



Restoration strategies of naghsh-e-jahan square to achieve social sustainability based on users visions

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ABSTRACT

Square is most likely the first among the urban spaces created by human. It is definite that the more the functional flexibility of square is, the more ability it will have to stimulate people from different ages and levels to come more often there. Unfortunately, removing public activities of the square in modern age has made it lose its main role in encouraging social delight, social-cultural, interaction and social solidarity. Naghsh-e-Jahan square is a trace of worthwhile squares in Iran that its unique role has been neglected because of irresponsible interventions. In the present research, descriptive procedure with case study had been used. People's priorities have been asset by statistical questionnaires consists of 10 questions. Questionnaires filled out by both locals (n=70) & tourists (n=35) in 2010. According to the criteria research and the results of questionnaires, socio-cultural & physical design recommendations are suggested for the future planning and designs in the square.

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Introduction

City is a live existence and a permanent image in the memory of the citizens who have been creating it for a long time. In fact, what evacuates quality and identity from modern cities and changes them into merely quantitative human-made phenomenon is development of improper attitudes and thoughts in the minds of contemporary designers in this regard. Their negligence of the important fact that historical cities, for a long time, had been the place culture and civilization emerged in and the base for development of human's identity led to formation of modern cities where people's incentive to attend in is lost in the horror of automobiles presence and congestion and where extend frustration and lack of identity to their residents.

It is clear that animation and dynamism is meaningful just in the continuity of human presence in variant urban sequences. City is where people are accepted in warmly and where spaces with the capability of developing public memories within it are provided in its organizing masses. Perhaps, it is unlikely to find competent replacement for images and memories of past cities. Buildings, monuments, bazaars, squares and all parts of the past cities have been a narrative language for social interactions of the past people and it seems as if modern human is unable to create counterparts for them. How it is possible to call a city whose historic memory have been lost a city with consistent and legitimate identity? Many of cities today are similar to each other in many aspects and their distinctions are being destroyed in urban disorder and repetitive images.

Isfahan, a city in central regions of Iran, is among these historical cities. The city, due to its unique values and distinctions, was titled as the cultural capital of Islamic world in 2006. This opportunity could have been a basis for variant cultural and tourism events to happen in it. However, variant organizations applying management in the city lost the opportunity of promoting the quality of the urban spaces,

improving the conditions of historical buildings and spaces and solving the problem of air pollution in the city. In fact, the city lacked designs, programs and events which could have occurred and illustrate an animate sustainable image of the city for the visitors who recognize Naghsh-e-Jahan square in the city as one of the most beautiful squares in the world. However, is it enough just to title what the ancestors have left as "heritage"? And, Shouldn't we revive this valuable heritage and consider them with the definition of "wealth"; a live producing wealth and not a forgotten secluded heritage; the wealth to which should be added everyday and not the one left alone and lost from the memories?

Unfortunately, public fields in historical cities which can act as live nuclei of modern cities have been forgotten in the lack of appropriate policies and managements and Naghsh-e-Jahan is a prominent example of the negligence happening in Iranian cities. While this square could have been an important driver for sustainability in Isfahan, the city it locates, it suffers lack of public presence of people due to not having flexibility and adaption to modern needs of humans and unfortunately, it is just its historical attractions inviting tourists to the internal space of the square and not its unique social capabilities. The governing viewpoint to the urban public spaces modifies just when events like live music performances, congregations, cultural exhibitions, etc. break the silence of the historical spaces and the space of the square is defined as a place for eyes to meet within. To study how to promote the social quality of Naghsh-e-Jahan square to a prominent public cityscape, a definition of social sustainability and public cityscape will be discussed first so the criteria of social revival in this square could be achieved.

Method of study

In the present research, descriptive procedure with case study had been used. At first, in order to access the theoretical basis of the study, necessary terms such as social sustainability

& cityscape have been defined. Library documents and printed sources are analyzed; then, suggestions for social sustainability principals in historical squares, presented by evaluation and emphasis on people's priorities to come to public cityscape of Naghsh-e-Jahan square. People's priorities have been asset by statistical questionnaires consists of 10 questions. Questionnaires filled out by both locals (n=70) & tourists (n=35).

Sustainability, Society & Cityscape

Social Sustainability

"Sustainable development is defined as meeting the needs of present generation without compromising the ability of future generations in meeting their needs" (Mccarthy, 2003). The common aspect of different definitions of sustainable development and its traits presented "is protecting the environment as the base of development and this happens in the mutual relation of the economic, social and environmental aspects of sustainable development" (Perank & Mahboobolhagh, 2001).

In general, ten characteristics are considered as the characteristics of sustainability: "self-sufficiency, environment improvement, and pollution decrease, spatial concentration, respecting human needs, flexibility, and efficiency of resources, diversity, distinction and supervision" (Carmona, 2003). In fact, supervision, efficiency of resources and self-sufficiency are defined in the framework of economical sustainability while diversity, human needs and flexibility, spatial concentration and distinction are included in social sustainability. Environment improvement and pollution decrease are characteristics that make environmental sustainability possible.

Today, one of most challenging concerns of urban designers in creating public spaces is achieving kind of a public cityscape capable of making sustainable balance between urban spaces and its natural context; "a social self-sufficient cityscape capable of funding its expenses and moving toward sustainability. These three categories (Environmental, Economic and social) are known as general aspects of sustainability. Sustainability in urban spaces is defined by the resistance of its consisting elements against erosion and demise and at the same time, preserving its social efficiency and cultural richness. If a public cityscape could survive as live space in the city after years and people visit it regularly, this is a verification of its sustainability" (Pourjafar, Bemanian, Ahmadi, & Sadeghi, 2011). All people who are present in the society are social assets of that society. Sometimes, development leads to improvement of these assets or to destruction of them. Thus, a territory could be considered developed if it has achieved levels of development in terms of socio-cultural attributes. So, considering development in socio-cultural perspective, one can say development is equivalent to achieving social equity.

Therefore, if we want to achieve an inclusive plan for stabilizing the presence of different social levels of society in the urban spaces, we should first identify the users whom we are addressing and their needs. The authors of this paper emphasize using the characteristics of social sustainability in the design of public spaces. It is clear that social sustainability in the context of civil society is just achievable through respecting humans, emphasizing their right to choose and providing their different needs.

Public Cityscape

The term "public" is defined in encyclopedias with several phrases like "maintained for or used by people or a community

as a whole", "A group of people sharing a common interest" and "Connected with or acting on behalf of the people, community, or government". Based on these definitions, a public street belongs and associates with all people as a whole, is open to all of them, has an unconfiding existence, is offered by the government and is related to it (Madanipour, 1996). At the same time, Francis Tibbalds (2001), in his definition of public cityscapes in "Making people-friendly towns", points out those public cityscapes are the most important part of the cities and urban environments. Most contacts, relations and interactions between humans occur in these spaces and these spaces include all parts of urban setting that people have physical and visual access to (Tibbalds, 2006). Walser also believes that public space is space which we share with strangers; people who are not our relatives, friends or colleagues. It is a space for politics, religion, trade, sport and space for peaceful impersonal non-individual interaction (Madanipour, 1996).

However, improving the quality of these public spaces based on perception and behavior of citizens is the task of the knowledge of urban design. The core of urban design discussions is quality (Pakzad, 2007); a quality that meets the spatial expectations and qualitative and psychological needs of citizens. This quality is appeared in the sense of place, union and, generally, in the identity of that space. In cityscapes, the potential information of the environment are perceived by the human and transformed into a sensible quality. The amount of an individual's perception of environment is dependent on his/her mental capacity and capabilities and environmental condition and capacities. Thus, cityscapes are perceivable aspects of urban environment which have layers of form, function and content. Public cityscape, too, is part of cityscape inviting people to challenge of interaction and is also a social challenge that differentiates between a public space and a public cityscape.

After 1970's, a new approach appeared regarding the urban design and preserving the identity in public spaces which focus on animating the urban environments and improving the attractions of historical contexts (Pakzad, 2007). Considering humans presence and their social interaction and even attempting to replace the cityscapes serving automobiles with spaces which are more humane are the great values of these approaches. Unfortunately, after years passing from these changes of approaches to urban space, which is the setting for participation in civil society, Iran is still facing the growing negligence to public spaces and inattention to preserving the familiar and worthwhile historical spaces of the cities.

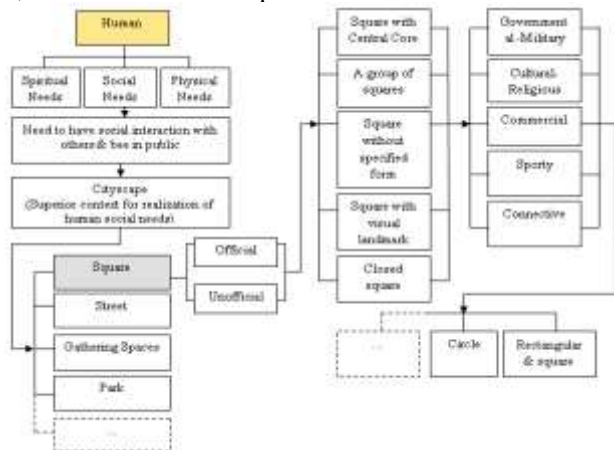
In a public cityscape, different interests of humans and their needs including physical, social and spiritual needs are responded. People participate in these spaces to interact with others with whom they are not familiar and to meet their physical and spiritual needs. Therefore, public cityscapes developed based on the cultural characteristics and national indigenous identity of each region, to create animate spaces which are enriched in diversity, not only repeat the memory of presence in these places in the mind of visitors but also contribute to the public participation in preserving these cityscapes and their beautification and sanitation.

Public spaces could be manifested in squares, parks, streets, gathering places, and such like. Among them squares "are open spaces in a certain field developing between architectural structures and the network of routes" (Soltanzadeh, 2006). "They are defined by three-dimensional vicinities of floor,

envelopes and the ceiling of sky and are actually a silence among unbroken traumatic rhythms of cities” (Falamaki, 2005). It should be mentioned that various geographic, topographic factors, climate, culture and the customs of society have been influential on developing the squares. Also, their physical form has been changing by recent styles in architecture and urbanism (Graph 1).

In historic city of Isfahan, Char-Bagh Street and Naghsh-e-Jahan Square are two basic and prominent types of urban public cityscapes. It should be noted that Naghsh-e-Jahan Square carries a great historical cultural burden in the definition of Iranian urban spaces.

This space as a cityscape can respond appropriately to the sustainability of its context, neighborhood and even the city. Morphologically, this square has rectangular form. The dominant functions of the square are cultural-religious, governmental and commercial. From the aesthetic points of view, it located in closed squares.



Graph 1: Typology of squares (Authors with using fundamental theories of the research).

Naghsh-e-Jahan Square

“Naghsh-e-Jahan Square (constructed between 1598 and 1629) is a worthwhile inheritance of the past and one of UNESCO's World Heritage Sites.

Recorded as a live witness of the life of the past people and as a dynamic equilibrium of different elements in the mental memories of citizens, the square has developed based on a particular philosophy and ideology grounded in a rich culture and spirit of its unpretentious creators. Inspired by previously-built historical squares (Saheb-Alamr Square in Tabriz, Atiq Square in Isfahan and Ali-Qapu Square in Qazvin), it has been built in a north-south organization in the downtown in the Safavid period (1501-1722), culmination period of Iranian art and architecture” (Pirniya, 2002 & Honarfar, 2004). Visual breadth of the square and, at the same time, its governing proportion (as 1 to 3; 160 meters wide by 508 meters long) liberates the visitors of the feelings of being mentally enclosed and captured and always narrates, through its hidden layers, the sequences resulting from the various positions and images to be experienced by visitors.

The presence of these hidden contents and the animation of the square due to its different religious, political, cultural and social spaces invite people to visit it frequently and achieve meanings in it not experienced in their former visits.



Figure1. 19th century drawing of Naghsh-e-Jahan Square, drawn by Pascal Coste (<http://en.wikipedia.org>)



Figure2. Naghsh-e-Jahan Square, viewed from north toward south, (<http://archnet.org>)

What distinguishes “this square from other historical squares is the firm presence of Imam (Shah) Mosque in south, intricate design of Sheikh-Lotfollah Mosque in east, Ali-Qapu building in west and the gateway of Qaisarieh Bazaar (as a dominant symbol of live routes of Islamic cities) in north of the square and visible from all sides. For instance, Saheb-Alamr complex in Tarbiz, Iran is among the first historical square which was the settlement of government during the dynasties of Jahan-Shah UzunHassan and Shah Tahmaseb of Safavid. Despite it has been designed with a military function and for the parade, it has had various political, cultural, military, economical and sport uses. This square is of the first Persian squares which could cease the lack of urban open spaces in the urban development system of Iranian cities for several centuries. This square lacks any ordered design in terms of shape and form and is defined just by the architectural elements like mosque, palace, bazaar, hospital and church in the space around it” (Hanachi & Ebrahimi, 2006).

Ali-Qapu Square, Qazvin is another example. The square is the result of idealistic attitudes toward art and architecture in Safavid period in Iran which leads to the design of the square with the proportions of 1 to 3 in vicinity of the Bazaar and far from royal palaces in the period of Shah-Tahmaseb in Qazvin. The continuity of stone columns in square and, at the same time, governing proportions of the square made the internal space suitable for polo. While the square has experienced many physical and organizational changes passing the time however, recreational, social and tourist attractions has kept this space as a live dynamic space yet.

The last sample, Atiq Square, Isfahan is considered as the competent start for development of Naghsh-e-Jahan square, which has been formed with an area of 5 acres in the downtown. Harmony of the elements with various social, governmental, economical, religious and cultural functions like bazaar, congregational mosque, Saljiqi castle, royal palaces and buildings, Madras and Minatare of Ali, Nezamol-Molk tomb, Sultan-Sanjar Madras and Harunieh complex around the square

gives a valued credit to it and changes it to a prestigious masterpiece of Saljuqid dynasty. Atiq square, too, like many other historical squares of different periods has lost its social, political and governmental function.

By studying the historical squares which have been influential in the development of Naghsh-e-Jahan Square, it is clear that squares of historical cities have often been without a predetermined geometric design and their internal space were created by defining the envelopes surrounding it. These spaces often located in front of the city gateways or special places in the city and became a basis for development of religious, ritual, cultural and sport events or a place for caravans and commercial trades.

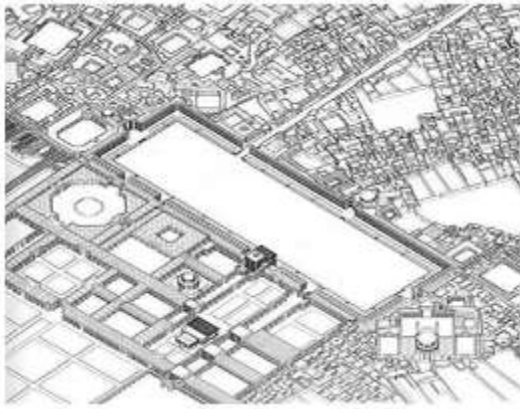


Figure 3. Aerial View of the Naghsh-e-Jahan Square, Original Plan (<http://archnet.org>)

Current public cityscape of Naghsh-e-Jahan square

As mentioned before, Naghsh-e-Jahan square reminds historical squares of the past and is among the few remnants of these squares in Iran and a live pattern for Iranian public spaces that has been developed with a predetermined proportions and design in an urban scale. But, what problems do threaten the existence and quality of this square today? Do the criteria of social sustainability are considered today in this square? Does this square use its cultural social potentials in order to gather people in an urban space? And, is this square in the ideal safe condition it deserves?

It should be noted that, regardless of various restoration issues of the envelopes and the buildings surrounding the square, the authors of this paper concern more the internal space of the square and its permanence and efficiency in the contemporary life. Considering recent studies and observations, the following problems are among the important dilemmas this square faces now:

1. Poor social interactions and reduced public presence in the square due to the lack of appropriate regional and national planning and urban cultural programs in order to invite the present human to its space.
2. Lack of definition for new functions in its envelopes which can attract people and visitors more.
3. The presence of automobiles in the square which damages the cityscape of the square and causes air and noise pollution and inappropriate destructive effects on the buildings and vibration of them.
4. The pool and green space located in the middle of the square have been designed with a western pattern without much attention to the local principles. These elements not only damage the square's function but also, are unable of providing comfort for the visitors.

5. The boundary of square skyline being invaded due to the modern developments and the square urban appearance being faded.

6. Lack of strong distinct connection between the square and historical fabric surrounding the square which appears mostly in the distinct routes leading to square and pedestrian routes to that.

7. Lack of proper attention to the importance of the square's main axis (from Qaisarie to Imam square) and creating physical and visual obstacles (pool, police station, information billboards, etc.) along this axis.



Figure 4. Green space in Naghsh-e-Jahan Square, 2010 (Photo by Authors)

Questionnaires & Interviews

In order to get aware of the viewpoints and attitudes of the users & visitors of the square and achieving strategies for reviving qualities of the square based on the research done, a questionnaire was prepared based on the questions that were arranged in order to evaluate the role of two parameters of social- cultural activities and physical design in reviving the square in 2010. The questionnaire consists of 10 questions. From these questions, 9 of them were multiple choices while the last one was an open end question. Questions aim to evaluate visitor's tendencies & interests. Statistical society divided to 70 locals and 35 tourists (10 of them, present in the site and 25 of them were selected from those who had been experienced the square at least one time by random and filled out the questionnaires by e-mail). Tables 2 & 3 had shown the results.



Figure 5. Social interactions in Naghsh-e-Jahan Square, 2010 (Photo by Authors)



Figure 6. People in Naghsh-e-Jahan Square, 2010 (Photo by Authors)

Discussion and Proposal Strategies

The results of the questionnaire distributed between locals and ordinary visitors & tourists are as follows:

- a) The most attractive elements of the square for visitors in Naghsh-e-Jahan Square are Sheikh-Lotfollah Mosque in east side of the square.
- b) The main axis which attracts people is the axis moving from Imam Square toward Qaisarieh Bazaar.
- c) The majority of people prefer to sit and rest in the square, in a place like around the pool, for a while.
- d) The majority of visitors questioned stated their dissatisfaction of the pavements and furniture in the square.
- e) Visitors prefer to see ornamental shrubs in the green space of the square more.
- f) Most of people questioned pointed out that mental memories and unique attractions of the square are the factors which causes them to visit it frequently.
- g) Most of visitors demanded cultural events to be held in the internal space of the square.
- h) Most visitors believed that adults form the main group visiting the square.

Based on the cultural values of this square appearing in its identity, technical, artistic, economical, social, functional, educational and even political values, this square have been registered in the list of the world cultural heritage and thus, there are special guidelines and recommendations for maintaining and reviving these types of sites. For a deeper discussion, a brief explanation of the maintenance and revival management of these sites is brought here.

- In terms of the management of world heritage sites, it should be noted that planning, design and budgeting is a continuous process that should be reviewed and updated regularly (Hanachi, 2006).
- Preserving and maintaining historical buildings and fabrics and reviving their identity and social and cultural functions is as basic elements in the life of today's cities.
- Congested presence of automobiles in the spaces not prepared to accept them cause's different pollutions and destructive vibrations as serious threats for historical fabrics and sites.
- Restoration and revival of historic fabrics of the past cities should be done not only through the cultural historical concepts but also through the social economic ones.
- Inclusive preservation of historical sites implies creating and presenting of new public services in accordance with modern needs and with keeping all social cultural values remained from the past in these sites.
- In reviving historical sites, attention to various interests of visitors, attempt to create safe clean spaces by presenting historical cultural images of the region cause these spaces to be visited frequently and kept in the minds of visitors. These sites give a basis for defining a mixture of new social, commercial and recreational activities.

It is obvious that changes in culture and customs of people through the time, transformation of trade mechanisms, changes in the type of places in which athletic and governmental ceremonies are held and finally, the changes in people's attitudes toward recreation and joy have been important drivers making distance between people and historical cityscapes.

In past, there were trees with their shades in Naghsh-e-Jahan square and stream running around the square. This stream with the width of 3.5 meters and depth of 2 meters branched from the main water channels in the city and created great

beauty and comfort in the square. This stream is buried now and the vegetations are also in poor condition. Reviving the public presence in historical sites like Naghsh-e-Jahan Square is possible just through the social revival and cultural restoration of the square which makes physical design of the square inevitable. Thus, two parameters of social, cultural revival and physical revival are vital to reviving this square.

According to the criteria research and the results of interviews, following table of recommendations is suggested for the future planning and designs in the square.

Conclusion

Historical cities have traditionally been the base for social interactions, events and costumes. These social interactions have existed in all parts of the cities from the streets in districts to the main urban squares. In addition, these unique characteristics and their spatial organization have provided closeness among citizens and thus, made animate narrations of urban image understandable for them.

It should be noted clearly that among the most important drivers prohibiting the citizen's incentive for public presence and ignoring their social needs is negligence of contemporary city to the strong bonds of citizens with historical cityscapes as the symbol of local culture and identity. As a matter of fact, this negligence has caused historical cities, once the place human integrity emerged in, to be forgotten and their animate kernels, where were the place of "meeting" for humans, to be buried in isolated layers of our minds.

Therefore, designers and officials must emphasis in rehabilitation of public cityscape of the square, which formed by commercial, social, cultural and natural investments during decades. It should be noted that aiming this goal could be possible by sustainable designing based on current and future needs. Restoration process of these kinds of cityscapes has been shown in graph2.

Naghsh-e-Jahan Square is among the most worthwhile of live masterpieces of architecture in Iran which has been able to preserve its past functions till now. The design of this square originates from Atiq square in Isfahan, Saheb-Alamr Square in Tabriz and Ali-Qapu Square in Qazvin and considering the elimination of these squares, its importance and value is doubled.

This square faces several problems including pollution (due to the automobile traffic within the square), lack of adaption and flexibility to modern needs, lack of stimuli for public presence and lack of comfort resulting from improper use of furniture and design within the square.

Also, reduced importance of the main axis of the square due to obstacles such as pool, police station and information billboards have caused decreased view of the visitors along the north-south axis (Qaisarie to Imam Mosque).

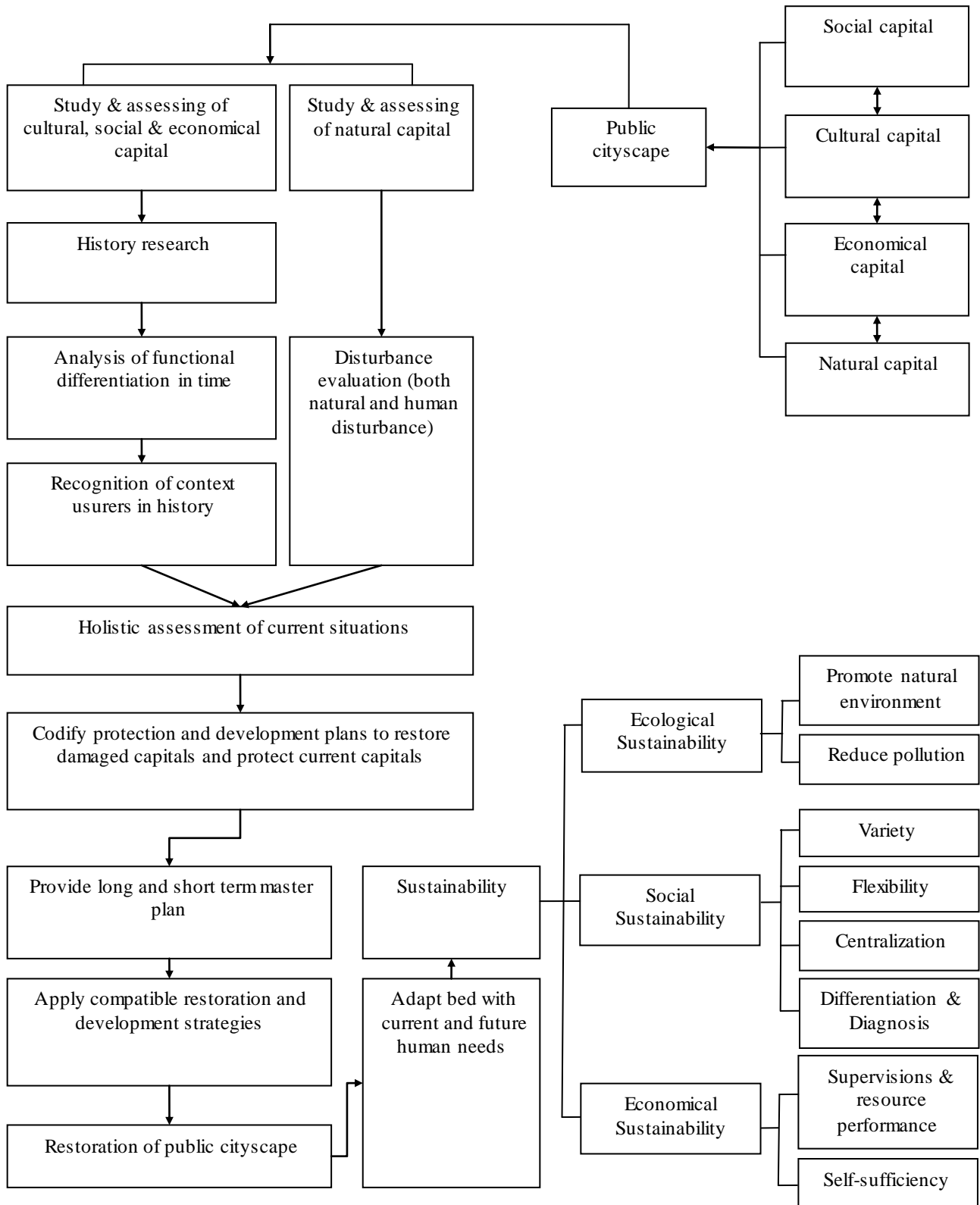
Moreover, its skyline invaded by modern developments and high-rise buildings and simultaneously, the broken organization of the square due to modern streets and removal of animate social urban events from its internal space of have caused Naghsh-e-Jahan square lose its spatial coherence.

Therefore, the urban management and designers should try to address mental and material needs of the visitors of this cityscape through increasing the animation and vitality of this cityscape by creating flexible various spaces, holding cultural, social and religious events.

It is clear that this would be feasible just through the attention to various aspects of this identity which appears in its

functional, environmental, cultural and content identity. This integrated identity, quality that makes this square distinct from

other squares, should be revived through socio-cultural and physical revival of the square.



**Graph2: Cityscape restoration in the case of sustainability
(by Authors)**

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Reference

Carmona, M. *Public places, urban spaces*. architectural press, 2003.
Falamaki, M. M. *Urban Renovation and Reformation*. Tehran: Islamic Culture, 2005.
Hanachi, and Nejad Ebrahimi. "Reviewing Sahib Abad Square On The Basis Of The Charden's an dMetraqche's Picture and OF The Historic Documents." *Fine Art Journal*, 2006.
Honarfar, L. *Isfahan*. Tehran: Scientific and Cultural Publications, 2004.

Madanipour, Ali. *Design of Urban Space: An Inquiry into a Socio-Spatial Process*. London: John Wiley & Sons, 1996.

Mccarthy, B. "Sustainable Landscape." *Iranian Architecture Journal*, 2003: 30-40.

Pakzad, J. *Theoretical Basics and Process of Urban design*. Tehran: Shahid Beheshti University Publications, 2007.

Perank, J, and Mahboobolhagh. "Backgrounds of sustainable development." *Environmental studies*, 2001.

Pirniya, M.K. *Islamic Architecture*. Tehran: Tehran University of Science & Technology, 2002.

Pourjafar, M, M Bemanian, F Ahmadi, and A Sadeghi. "Environmental Quality Improvement of Natural Landscapes with Emphasis on Sustainable Landscape Designing Principles." *International Congress of Environmental Research*. Surat: Accepted for, 2011.

Soltanzadeh, H. *Urban Space in Historical Contexts of Iran*. Tehran: Culture and Atchitecture Press, 2006.

Tibbalds, F. *Making People-friendly Towns*. Tehran: Tehran University Press, 2006.

**Table1. Ten characteristics of sustainability divided into three general categories
(Authors with using (Carmona, 2003)).**

General aspects of sustainability	Characteristics
Social	Diversity, respecting human needs, flexibility, spatial concentration, distinction
Economical	Supervision, efficiency of resources, self-sufficiency
Environmental	Environment improvement, pollution decrease

Table2. Locals & tourists' tendencies & interests emerged from Multiples questionnaires

Multiples Questions (1-9)	Results (L=%Locals, T=%Tourist / N _L =70, N _T =35)									
	Gateway of Qaisarieh		Imam Mosque		Bazzar		Ali-Qapu building		Sheikh-Lotfollah Mosque	
Which parts of the square in your opinion is more attractive?	L:10	T:14	L:12	T:8	L:20	T:8	L:6	T:8	L:52	T:62
Walking throw which axis of the square is more enjoyable for you?	Longitudinal Axis		East Side		West Side		In the middle around the pool			
	L:60	T:75	L:20	T:5	L:12	T:15	L:8	T:5		
In which part of the square you more wish to sit?	Longitudinal Axis		East Side		West Side		In the middle around the pool			
	L:20	T:30	L:10	T:5	L:20	T:10	L:50	T:55		
How is the square flooring in your opinion?	Weak		Medium		Desirable		Most desirable			
	L:75	T:85	L:10	T:5	L:10	T:5	L:5	T:5		
Which kinds of vegetations do you recommended for the square?	Grass		Bush		Ornamental Shrubs		Shade Tress desirable			
	L:20	T:20	L:10	T:5	L:60	T:70	L:10	T:5		
Which of the mentioned elements more encourage you to inter the inner part of the square?	Image		Historical Attraction				Both			
	L:20	T:10	L:20	T:85			L:60	T:5		
What is your satisfaction degree about square urban furniture?	Very low		Low		Medium		Very much			
	L:50	T:70	L:30	T:20	L:15	T:5	L:5	T:5		
Which kinds of functions could be added to inner space of the square according to develop its usability?	Sporty		Cultural-Artistic				Religious			
	L:0	T:0	L:55	T:100			L:45	T:0		
Which kinds of age groups in your opinion, more use the square?	Children		Youth		Adults		Elders			
	L:0	T:10	L:10	T:10	L:80	T:60	L:10	T:20		

Table3. Locals & tourists' tendencies & interests emerged from Open end question

Open end Question (10)	Results ($N_L=70, N_T=35$)			
	Local		Tourists	
	n	%	n	%
<i>I don't like to carve my name in the square.</i>	7	10	0	0
<i>In the entrance area of Imam Mosque</i>	10	14	3	8.5
<i>In the entrance area of Sheikh-Lotfollah Mosque</i>	25	36	5	14
<i>Beside of Qaisarieh Bazaar</i>	3	4.5	5	14
<i>Beside of Ali-Qapu building</i>	3	4.5	2	6
<i>In the flooring of eastern side</i>	5	7	0	0
<i>In the flooring of western side</i>	10	14	0	0
<i>In the flooring of different parts of the square</i>	7	10	8	23
<i>No memories should be recorded</i>	0	0	10	28.5
<i>On the stone located in different location of the square's wall</i>	0	0	2	6

Table4. Proposed strategies for reviving Naghsh-e-Jahan Square

Revival	Criteria
Socio-cultural	<ul style="list-style-type: none"> • Holding cultural and religious events, theater and Persian performances and music concerts in the internal space of the square. • Reviving the role of Bazaar as the life vessel of the square. • Defining different and new functions in Bazaar such as restaurants, cafes, etc. • Holding national ceremonies • Holding athletic events like polo and reviving other Persian games in the square
Physical design	<ul style="list-style-type: none"> • Flexible multi-functional design of the internal space with the approach of creating a gathering place. • Designing movable and seasonal awnings for both summer and winter. • Furnishing benches and other appropriate furniture. • Increasing pedestrian routes and complete elimination of automobile in the internal space of the square • Pavements appropriate for functions in the square. • Reviving the stream around the internal space of the square. • Eliminating the visual obstacles across the square. • Physical reviving of the axis from Qaisarieh to Imam Mosque (eliminating pool, etc.)