

## The Role of Physical-Visual Identity Architectural Elements of Historical Neighbourhoods as Factors for their Sustainability

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### Abstract

Historic fabric of cities with ancient backgrounds possess high potentials and it must be reclaimed along with paying attention to flexible bases of localism. Urban dwellers, with wide requirements in recent times are seeking for satisfaction in such historical places. Urban historical areas should meet the public values within cultural frameworks and aesthetic experience. Every city consists of material and spiritual values, which are formed in a physical space as a precious asset, so identifying these values and making them into identity elements need a comprehensive plan based on the city's cultural and historical background. Therefore, disparity in designing and building new buildings near old texture, makes disparity in city perspective and causes lack of identity. Methodology of this research based on qualitative analysis with case study of Imamzadeh Yahya in region 12 of Tehran metropolitan city, for collecting information and data using library, literature review and interview with expert Then, the SWOT analysis matrix was used for data analysis and presentation of neighbourhoods as factors in heritage areas in Imamzadeh Yahya. This paper explores physical-visual elements related to city perspective and people's perception. This paper is of relevance because the city perspective and people's perception have a significant role around the quality component of historical urban fabric in making a desirable visual identity. Our case study is the surroundings of the historical neighbourhood of Imamzade Yahya in the Iranian capital of Tehran.



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### Introduction

Historical urban areas. Having cultural values, is a part of social identity and is the identity of every country. This texture is a memorial of old people and must be preserved like a precious cultural treasure. In other words, historical centres require special

attention for its value, proximity to city identity and remembrance. Features of open urban spaces, particularly central spaces such as plaza situated at the core of historic city, are directly related to rising selected activity and definition of access route networks<sup>1</sup>. Nowadays, the erosion and destruction

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of historical fabric of Tehran including Tehran Bazar and Imamzade Yahya (because of their significant role in developing the historical paths in the city and making a new perspective) is a big threat to eradicate its sustainability. Therefore, more attention must be played to historical texture and there must be attempts to prevent any disparity in their view and destruction of their texture. Therefore, in order to attain suitable city perspective and preserve Islamic culture, we must deal with city perspective problems with expertise to recognize the solutions of known problems<sup>2</sup>.

### Methodology

The qualitative research strategy through case study has been employed by inductive approach in this article. The needed theoretical bases are prepared using published literature. Historic interpretive strategy has been taken to determine historic potentials in this place. Using SWOT analyses,<sup>3</sup> for assessment of strengths, weaknesses, opportunities and threats historical neighbourhood of physical-visual identity elements, to achieve the sustainability in order to establish a balance between aspects of sustainable development and improve heritage awareness for now and the next generation.<sup>4</sup> In this way, the research approach offers assistance in managing and mitigating the impacts on architectural elements of historical neighborhoods through regeneration and conservation based on neighborhood sustainability aspects. These strategies may be generalized for other parts of the urban areas in Iran, to achieve a balance between urban growth and traditional neighborhoods, and between technological culture and environmental sustainability of the historic urban heritages.



Fig. 1: place location (Source: Authors)

The case study of Imamzade Yahya that is a historical area in Tehran. And it is located in west of Abshahr, east of Arg and northeast of Bazaar. Latitude is  $35^{\circ} 40' 46.2''$  ( $35.6795^{\circ}$ ) north and with Longitude of  $51^{\circ} 26' 3.9''$  ( $51.4344^{\circ}$ ) east. Imamzade Yahya has an elevation of 1,152 meters (3,780 feet). The neighborhood around Imamzadeh Yahya is the most concentration of historical sites. The Imamzadeh itself is a 13th century marvel topped by a deep turquoise cone, and visiting the shrine offers insight into the role of religious spaces in contemporary Iranian life<sup>5</sup>. That is chosen for its physical appearance as both historic and contemporary architectural elements, its Space identity, its land use patterns and heritage context, as well as all other physical-visual identities. It could be a good new model based on heritage conservation policies and practices in order to improve sustainable neighborhoods, and the quality of urban life in heritage areas.

### Space Identity, City Identity, Neighbourhood Identity

Every recognizable place, has its own content and pattern and relationships which is expressed in that place's soul. Recognizing it is done through using the space's symbols and signs, and improves culture, collective memory and space's identity<sup>6</sup>.

Space's identity is a part of person's identity. Space's identity develops through direct relationship with physical environment. Therefore, it is a reflex of the place's social and cultural aspects, and also has a significant role in person's characteristic richness.

#### Piran Notices Some Points About City Identity

1. Identity is nothing than the collective memory of city inhabitants and a city without memory, lack identity.
2. Identity is the positive reflex of total city in the eyes of observer, and is the result of the transaction of eye and mind.
3. It is the result of social interactions inside the city which has its own form<sup>7</sup>

In today's city, neighborhood has a special place to attain sustainable development and is the most fundamental element between city and the inhabitants. Every neighborhood and its daily need makes some symbols which causes some attachment for its inhabitants, so that every person

is known with his/her neighborhood name. Lynch believes that a neighborhood with identity is one which is distinguished to other neighbourhoods<sup>8</sup>



**Fig. 2: Identity and its effective indexes**  
(Source:<sup>9</sup>)

### Sustainability and its Concept

Sustainability means to meet the current needs without removal of potentials in next generations in fulfillment of their requirements. Today, term 'Stable' is widely used for international description in which human and natural systems are able together to continue their life until far point in the future. The sustainability paradigm is still perfectly new and perceiving of concepts and way of application of this term is still being formed. The other synonymous term to stability is vitality or survival. These two terms are completely related to each other since in both terms it is tried to develop such type of urbanism that can improve welfare level for citizens in long run. But, it has been only during some recent decades that term 'stability' with its current meaning has been employed that is 'what it can be continued in the future'<sup>10</sup>.

Sustainable city will be able to survive in long term because of using optimal consumption of energy resources, avoidance from extravagance and production of wastes, recycle of wastes as possible, and execution of useful policies and plans. The stable city has lesser energy consumption and fewer wastes with controlled pollutions.<sup>11</sup> Prioritization for recycling of buildings, places, infrastructures, and

network of historic passages and their alignment with the new conditions and requirements are especially confirmed.

Falamiki has considered sustainable development as a great motivation to architectural modernism:" in the final years of the twentieth century, ecosystem architecture has been emerged which considers shape, relations and base of life cycles or ecosystem as the starting point of study and the end point of designing. In one hand, architecture appears with all of its requirement to be survived and sustainable and in the other hand, all knowledge are uttered which deal with nature with their special form<sup>12</sup> Continuity of historic settings is deemed as main objective for any country and these urban fabric are considered as most crucial points of the city that includes civilization and culture of any country and at the same time the subject of stability and stabilization and renovation are assumed as the prominent issues for these fabric. What it deems as important, is that these fabric are not conserved only in order to preserve culture and civilization and submersion into the culture and form of texture and these historic fabric represent the lovely objective similar to a full-height mirror and introduce and assess the human in the past and grant sense of belonging to place to modern human.

### Primary Components Influencing Sustainability

According to Sustainable Development Approach, form development and cultivation in past texture may be stable when it can meet economic and physical needs as well as social and cultural and mental requirements of people at present and in future. Accordingly, lands possess material, spatial-functional, aesthetic, and practical properties and features that should be basically taken into consideration in urban planning. According to this paradigm,<sup>13</sup> it is believed that although formative, economic, social, and environmental reclamations are related interactively together, economic renovation may be assumed as functional aspect and guarantee for formative and social reclamation but not in this way that is led to removal of historic- social identity in traditional cities.

This important measure should be planned within framework of the codified strategies and or realized within this form in order to preserve historic, cultural, social, and environmental aspects<sup>14</sup> Theory of definition and protection from boundaries of

an environment is one the defensible principles mentioned by Oscar Newman; in other words, by control of strangers and consequently by being secured from risk of crime. While this action may be efficient in prevention from crime, it may potentially increase social segregations and monopolies (exclusions)<sup>15</sup> The economic factor is the paramount factor in creating types of uses and functions. Recognition of social interests and type of lands ownership may be efficient in our orientation toward reality. The main objective for execution of economic studies is the awareness of economic composition, assessment of economic life, and prediction of economic future status in site thereby one can predict growth and development backgrounds and imagine its spatial and formative embodiment in appropriate form (Baharini, 1998).



**Fig. 3: Sustainable city and its effective indexes (Source: Authors)**

#### **Physical Components-Visual Identity Stability of Neighbourhoods**

Culture creates behavioral patterns and also pattern determines way of using spaces by people. Therefore, way of using street is different in various cultures so that in some of western countries strolling and walking in street is deemed as unfavorable and suspicious and mainly they are influenced by two cultural and environmental factors where the rate of their impact is not identical to behavioral patterns<sup>16</sup> Pedestrian movement is preferred to other forms of human displacement in environment in terms of history and importance. Similarly, sense of belonging

(attachment) to environment and discovery of environmental qualities and its latent values and attractions are considered as the foremost possibility for perception of spatial identity. Civil life of city usually flows in a place through which the pedestrian has passed and the related measures are generally mentioned at pedestrian's scale. Biocanen assumes freedom for pedestrian movement through cities and urban spaces as a good sign for civilization at that city and presence of sidewalks as symbol of civilization, and civil culture and identity of the given city since the freedom of action is too high for human in sidewalks including stop, change in direction, pause, and direct contact to others and this may essentially impact on renovation of historic fabric. Urban design should be able to realize formative-spatial embodiment of solutions and requirements of communities in all cultural and social levels and fields and create significant space and form for cities. Form and matrix of city should create healthy, active, and meaningful environment based on cultural heritages of past time in order to realize the highest goal of city i.e. creating a human environment with high values<sup>17</sup> and convert it for seeing and being seen and extract culture and history out of the core of these social interactions.

#### **Identity and Sustainability**

According to the Global Environment Commission's definition, sustainable development is the kind of development which fulfils today's need without lacking responsibility in the future Therefore, a city or neighbourhood is sustainable in which the inhabitants are responsible to the next generation. This is possible if a person has a good relationship with environment. In this way, she memorizes the symbols and prevents anything that causes any disruption in that memory. The same people can design plans in which today and future needs are fulfilled.

Investigating some factors like improving life quality and visual factors of architecture and historical patterns which influence city sustainability, we can reach this approach that improving life quality of historical neighbourhoods will not be possible if there is no close relationship between that and the country's art and culture.

Regarding what we mentioned, we conclude that sustainability and its components lead to survival and making identity and richness.



### The Necessity of Paying Attention To Physical-Visual Components Making Identity as a Factor for Sustainability

Physical-visual components are factors for city and neighbourhood sustainability in different times and lead to cultural sustainability.

Mentioning the concepts of symbols and horizontal line and so on is for that, any change in these, causes the perspective to be different in the eyes of inhabitants<sup>18</sup>.

By symbols we mean elements which give information visually, and this information guides the observer into city elements and to distinguish it from other cities. Symbols in fact, refer to that aspect of city identity which is equal to human identity. Symbols are information which our eyes receive from outer world and these receiving influences his perception of environment.

Regarding what we said, we conclude that sustainability and its components leads to identity survival and sustainability and richness.

### Formative-Visual Analysis on Imamzadeh Yahya Route

Despite of the exerted change and development over the time in this area especially by widening of main passages around the limit of Imamzadeh Yahya path, the link among this path was disconnected to *Chaleh Meidan Locality* at south and *Oudalajan Locality* at east. In spite of negative points which were followed by widening and elongation of motorway streets and path for automobile motion in this old texture and undermining of role for some

of subordinated localities, Imamzadeh Yahya Route and its surrounding area has been still secured from stresses of development and functions of Tehran Market (Bazar) and continued to survive and maintained its past role as a local-urban element. According to Figure 1, we come to the following results by comparing aerial images (1956) and (2008) relating to Imamzadeh Yahya Passage:

1. Preservation of local position for major and minor passages
2. Creation of new routes including Tahmasebi alley and Sepehr alley etc.
3. Maintenance of focal points of passage despite of some changes such as change in use, lands partitioning, and new constructions
4. Change in housing pattern at residential zones due to construction of new buildings (conversion of residential block with courtyard into newly-constructed flats)
5. Change in spatial organization (solid and hollow) in residential zones particularly at the edge of locality
6. Demolition of green space against Imamzadeh Yahya and converting it into marginal parking lot
7. Widening of some routes due to new construction regulations in this locality to retreat newly-constructed buildings
8. Transposition of connection joints and nodes among two maps

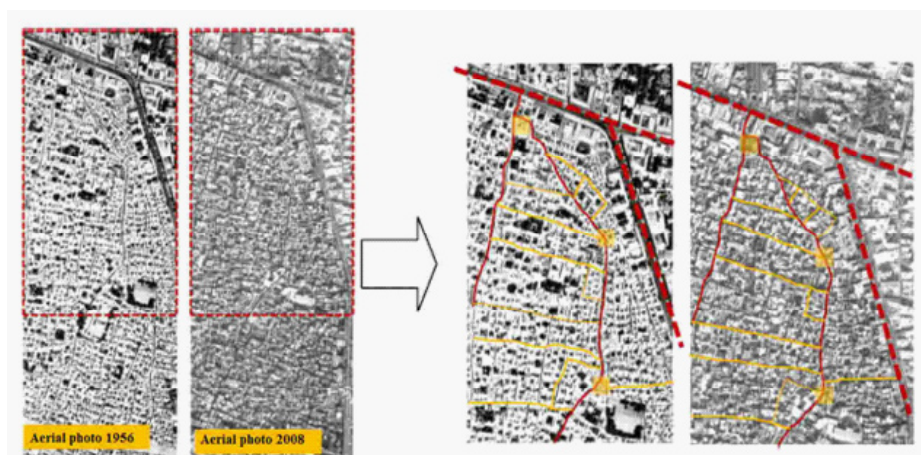


Fig. 4: Comparative analysis of aerial photo from situation of Imamzadeh Yahya (Source: Authors)

Based on conducted studies on features of buildings at both sides of Imamzadeh Yahya Passage, 83.6% of the existing buildings need to renovation and reclamation, 13.5% of them are newly-constructed, 2.3% were demolished, and 0.6% of them need to reconstruction. The demolished buildings are those constructions which are structurally considered as half-ruined and they lack visual and formative values. The level of this parameter varies of course.

52.8% of buildings with highest frequency are one-story, 38.7% are two-story, 7.4% with three-story, and 1.2% have four stories where these two unit are placed at the beginning and end of this passage and main zone of passage only includes one- or two-story buildings with harmonic perspectives that start from Abolghasem Shirazi alley and ended at the edge of Moradi alley.

Statistics indicate that more than 30% of buildings placed in Imamzadeh Yahya Locality are older than 30 years so this indicates the eroded housing texture in this locality per se. Overall, it can be implied whereas Imamzadeh Yahya Locality is situated within the initial limit at period of Naserddin Shah (Qajar) it has old history and for this reason most of buildings around this texture have age older than 50 years.

In general according to statistics in 1996, compared to Tehran city the lifetime of buildings in municipal region No 12 is too older and the construction materials used for them are generally less durable than in Tehran city.

Enhancement of visual- formative quality of public fields of cities has high position in urban design and repair and process of improving quality of environment. Thus, conscious design and protection from view axes toward values of visual parameter may play undeniable role in upgrading visual-formative quality of public fields<sup>19</sup>.

The concept of term 'view axis' or 'visual axis' is synonymous to meaning of words 'visual cone, view corridor, and front view' in literature and theoretical bases of urban design. This concept is composed of two terms of view or landscape and axis in terms of lexical root<sup>20</sup> where urban landscape forms from visual- formative as well as non-visual aspects of environment (sounds, smells, fabric etc.). Of available signs in historic Imamzadeh Yahya axis one can refer to the following items:

1. Old airholes because of height and form (e.g. airhole in Kazemi edifice and Memarbashi

school)

2. Imamzadeh Yahya dome due to different forms and colors with background and the presence of an old plane tree of Tehran in its courtyard
3. Truss roof of Navab Mall because of the only available roof through the path of in the existing archway in one of route passage
4. The old front door because of the only valuable front door remained at the wall of this passage



**Fig. 5: Situation of visual elements placement in Imamzadeh Yahya passage (Source: Authors)**

And of precious historical elements in this passage one can refer to the following items where their dispersion is visible in this figure as follows:

1. Threshold of Imamzadeh Yahya Shrine
2. Kazemi portico
3. Memarbashi school
4. Navab bath



**Fig. 6: Position of placement of important historic elements in Imamzadeh Yahya passage (Source: Authors)**

It has been dealt with Strength and Weaknesses and relation with historic Imamzadeh Yahya Path in the expression of Opportunities and Threats (SWOT) in given table:

**Table 1: SWOT table based on formative and visual features of Imamzadeh Yahya Locality**

Subject	Strength	Weakness	Opportunity	Threat
Formative and visual	<ul style="list-style-type: none"> <li>-The presence of arable lands for construction of public spaces needed for locality such as green space and library etc.</li> <li>- Value of texture from perspective of presence of architectural style types since Qajar</li> <li>- Shortage of green and</li> </ul>	<ul style="list-style-type: none"> <li>-Low percentage of using fine materials in the constructed buildings within time interval 30 to 5 year before in locality as well as low quality of standards of locality building compared to other localities of Tehran</li> <li>each other in locality open spaces in locality</li> </ul>	<ul style="list-style-type: none"> <li>- Potential for renovation and reconstruction of locality with respect to inclination of Cultural Heritage organization and experts</li> <li>- The presence of suitable number of ruined and demolished plots in adjacency to valuable buildings that can be used for</li> </ul>	<ul style="list-style-type: none"> <li>- Absence of codified and effective planning for addressing worn fabric and execution of governmental approvals regarding support from worn fabric</li> <li>- rising trend of erosion in locality texture</li> <li>- Lack of due attention to texture and some of</li> <li>- Ever-increasing</li> </ul>
	<ul style="list-style-type: none"> <li>- The presence of</li> <li>-Weariness and lack of Imamzadeh Yahya Shrine as strong religious- historic element in locality</li> <li>-Relatively suitable continuity of bodies to each other</li> <li>- Relatively continuity of locality skyline except in limited cases it has removed continuity of skyline by reconstruction</li> <li>- Mobility and visual continuity of locality texture</li> </ul>	<ul style="list-style-type: none"> <li>development of the appropriate consolidation of locality buildings against earthquake and non-repairing of them</li> <li>- Inappropriate partition of lands</li> <li>- Shortage of suitable open space for presence of rescue centers upon occurrence of accidentence in dense texture of locality</li> <li>- illegibility of locality texture and blocking and restriction of visual corridors</li> <li>- lack of suitable covered channels for collection of wastewater and dissemination of them in open ditches</li> <li>- Lack of economic solvency of local persons for reconstruction and renovation of buildings</li> <li>- Inappropriate construction density of newly-constructed buildings to width of routes</li> <li>-unsuitable topology of buildings at ground level and disharmony in direction of buildings placement to each other</li> <li>- non- uniformity of newly- constructed buildings in terms of number of stories and height with former buildings and consequently creating of problems including pending level, privacy, and shading</li> </ul>	<ul style="list-style-type: none"> <li>influence of market needed spaces including green and open space</li> <li>- The possibility for design and organizing of recreational space in locality as main recreational center and collective diaries</li> <li>- projection of idea and paradigm for supporting and protection from valuable historic buildings and fabric before experts and great care for this task at this time interval</li> <li>- Public tendency to reconstruction of worn fabric</li> <li>- Possible integration of worn and unsuitable plots and</li> <li>- Rewarding policy of municipality for granting more density and stories to local people in the case of reconstruction of buildings</li> </ul>	<ul style="list-style-type: none"> <li>activity in locality texture as ownership of buildings for warehouse use and thus contribution to rising weariness in these buildings</li> </ul>

### Conclusion

Imamzadeh Yahya is one of the precious passages with historic fabric and identity for some part of Tehran city and following to entry into modernism period and the developments caused by them this locality has been subject to several transformations and was exposed to many problems. Nevertheless, recognition of the existing potentials and opportunities makes it possible to take some measures to preserve its identity along with fulfilment of today requirements of local people in this area. Therefore, presentation of plan for organizing may be prioritized toward improvement of formative appearance, traffic, environmental conditions, and reducing density and concentration as well as enhancement and creation of visual values to give identity to this area. Alternately, whereas the middle core and texture is mainly of residential type in this passage while the edge points of this locality are mainly combined and jointly commercial so that it necessitates specifically for paying attention to social system at this locality and fulfilment of needs in design plan at local scale.

The intervening approaches to achieve the given outlook were designated as follows: creation of touristic role for this locality, reclamation of local

center along with Imamzadeh Yahya Shrine and establishment of spatial continuity between distinct elements adjacent to Imamzadeh Yahya Path by preservation of cultural and formative and visual values so that prepare the ground for pivotal formation with reminiscent signs and spaces and memorial sites for people and finally to prepare for prosperity and development of historic Imamzadeh Yahya passage through creating the needed services and attractive for population, refinement of activities and making them cost-effective by reconstruction and renovation of environment, establishment of social securitization and safety with removal of defenceless spaces, social supervision, and prioritization of pedestrian movement and restriction of automotive movement.

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### References

1. Assari, A., S. Maghreby, and M.M. Nik, *Investigation of smart growth in traditional Islamic culture: Case study of Isfahan city in Iran. Journal of Geography and Regional Planning*, vol. 10(4) pp.47-56 (2017).
2. Mohammadi Kalan, A. and E. Oliveira, *The Sustainable Architecture of Bazaars and its Relation with Social, Cultural and Economic Components (Case Study: The Historic Bazaar of Tabriz). International Journal of Architecture and Urban Development*, vol. 5(4) pp.5-12 (2015).
3. Jackson, S.E., A. Joshi, and N.L. Erhardt, *Recent research on team and organizational diversity: SWOT analysis and implications. Journal of management*, vol. 29(6) pp.801-830 (2003).
4. Zainul Abidin, N., *Sustainable Construction in Malaysia—Developers' Awareness*. (2009).
5. Tavassoli, M., *Typical Historical Cities*, in *Urban Structure in Hot Arid Environments.*, Springer. pp.59-97 (2016).
6. Yuen, B. and W.N. Hien, Resident perceptions and expectations of rooftop gardens in Singapore. *Landscape and Urban Planning*, vol. 73(4) pp.263-276 (2005).
7. Piran, P., *Rapid urbanization. Slum living in Tehran. Political–economical-information journal*, vol. 1(18). (1988).
8. Lynch, K., *The image of the city*. Vol. 11: MIT press. (1960).
9. Bonaiuto, M., F. Fornara, and M. Bonnes, *Indexes of perceived residential environment quality and neighbourhood attachment in urban environments: a confirmation study on the city of Rome. Landscape and urban planning*, vol. 65(1) pp.41-52 (2003).
10. Bahraini, S.H. Development and sustainable development: A theoretical analysis. in *Sustainable development and environment*



- conference, Expert Association of Iran Environment, Tehran University. (1996).
11. Razzaghi-asl, S. and N. Zarei, Urban design, medicine and the need for systematic and evidence-based procedures for urban designers. *Urban Design International*, vol. **19**(2) pp.105-112 (2014).
  12. Falamaki, M.M., An overview of the experiences of urban repairing, from Venice to Shiraz. Tehran: Faza publication, (2004).
  13. Moghimi, L. and A. Assari, Redefinition of Pedestrian Route-Finding Networks as a Tool to Return Vitality and Responsiveness to Yazd Khan Plaza. *Current World Environment*, vol. **11**(2) pp.378 (2016).
  14. Pourahmad, A., K. Zayyari, and J. Zahedi, The evaluation of urban quality of life by mental approach in Afghan immigrants (Case study: Robot Karim City). Published in Persian by University of Tehran, (2014).
  15. Madanipour, A., G. Cars, and J. Allen, Social exclusion in European cities: processes, experiences, and responses. Vol. **23**. Psychology Press. (2000).
  16. Smith, T., M. Nelischer, and N. Perkins, *Quality of an urban community: a framework for understanding the relationship between quality and physical form*. Landscape and Urban Planning, vol. **39**(2-3) pp.229-241 (1997).
  17. Madanipour, A., *Whose public space?: International case studies in urban design and development*. Routledge. (2013)
  18. Assari, A., T. Mahesh, and E. Assari, *Conservation of historic urban core in traditional Islamic culture: case study of Isfahan city*. *Indian Journal of Science and Technology*, vol. **5**(1) pp.1970-1976 (2012).
  19. Assari, A., et al., Comparative sustainability of bazaar in Iranian traditional cities: Case studies in Isfahan and Tabriz. *International Journal on Technical and Physical Problems of Engineering (IJTPE)*, (9) pp.18-24 (2011)
  20. Pourjafar, M., et al., Role of bazaars as a unifying factor in traditional cities of Iran: The Isfahan bazaar. *Frontiers of Architectural research*, vol. **3**(1) pp.10-19 (2014).