



Evaluation of effective factors on vitality of public spaces of new cities with emphasis on identity concept

Seyed Reza NASRI^{*1}, Sarah Imani KOLOURI²

¹Ph.D. candidate of architecture, Azad University of Brojerd, Academic trainer of urbanization department, Payam-e Noor University, Qazvin

²MA student of architecture, Department of architecture, Saveh Branch, Islamic Azad University, saveh, Iran

Received: 01.02.2015; Accepted: 06.06.2015

Abstract. The formation speed of new cities and public spaces of these cities without consideration of environmental quality parameters on one hand and different social culture of immigrants to these cities on the other hand have caused that public spaces of these cities don't have required identity and vitality in terms of physical and perceptual aspects in social relations of citizens. The received urban landscape includes physical and perceptual factors creating sense of place and its suitability or unsuitability in a person. The hypothesis of study is based on the fact that creating a good visual environment and coherent, diverse body of city in physical aspects and creating common collective activities consistent with various classes of people, participation of people in social events, respecting all classes and using some symbols of various migrant culture in common spaces can attract many people to the environment from social and perception aspects and increase sense of people and vitality of environment. The present study aimed to evaluate the effective criteria on improving vitality of public spaces of new cities and identity in them. A process that can recognize the suitable criteria and maintain consistency of structure of these public spaces in terms of physical aspects and can eliminate the contradictions and emphasize on historical and cultural issues and can create common collective beliefs. The study method is combinational and in the first step by the study of theoretical basics in qualitative part, the framework of theoretical basics of study as effective components on vitality and identity of public urban spaces is extracted and in the next step in quantitative section, these factors are investigated by providing questionnaire and the analysis of data and their evaluation in some successful samples. The effect of these factors is prioritized and finally by support of study hypothesis, some recommendations are presented for suitable design of spaces with emphasis on place identity index.

Keywords: Urban culture, Society, Common identity, Space vitality, Sense of place

1. INTRODUCTION

In design of an architecture work, especially when this work includes an urban complex and public space, two main factors are considered. First factor is considering the form, physical and environmental aspects as dependent upon the requirements of architecture project and second factor is human being and his mental and social needs as space user. Unfortunately, today namely in designing new city spaces, the second section is less important.

Davis yeang considers the perception of situation of an urban complex as a wide spectrum of factors as resident and interacting society with the city, place quality, local community's features and natural, environmental factors as forms, views and communication and improving or weakening of each of these factors can change identity feeling in the urban society (Yeang, 1988:18-28).

According to Majedi, common images of city are important factors in identity and vitality of an urban space can be based on the following factors.

* Corresponding author. Email address: Seyed Reza Nasri

Evaluation of effective factors on vitality of public spaces of new cities with emphasis on identity concept

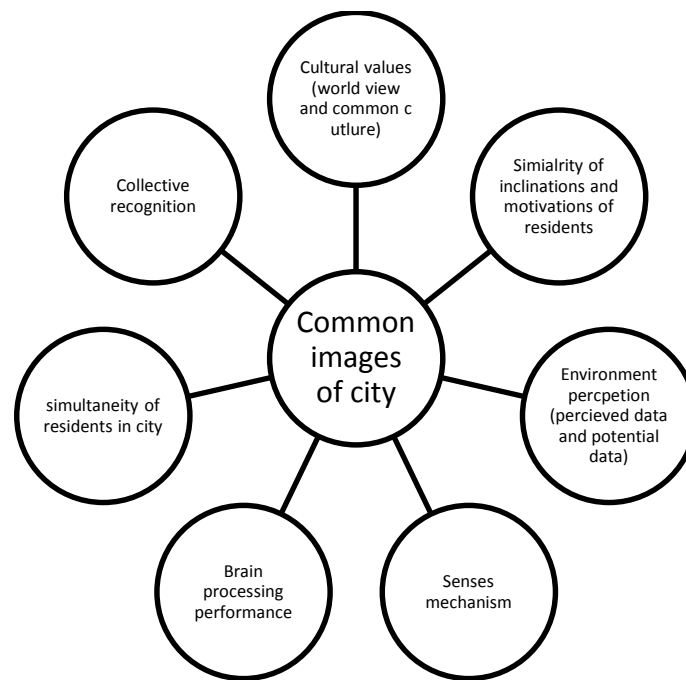


Chart 1. Effective factors on common images of city (Majedi, Zarabasi, 2010).

Based on the introduction, we aim to recognize the factors presenting the better perception of human interactions in environment as affected by society and architecture space at the same time to observe more interactions and suitability in urban public spaces. Thus, identity and vitality are provided for different classes of people.

Literature review

Many studies have been conducted regarding the interaction of architectural-human behaviors physical aspects and all of them can not be elaborated in this study. For better recognition of this issue, at first a brief introduction of theorists' approaches is presented, then in review of literature, the main definitions and concepts are discussed.

The theorists in environmental-sustainability of public space trend

Serge Chermayeff, Graham Haughton, Hugh Barton and Richard Rogers, Chris Hunter

Movement in urban space and pedestrian orientation trend theorists

Tony Garnier, Speiregen, Halprin, Edmond Bacon, Bill Hillier and Michael E.Arth

Spatial-visual cognition trend theorists

Sitte, Gordon Cullen, Rob Krier, Rossi, Christopher Alexander, Cliff Moughtin, Ali Madanipour and Jahanshah Pakzad

Environmental-behavioral affects trend theorists

Hossein Bahreini , Jon Lang, , Amos Rapoport, Romedi Passini, Halovil and More, Lynch

Security and human scale trend theorists

Zeninca and Bernan, Mammford, Andres Duany, Peter Katz, Francis Tibbalds, Lewis Mumford

Social interactions trends theorists

Hana Arendt, Zucker, Jane Jacobs, William Whyte, Jan Gehl, C.C. Marcus, Oldenburg (Kashani jo, 2009:37).

Review of literature

New cities: There are various definitions of new cities in socio-economic systems of the world and based on theoretical changes, these definitions are highly diverse. There is no complete definition for new cities but briefly, the following definition is supported:

New city is a self-reliant society with definite population and area, definite distance from metropolis, pre-determined planning, definite goals and all required facilities for an independent environment.

Normally, new cities are designed for non-centralization from physical, economic and social aspects in urban area of metropolises that with proximity to big cities encourage the population to exit from metropolis to provide residency with execution of socio-economic development plans.

Public spaces: Public space coordinates urban communication system as new players enter it. The duties of public spaces are classified as:

- 1-A tool for communication
- 2-A place for encountering
- 3-Management and coordination of free citizens

Table 1. Definition of public space (Source: Ruhafza, 2011).

Definition	Researcher
Public space is defined as external life room and recreation outside house.	Lipton (2003)
Public spaces are those we share with strangers, they are not spaces for friends, they are used for political activities, rituals, trade, game, etc., a space for living, peace and non-personal behaviors	Walser (1986)
Public space is the region outside of controlled borders of small individual groups and the distance between private and spatial spaces as applied for shared performances and symbolic goals.	Madanipour (2003)
Public spaces of all urban texture as all people have physical and visual access. Public areas are the most important section of structure of cities and townships, where the most human contact is occurred in it.	Francis Tibbalds)1992(
Public space is the one in which access is without limitation to space with various activities and as the result of this unlimited access, social interaction is formed.	Combinational image

External public space: Some pieces of land as located among private land. In urban spaces, urban squares, streets, highways, parks and parking, etc. in rural areas, coastlines, forest, lakes, river and etc. are external public space (Rohafza, 2011, 38). These spaces are available by all people and show public spaces as its purest form.

Internal public spaces: Internal public space includes libraries, museums, City Theater, etc., public transportation as train, bus stations, airport, etc.

Nature and functions of urban public spaces

An urban space consistent with time, place needs of people in society can have good or unsuitable feature (Golavy, 1996). The functional consistency with expected goals, scale and volume of relations and consistency with routine needs of social groups and consistency with the general structure of city, urban space can use the important aspects of good system. Urban space with social and cultural values of society is the container of urban activities and relevant necessities (Gehl, 1987, 86). The first type necessary activities as occurred under any conditions and don't have specific relation with social unique features as going to work, waiting for bus, etc. These activities required different degrees of social participation. Second type of activities in urban space are selective methods as necessary under suitable conditions and favorite condition of people as walking in open air, stopping and pausing in public places, sitting and rest in attractive places, etc. The third type is social activities and based on some features of urban space includes a wide range of mutual relations of people and due to being affected by other social space activities are called final activities. Specific conditions of spaces for standing, sitting, eating and playing affect these activities. If urban space has no required aspects for social improvement, only a few of these activities can be emerged and vice versa, high value of these aspects can emerge most of these activities.

The investigation of the concept of vitality and view of architects and environmental psychologists to it

“Kevin Lynch” considers the environmental health as the basis of vitality in environment and considers a good residency as in which health and wellbeing of people is provided.

He considers the pollutions in cities. For example, he refers that noise, lack of light, direct and indirect effects of them and life vitality can be affected (Lynch, 1997, 163).

According to Jacobs “density provides a mixture of use and various buildings with people over crowdedness and an image of an ideal city center is provided. Such features have attracted many of residents to city center and this issue by improving economic return of these urban environments, a new and dynamic view is provided and this is generalized to the entire city (Habibi and Salimi, 1997, 35).

“Jan Gehl”: His theories emphasize on human aspect of architecture and interaction between architecture and planning, sociology and psychology.

His book “living in the space among the buildings” is the result of his studies on public and collective spaces. He was one of those who formulated human values in his book.

Briefly, the view of Gehl regarding vital space is defined as:

Table 2. The opinion of Yean Gehl regarding vital spaces (Yahbudian, 2011, 66)

Protection against traffic and accident	Protection against crime (security)	Protection against unpleasant experience as storm, noise and pollution	protection
Facilities for walking	Facilities for sitting	Facilities for pause and stopping	Comfort
Facilities for watching	Facilities for hearing and talking	Facilities for return and activity	Activity
Human scale of space	Facilities for enjoyment of good climate	Aesthetic quality of building	Enjoyment

“Henry shaftoe” in the book “vital public spaces” considers vitality equal to public space success without any special distinction between these two concepts. He believes that vitality of a public space includes physical, geographical, management, psychological, emotional aspects and is based on the involved subsections (shaftoe, 2008: 139-143).

Summary of effective factors on vitality

Based on the summary of above views, we can say the following factors as repeated in most of views are effective in vitality in public spaces of new cities:

Considering the desires of people at all ages

Environmental attention (physical security of space, suitable green space, etc.)

Security

Good density

Land use mixture

Days and nights activities

Legibility, movement system and good access

Good pause and sitting spaces

Spatial diversity

Finally sense of place and common identity in space

In the next stage, the author provided a questionnaire among 50 people who went to Parand for more than 3 years and evaluated the study hypotheses and extracted factors among the views of theorists and the data are summarized in the following chart.

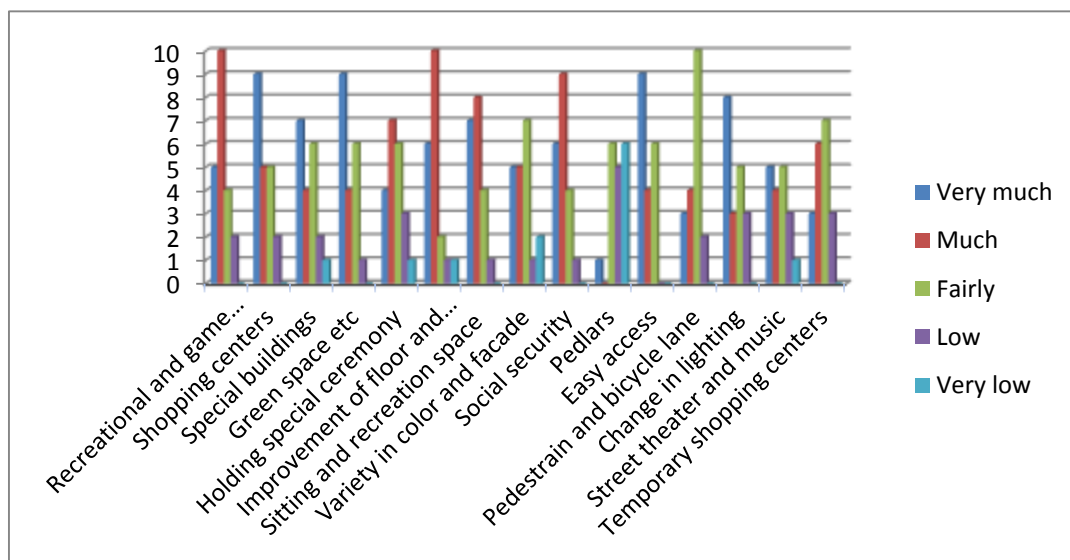


Chart 2. Effective factors on increasing vitality and identity in public spaces of new cities (Source, author, 2014)

2. RESULTS

Based on the chart, high percent of respondents put on priority the shopping centers, green space, easy access and change in lighting in creating vitality of urban spaces of Parand city. The effect of recreational centers and game of children, improvement of floor and façade and sitting space and recreation of various classes and social security were high and specific lane as pedestrian and bicycle were fairly and peddlers were effective as low. Also, respondents in response to which spaces in city are good referred to crowded areas, parks, Bam parand, restaurants, green spaces and public recreational spaces and they referred to silent places as insecure ones. Finally, improvement of quality of lanes, shopping centers, park and much green space, cultural facilities, better access and high recreational facilities and lighting at night were recommended to improve the quality of spaces and high vitality of environment. In final stage, by investigation of recognized factors of above data as 4 general sections of form features, social and cultural issues, identity, climatic and environmental components in some successful samples attempted to recognize these factors better to achieve the final conclusion and summary.

Findings

1- Cantonese operas



Image 1. Cantonese operas, Hong Kong, Kowloon (www.dezeen.com/2013).

Chinese New Year and celebrations in Hong Kong include Cantonese operas performed at a theatre in the new West Kowloon Cultural District. One of the architectural features of this urban complex is orange nylon sheets stretched over the tiered roof to imitate the ancient palaces of Beijing's Forbidden City and it is a symbolic design of historical identity.

Its colorful fabric signs are mounted on bamboo scaffolding face out onto the street. Red chairs, curtains and lanterns adorn the interior are considered lucky in Hong Kong and China (www.dezeen.com/2013). Color variety and using these attractive symbols invited people to environment and created social interactions among them in good space.

This location is designed by Vancouver firm Bing Thom Architects and Hong Kong studio Ronald Lu & Partners Company Ltd.

The main feature of this work is associating cultural, historical and social identity of the region and by protection and showing some items help the collective identity and sense of being and vitality for residents.



Image 2-3. Cantonese operas, Hong Kong, Kowloon (www.dezeen.com/2013).

2-Revitalization of Finsbury Avenue Square in London



Image 4-5. Revitalization of Finsbury Avenue Square in London (Roudman, 2014)

This square was designed at first in 2001. Before renovation, it was seen as a dark and unwelcoming plaza that people avoided at all hours of the day. SOM's redesign is centered around an intricate lighting installation built into a matrix on the ground. Over 100,000 LED lights and 650 fixtures illuminate a variety of scenes during the day and night (Landarchs.com/2014).

These color changing LED lights provide numerous color selections. Scenes are illuminated through frosted glass strips as pedestrians walk across the plaza in a variety of scenes. Subtle color changes to dynamic light shows activate this space. Greens mix with intense reds and purples generate a variety of moods which are reflected in the adjacent buildings' glass windows. As shown in image 10, strips which extend from the main matrix protrude from the ground and act as a center. Lighting is different in different seasons as in fall, yellow leaf of trees is inspired or in winter, lighting is as snow and rain is associated. A sculpture piece named 'Rush Hour' by American sculpture George Segal portrays six people as they walk through the daily grind of a worker's commute. By this plan, local and social events are revitalized in this space and this space is a good location for social events, meetings, lunch and increasing public feelings. Involvement of people in visual communication and holding music festivals and tennis matches on table are useful.

Evaluation of effective factors on vitality of public spaces of new cities with emphasis on identity concept



Image 6-7: Kayd Futi Street, 2014- satellite map of revitalization of Finsbury Avenue Square landarchs.com/2014.

3. NEW SEJONG CENTER FOR PERFORMING ARTS



Image 8. Sejong Center for Performing Arts, South Korea, Sejong, 2013 (www.dezeen.com).

Cultural places have always been important networks in city center. Sejong city considerable required such enter for its development. The main aim of this cultural center as designed by Asymptote was giving importance to cultural roots and contemporary life styles in the region. The aim of designers of this center was inspiring from the traditional local architecture. Curved ceiling of halls, temples and traditional buildings are turned into contemporary expression and allow that in 21th century, the traditional ideas are also continued (www.dezeen.com/2013). This center without making any difference in urban texture has linked the city fabric and made it integrated. There are two main entrances in east and west and the west side is bounded to city center, river and park. On the east it is bounded to museum. The main façade as an attractive glass space invites people to theater. The complex models in fan of façade leads to adaptability with environment and artistic dramatic ground in urban space and also it leads to vital public space for the audiences.



Image 9-10. Center for Performing Arts, South Korea, Sejong, 2013 (www.dezeen.com).



Image 11-12. Center for Performing Arts, South Korea, Sejong, 2013 (www.dezeen.com).

Analysis: As it was said, for better perception of positive factors in each of samples and recognition of important factors, four main factors in each of samples are investigated.

Table 3.The investigation of effective perceptual, social and physical factors on vitality of urban spaces (Source, author, 2014).

Climatic and environmental factors	Identity components	Social and cultural considerations	Form features	Vitality factors
				Case sample
	Red chairs, curtains, lanterns interior, as good luck symbol, nylon orange sheet on roof inspire by ancient palace of Beijing forbidden city	Making the urban environment attractive for people by common symbols in the region	Using light colors, using elements of historical architecture of region as nylon orange sheet on roof	Cantonese operas in Hong Kong
Diverse coloring in various seasons of year based on the color of plants and nature on that time.	Attraction and participation of people in social activities, turning matrix lighting network to turning point of township, creating social events,	Improvement of quality of public spaces by security and attraction and high vitality for space, encouraging people with lighting, statues and spatial	Design of lighting matrix form network in the body and floor and attraction and variety, various views in day and night, safety at	New design of Finsbury Avenue Square

Evaluation of effective factors on vitality of public spaces of new cities with emphasis on identity concept

	meetings, music festivals and small sport matches.	variety for involvement in visual communication	night and using statue for more attraction	
Consistency with natural environment by complex models in fan of façade, considering connections, views, consistency in terms of topography with neighboring river of site	Integration of city fabric with form factor, invitation and improvement of collective morale, showing traditional and historical ideas of city with contemporary expression and some symbols of it	Respecting the life style and culture of the people in the region and inviting people to this urban environment. Good safety, various cultural and recreational centers	Form expression of curved ceiling, form of halls and temples in contemporary language in plan, using attractive and inviting glass façade.	Artistic performance center in Sejong, South Korea

4. CONCLUSION

As shown, the data of above Table show the review of literature and questionnaire. Briefly, we can say: Visual beauty, variety in spaces and applied colors in them, good lighting of spaces in all hours increasing safety and creating coherent structure from form aspects can invite more people to space and increase social interaction. Also, environmental consideration as physical security of environment and using natural resources of water and green space and consistency of plan with natural features of environment as coloring, lighting by being inspired of natural colors of seasons as observed in the second sample are effective natural factors. Finally, respecting historical and cultural values and holding matches based on different social classes and creating common social events for them can lead to high interaction among people and good feeling n environment and finally can be useful in identity and vitality of these new public spaces.

REFERENCES

- [1] Bently, A. Yen. Alkak. Allen, Morian, Pal, Macgeline, Su, Smith, Prahm. Translated by Behzadfar, Mostafa. 2012. Responding environments. Science and Industry University publications.
- [2] Behbudian, Saeed. 2011. Improving vitality in new cities via organizing public spaces with humanistic approach (case study: city center of Golbahar) (Thesis). Islamic Azad University, Tehran Markaz branch.
- [3] Pakzad, Jahanshah. 2005. The guidance of design of urban spaces in Iran. Plan and edition of Payam-e Sima, Tehran.
- [4] Pamir, Say. 2010. Creating vital urban center. Translated by Mostafa Behzadfar, Amir Shakibamanesh. Science and Industry University publications.
- [5] Tolayi, Novin. 2001. Ground in urbanization. Fine arts. Tehran University. No. 10. P. 34-43.
- [6] Jackobs, Jane. 2009. Death and life of big American cities. Translated by Dr. Hamidreza Parsi. Arezu Aflatuni, Tehran University publications. Tehran.
- [7] Charkhchian, Maryam; Daneshpour, Seyed Abdolahi. 2009. The evaluation of design components of responsive public spaces. Geography and planning (Tabriz University). NO. 30. 53-85.
- [8] Habibian, Seyed Mosen. 2006. New city a view for urban memory. The articles of international conference of new cities. Second VOI. Civil company publications of new cities. P. 145-151.
- [9] Rohafza, Fateme. 2011. Effective factors on quality of environment in public spaces of new cities (case study of new city of Parand) (Thesis). Islamic Azad University of Tehran Markaz.
- [10] Groter, Yurg Kort. Translated by Pakzad, Jahanshah, Homayun Abdolreza. 2011. Aesthetics in architecture. Shahid Beheshti University publications.

- [11] Leng, John. Translated by Einifar, Alireza. 2009. Architecture theory creation (The role of behavioral sciences in environment design). Tehran University publications.
- [12] Lynch, Kevin. 2002. The theory of city form. Translated by Seyed Hossein Bahraini. Tehran University publications. Tehran.
- [13] Majedi, Hamid; Zarabadi, Zahra Sadat, Saeede. 2010. City as grounded city. Journal of cultural researches. Third period. NO. 3. p. 1-21.
- [14] The concept of vitality quality in urban design. Korosh Golkar. Two journals of Safe. No. 44. Spring and summer. 2007, 66.
- [15] Gültekin Çizgen , (2012), Rethinking The Role of Context and Contextualism in Architecture and Design, Eastern Mediterranean University ‘September Gazimağusa, North Cyprus
- [16] Ilewelyn davies yeang, (1998) ,urban design compendium Sitte, C
- [17] <http://landarchs.com/revitalizing-londons-finsbury-avenue-square>, Cameron R. Rodman, May 19, 2014