Research Article
Investigating Contemporary Iranian Urban Parks on Mental Vitality for Children (Case Study: Teheran Water and Fire Park)

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Abstract: This study aims to determine factors that make urban park more vital for children. The next generation of nations will come from healthy children being spared of the negative effects of industry turmoil. Children wandering in the cities are searching loop to find a link with nature. If we establish a relationship with nature and living conditions of children are provided in a way that nature has done, it acts as an antidote to prevent many social effects. So with regard to the further development of cities, urban parks and green spaces improve mental and physical health of the children. On the other hand, with a look at the existing green spaces and parks in Iranian cities, we realize that these places do not enjoy, at the children`s view, the level of freshness and vitality and simply impose certain activities to children and the only use is for leisure.The present study investigates water and Fire Park in Tehran as a case study to find the challenge and the reasons for the lack of vitality in these areas. The research method is descriptive-analytical statistical data were collected.through questionnaire the results of the analysis of questionnaire data suggests the fact that two factors of entertaining and varied and flexible and creative activities for children are weakening factors of the vitality levels in these samples.

Keywords: Children, creative activities, lively parks, urban spaces

INTRODUCTION

The developmental stage of a human being begins from birth, can be seen in the path of growth and development of a society and the growth stages of a society can be looked in the direction of historical evolution of human. The community, accordingly, has its own personality and reflects the individual character of its people.People in a given society, with different personalities, have different growth rates, but they are finally the representative character of the community and its development stage (Mofidi, 2002). If we need a mature and developed society, we must look at its children and pay attention to the planning for them, we should have sufficient knowledge of natural conditions and psychological needs of children in various aspects of personal and social life and provide rearing grounds. Education, mood and behavior that are part of the culture of a society, are far effective than the supervision and surveillance. So in general education, we should follow a method that ensures the promotion of popular culture. Today, environmental psychology determines what the human`s view to environment is affected by and suggests ways to improve these factors. Human`s unfavorable view to some environmental and human factors causes abnormal conditions to be created in today's society. Requirement of a healthy community is based on social maturity. When a community finds social maturity, it can supervise the process of children`s maturity. Child is the representative of the same things that are imposed on her and her condition. Change of opinion and behavior in childhood is fast and the change of his behavior is somewhat more lax. child is more prepared to accept the policy and moral education in dealing with the phenomena of life, environment and uncertainty. Personality development of a child begins at birth and reaches its maturity at later stages such as infancy, pre-school and school age.

As the major features of human character are formed in early childhood and regarding the role of the human environment, either in terms the internal reaction and external behavior, planning children`s environment should be based on theory-based design environment characteristics and needs of healthy and unhealthy children, perceptions of their landscape and environment and the environmental effects on children's all-round development. The lives of children today are faced with many constraints. During the second half of the twentieth century, major changes occurred in the conversion of rural to urban population so that now most children are born and raised in the

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manmade spaces of cities.On the other hand, children`s mental world creates certain expectations in their mind if designing does not respond to them, the child cannot be involved in that for a long time and do activities.

Many of the spaces that are created for children do not pay attention to different aspects of the child`s existence and are not coordinated with the perceptions, activities and consumer needs. In fact, these spaces are shaped with regard to understanding the characteristics of adults-not children-which not only do not help in various aspects of child development, but in many cases lead to the emergence of the children`s boredom and fade out childish pure creativity.One of the most significant problems which must be considered in child-specific spaces is factors of vitality for children. Park as an urban space that specifically targets one of the factors that can lead to children's activities requires the construction of facilities to activate the vitality. With a closer look at existing parks in the cities, we find that these spaces have not been able to create vitality for children and need to be revised. In the current study challenges are assessed in creating vitality for children with review of Tehran water and Fire Park. To be more clear, main objective of this study is to investigate on variables which more navigate children happiness and vitality in urban parks.

METHODOLOGY

The research was conducted through the following steps: initial question, exploratory studies, the study question design, building analytic models, data analysis and conclusions (Kiwi and Capenhood, 2007). To develop an analytic model, correlation analysis method with questionnaire was used. The main hypothesis of this study is that it seems vitality of urban parks for the children is very low.

CONCEPTS RELATED TO CHILDREN'S PARK AND URBAN SPACE

Definition of urban space: Before defining the concept of urban, we space must first identify the concept of space because urban space is of the kind of space and part of the surrounding area. Space itself is not a trivial concept. The concept is a relatively complex semantic definition far broader than that of the physical or natural environment that is implicit in the discussions and is referred to three dimensions of the external world, namely frequencies, separations and the distance between people and objects and among the objects. From the anthropological view, understanding space is organized differently and crystallized which can vary upon every culture and sub-cultures, each with different degrees.The fundamental question in the perspectives of anthropology is to understand the space mechanisms that have been used in certain areas to allow a group of humans to live in that environment in a stable and continuous form. Humans live in space and

have the continuous interactions with it.Urban space as a subset of the space concept is no exception. This means that the physical and social dimensions of a city have a dynamic relationship with each other. In fact, the urban space is comprised of both physical and social space. The concept of space and urban space has been formed historically in the new and classical theory schools. Aristotle, for example, regarded space as the set of places and the dynamic ground with qualitatively different symptoms. These symptoms and that background set space to act with pragmatism and give style to it. An urban environment can be based on different geographical, architectural approaches. Urban space is a realm for each of the actors playing a role as society actors; Positive and sometimes negative role, strong and sometimes fainted roles, the general and specific role. Urban space is the realm of public activities that occur in urban life (Streets, squares and parks form human activity. These dynamic spaces form the basic components of life support systems against fixed and sedentary places of life and work at a city. They provide mobility network, communication centers and public places of recreational game in town (Glazer and Lilla, 1987; VernezMoudon, 1992; Sorkin, 1992; Tibbalds, 1992; Worpole, 1992). The importance of the public domain in a city's development is so great that most designers and urban planners have emphasized the need to review it (Glazer and Lilla, 1987; VernezMoudon, 1992; Sorkin, 1992; Tibbalds, 1992; Worpole, 1992). Rogers believes that large cities and urban spaces are known with their grandeur and one of the criteria of assessing a major city is its ability to create fun, natural beauty, in the public domain for their citizens Furthermore, the public realm in cities cause people to trust each other and thereby increase the bond between them.

Today, urban areas in developing countries have become deserted spaces due to the rapid growth of these cities (Harnik, 2003). Thus, the needs to review and investigate the problems of the urban area in these countries have attracted the attention of researchers more than ever.

Parks, urban space for child's needs: According to Moein Persian encyclopedia definition, child means small, minor or the person who hasn`t reached maturity. Amid Persian encyclopedic refers to child as young daughter or son. The American Heritage Dictionary has defined child as a person between birth and puberty (Azmoodeh, 2012). The next generations of nations come to world only from healthy children unaffected by negative effects of industry turmoil. Children wandering in the cities are searching the loop to find a link with nature.If we establish a relationship with nature and living conditions of children are provided in a way that nature has provided, they act as an antidote to prevent many social effects. Environment preparation for child development should be made with

Table 1: Characteristics of the vitality of urban parks for the children, (Source: The authors)

Name of experts	Vitality criteria	Adjustment for kids
Kevin Lynch	Biological and ecological characteristics of urban space	Climatic comfort
Jane Jacobs	Use, spatial and activity diversity of urban spaces	A variety of activities and entertainment for children
SaiPaumier	Attracts a large number of people	Fits the families of all cultural and economic strata
Ian Gehl	Occurrence of the "optional" and "social activities"	Flexible, creative and free activities for children

awareness of his mental condition. The actions to establish healthy environments for children must be based on supportive plans and thoughtful programming. We should recognize the child's temperament and character consider family support in the social environment, plan supportive cycle out of her family environment effective for children to be helpful and cause his empowering to be compatible with life events. (Douglas, 1995) Community centers and public spaces in cities can help children to express reality and act as a bridge between the child and the community to create communication (Message of UNESCO, 1991). It seems park as one of the most important centers makes a vibrant role in building lively spaces for children.

CRUCIAL FACTORS IN BUILDING A VIBRANT URBAN ENVIRONMENT FOR CHILDREN

In Robert Cowan`s urban dictionary, vitality and viability have come together in a way:, "Vitality and Viability" is the characteristic of the centers of successful towns and cities (Cowan, 2005). Lynch described liveliness with human-centered criterion: "to what extent the city form is the protector of vital functions and man`s capabilities and biological needs and how makes it possible for all organisms to survive " (Lynch, 1984). Lynch (1984) considers in his classification, mainly biological and ecological criteria into account and only deals with this approach to vitality.

Factors such as social, cultural and ecological issues which are important in this argument are ignored. Therefore, in order to achieve a vibrant and dynamic environment we must have a more comprehensive view to the topic to allow more complete classification (Khastou and Rizvani, 2010). Paumier (2007) in the book "Creating an urban lively center ", presents factors affecting the vitality of a successful and vibrant public space "the place of a successful public space should be managed in a way that attracts many people and also be near retail centers in a way that is catchy and activity-producer". Jacobs (1961) expresses four main conditions for creating a fruitful diversity in urban areas and therefore the vitality of city streets:

- The area should have more than two main functions preferably.
- Area are dominated by the short blocks.
- Area must have the combination of the buildings of varying age and condition.
- There should be sufficiently dense concentration of people, regardless of their presence (Jacobs, 1961).

He talks about diversity of uses in his first condition, in the second and third condition about the physical diversity and about the variation of activities in the fourth condition; in fact he believes diversity will be followed by the vitality (Khastou and Rizvani, 2010) So, another important factor that affects the urban vitality is the variety of physical activity and diversity of uses. From Ian Gehl`sview, There should be vibrant environments in which "voluntary" and "social" activities flow in a relatively wide range of time (Gehl, 1996). Other studies show that traffic mitigation (Bonanomi, 1990) and reduced street noise (Amphoux *et al.*, 1998) are among the factors which have a vital role for the streets to be alive and revitalize urban communities.

According to experts's opinions and ideas in relation to the vitality to be used in the present study, there was an adjustment in the indexes so that they can be applied as the theoretical framework of the present study. Table 1 shows a list of some criteria that can be used to measure the vitality of green spaces and parks, according to the children`s needs.

ANALYSIS OF CASE STUDY

Case study: The case presented in this study is the garden of Ibrahim or the water and fire park which was opened on 04.16.2009. The park has an area of over 24,000 square meters and has modern equipment such as four fire towers and a 700- meter tent with a battalion of 370 Men. Silk Bridge, cubbyhole, chariot racing, lighthouse, fountain, fire towers, pavilions and green environment are the main features of the park.

Fig. 1: Music and water (Authors)

Table 2: Reliability of analysis

Chronbach`s alpha	Number of items
0/724	4

Table 3: Relationship of children`s vitality with the main indicators from children's perceptions

Correlation analysis

Analytical model	Not standardized coefficients		Standardized coefficients		Significance level
	b-value	Standard deviation	β value	t-value	
Variety of activities and fun for children	0.081	0.170	0.115	1.952	0.042
Fitting the families of all cultural and economic strata	0.261	0.216	0.287	2.008	0.035
Flexible, creative and free activities for children	0.115	0.270	0.085	1.872	0.045
Climatic comfort	0.587	0.109	0.651	3.245	0.000

The great length of the park is ideal for walking and aerobic exercise. There is also possibility of cycling in the quiet periods. The southern part of the park, which itself is connected to Taleghani Park, is linked to the main park by a bridge (Fig. 1). This bridge is located in a proper height from Hemmat Highway, which has an excellent view. Water and Fire Park, with an area of 24 thousand square meters is one of the beautiful parks in Tehran, the equipment of which is different from other parks of Tehran (Beautification, 2002).

Statistical sample and questionnaire design: According to the theoretical foundations and experts` opinions and ideas in relation to vitality and child, four sub-indicators were designed with 12 questions and the questionnaires were distributed in park space between the children. Based on the sample variance calculated from the data of 1,000 14 to 18-year old children in 20 primary questionnaires given in a certain hour in the water and fire park of Tehran, the sample volume was calculated from the following formula with 95% confidence level and error of 0/07:

$$n = \left[\frac{Z\frac{\alpha}{2}.S}{d}\right]^2 = \left[\frac{1/96 \times 0/62}{0/07}\right]^2 = 277$$

Given the importance of the reliability of analysis in the questionnaire, the level of this indicator was calculated according to Cronbach's alpha statistic as in Table 2.

As is known, the value of this statistic is greater than 0.70, which demonstrated the reliability and the reliability of the questionnaire intended to be used for further analyses.

Analysis of research findings: As mentioned in the basics of research, indexes of climatic comfort, variety of activities and entertainments for children, compatible for all families off culturally and economically different back grounds, creative and flexible activities for children as benchmarks for vitality in water and fire park in Tehran from children`s view at the questionnaires were considered.

According to the study trend, the methodology in this study was based on analysis of correlation. A correlation study is a descriptive research method (non-experimental) in which the relationship between the variables under study is assessed. Correlational research can be divided into three categories based on purpose. To investigate the relationship between the amount and type of variables, correlation is used. The correlation coefficient is a mathematical index that describes the direction and value of the relationship between two variables. The correlation coefficient is used for the distribution of two or more variables. If we change the values of two similar variables, meaning the trend of change is the same between two variables so that we can express the relationship between them as and equation, it is said that there is a correlation between these two variables (Habibi, 2012).

As shown in Table 3, based on P-Value index which is smaller than 0.05, it is the expected that a significant correlation is established between all four factors and the liveliness of children. The severity and type of relationship are extracted from the questionnaire as follows:

According to correlation test and regression coefficient of 0.085, it is clear that the factor of presence of free, creative and flexible activities for children in Tehran water and Fire Park is a great weakness. It seems that the reason for this is that the park activities impose certain activities and actions in dealing with children. Clearly, festival activities such as painting, arts and cultural activities which are open can be effective in promoting this activity.

Additional factor that drastically reduces the vitality of the park in terms of subjective perceptions of children is the variety of activities and fun for the Children with a regression coefficient 0.115, resulting in interruption for children`s vitality. Indeed, there are embedded activities for children, these activities have not become fully successful and the children become bored after a while the proportion factor for families with cultural and economic background with the regression coefficient of 0.287, outperforms the other two factors, but the overall condition is relatively and the need to adopt strategies to improve the quality of this factor in the park in an inclusive platform is felt.

The best factor to play its role through the park, according to children`s needs, is the climatic comfort with the regression coefficient of 0.651 in questionnaires.

CONCLUSION

Vitality is the prerequisite of children`s life in cities where the turmoil caused by the activity and work has left no room for their proximity to nature.

Therefore, this study aimed at evaluating the vitality of urban parks for the children as a case study in Tehran water and fire park. After the views of experts on the vitality in the urban spaces and reviewing related definitions for children were considered, the research conceptual model was adjusted according to the needs of children for which four factors of the climatic comfort, diverse activities and fun for children, proportional with families of all cultural and economic background and flexible, creative and free activities for children were introduced as the main indicators of vitality The results obtained from the data analysis of questionnaires showed that two factors of diverse and entertaining activities for children and presence of flexible, free and creative activities for children are weakening factors of vitality in our case study. It seems that the main reason of this issue is designer-oriented policies and lack of participation from children in planning these places. The factor of cultural and economic diversity have reduced the vitality of the place which can be attributed to wrong topology of the park in being located in the rich-living region of Tehran.

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