under study**

#### **Legibility**

Legibility is a quality that provides the understandability of an area (Bentley et al., 2003: 113).

In the central part of the site in which a considerable opening of space is located which is the place for the interaction of the residents. Also the existence of a swimming pool and an element in the middle (Figure 8) and its centrality acts as a sign. The location of this element at the intersection of the pedestrian pathways has enhanced it.



**Figure 8: An element at the center**

For the understanding of the people in this environment, they were asked to draw the mental image they have about 600 Dastgah Complex and determine the prominent elements, edges, passages, access, community sites and their location on it. Some people did not have a clear understanding of their residential area and hesitated to draw the image of 600 Dastgah Complex but none of them were aware of the rotation of the area to the north west and drew 600 Dastgah Complex and its roads north - south and east - west. Streets and roads around 600 Dastgah Complex had the necessary legibility so that Ershad Blvd., Ershad 1 Blvd and Dehkhoda Street were remembered by the residents but a number of residents considered 600 Dastgah Complex limited to Ferdowsi Avenue and North Street as Ferdowsi Blvd. They identified the central area, children's playground, bakery, recycling, north side shops, Razavi bread stalls and the openness of the space at the beginning of 600 Dastgah Complex as places for activity, gathering and distinctive elements. A small number of respondents recognized the radial streets branching from the central area. In general, people and residents understand the total space but the elements and side roads were not memorized so the areas have relative legibility. Some mental images are presented in Figures 9, 10 and 11. If a place could communicate concepts to the people by its visual qualities, it has visual proportions (Tabasi et al., 2011: 8). The study area is divided into two parts: a part of 600 Dastgah Complex in which the required balance between components is respected but due to its high grading and in height, human proportions are not observed and planting trees have somehow alleviated the scale. The presence of apartment blocks from one type of structure has led to the homogeneity of the fabric with the same sky line. The other part is related to the pavement and pedestrian spaces and given that there is no mass around it and it is surrounded by the green space, it is within the human scale and can be understood. Figure 12 presents an example of visual proportions.



**Figure 9: human scaling the space by trees**

### **Sustainability**

#### **Environmental sustainability**

Environmental and urban environment protection through environmental guarantee performed by reducing reliance on natural resources, minimizing pollution, avoiding contamination of the ground, following energy efficiency, enhancing biodiversity and reuse through cleaning the burnt lands which will to improved quality of life (Strong, Hemphill, 2006: 486). In 600 Dastgah Complex green spaces are scattered through the buildings and apartment blocks along the paths pedestrians and vehicles and opening of the centers that while cleaning the air, they lead to environmental sustainability in the space. Figure 13 presents the distributed green spaces and green routes.



**Figure 13: the green space of the area under study**

#### **Social stability**

Sustainable development indicators are required to prepare basic information to define goals and identify actions needed to implement them. They are used to review and assess the implementation of the urban development process and the relationship between tangible and concrete results proper for the actors involved in social issues and other interested public (Banica, 2010: 340.). As shown in Figure 14 according to the calculations, 1.3% of the people were dissatisfied with the presence of outsiders and strangers also the presence of places for the hangout places near the children's playground, the presence of annoying people and addicts in the dark places behind the blocks in the study area is another social adversity in the area under study that causes the women to be dissatisfied with lack of social security.

#### **Economic stability**

Economic stability means to strengthen the foundations of economic stability and achieve economic security in terms of access to sustainable livelihoods, employment, financial resources and ultimately appropriate technology and human resource utilization in harmony with the environment (Qadiri Masoum et al., 2010 : 10) Given that the area under study is old, its urban areas have been subject to erosion over time, which requires higher cost of the maintenance. So the area under study is not economically sustainable.

#### **Conclusion**

This study attempter to evaluate 600 Dastgah Complex by place check method through desirability criteria in urban areas based on different viewpoints and achieving common concepts out of them. The results of this study suggest that using place check method can be used to evaluate desirability in urban public spaces from the perspective of the target group. For this purpose, the desirability of 600 Dastgah Complex in each criterion is presented in Table 2.

**Table 2- The desirability of public spaces in 600 Dastgah Complex**

	Compatibility	Premeability	Variety	Flexibility	Liveliness	legibility	Visual proportions	Sustainability
<b>A survey of residents</b>	36	-			70	70		
<b>field observations and impressions of the author</b>	-	100	80	80			90	80

Source: The author studies based on questionnaires and field study

According to the conducted survey and the weight of all the criteria of desirability of public places 600 Dastgah Complex has relatively good desirability and it can be said that the presence of pause spaces, systematic arrangement of the apartment blocks, paths and roads around this area and spiral walking paths around a central courtyard, commercial and education uses at local level, green and designed spaces have created a unified whole for 600 Dastgah Complex and the people can understand it and understand its quality of relationship and they haveas acceptable desirability in general. On the other hand although the residential role of the area under study causes the establishment of a specific range of applications but the necessity of mixing applications in blocks and urban spaces should not be ignored. Thus, not only access to different features is far easier, but also it is possible to be hopeful that given the framework governing the space and considering the variety of parts and blocks, mixing land uses and active uses can ensure optimum use of available space.

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