Analysing the Effects of Environmental Recognition on Enhancing the Hidden Natural Landscape of *Tajrish* River-Valley and its Sociability

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Abstract

The texture of the cities are impacted by forces like natural,economic ,forces of power, social forces and civic institutions. Reflection of *Shemiranat*growth in comparison to the population and economic growth of Tehran and increasing demand for the fine land and weather become directed to *Shemiranat*area, especially to its central area, *Tajrish*; Above factorsand pilgrimage were shaped under the influence of *Shemiranat*natural factors. But nowadays extent of the traces of mentioned factors on the natural history of *Tajrish*has led to the extinction of environment and emergence of lost spaces. This paper aims to reach for a number of factors to evaluate the sociability of *Tajrish*river-valley and the will to collective activities by the course of emergence and role of environmenal perception and to ultimately check the feasibility of revival for the natural substrate of *Tajrish*river-valley. The subjective picture of users from the environment of river-valley and the possibility of environmental perception in the skeletal space is an independent factor which is impactful on the sociability of the substrate of river-valley as a dependent factor. To have an evaluation over the subject, the skeletal locality of the river-valleys substrate is considered as a part of collective-behavioral locality of *Tajrish*square. the research has been scrutinized on its main framework and the impacting factors on the formation of the natural subjective landscape are analyzed in the skeletal substrate. results show that the existing river-valley in *Tajrish*square can turn into a sociable substrate by taking influences from "comparative-interactive perception" of nature in the subjective image of the users of the space as a part of the green infrastructure.Also subjective landscape of *Tajrish*is more impactful on the re-design process rather than the objective landscape due to the transfer of subjective image of the space.

Keywords: Subjective Landscape, Comparative-Interactive Perception, Sociability, Hidden Landscape, *Tajrish* River-Valley.

1. Introduction

Urban spaces have been analyzed in several fields, including the architecture, urbanization, urban design and each has been criticized according to their specific fields of research. On areas the urban spaces, Parsi believes that these type of weighing should be recognized by analyzing their contents, he recounts urban spaces as a collection of variable and relatively stable elements (Parsi, 2002). In his point of view, the variable elements meant to be social activities and behaviors which bring a spirit and character to space and the more stable elements are the civic and urban characteristics of it. It is good to mention that the variable elements shape a considerable part of the subjective image of the space in the urban space, on the other hands according to Edward Rolf the subjective image is the most impactful element in the sense and identity of the locality (Carmono, 2006: 99), in his viewpoint when he talks about variable elements he means to say activities and social behaviours that breathe soul and a character to the space, the more civic stable elements are the civic and urban character of it. It is pertinent to mention that an important portion of visual image of the space is shaped by variable elements in the urban area, on the other hand, as Edward Rolf believed, the subjective image of the space is the most impactful element in development of the sense and identity of space (Carmono, 2006: 99).

The texture of the cities is always impacted by various forces and factors including natural forces like bodies of water, land topography, the flow of the wind, construction technology or economic forces alongside with the forces of power, social forces and civic institutions. According to this concept, urban spaces were always a reflection of the living and social, economic conditions of their inhabitants. According to the documentations, books, and memories, *Shemiran* area used to be considered by the tourists due to healthy weather and fine sceneries, as these factors made it as a symbol throughout the history. Reflection of *Shemiranat* growth in comparison to the population and economic growth of Tehran and increasing demand for the fine land and weather become directed to *Shemiranat* area, especially to its central area, *Tajrish*; numerous factors including the economy, social prosperity, and pilgrimage

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was shaped under the influence of *Shemiranat* natural factors. But what we witness nowadays shows that the extent of the traces of mentioned factors on the natural history of *Tajrish* has led to the extinction of environment on one hand and emergence of lost spaces on the other hand. This paper aims to reach for a number of factors to evaluate a number of factors to evaluate the sociability of *Tajrish* river-valley and the will to collective activities by the course of emergence and role of environmental perception and to ultimately check the possibility of revival for the natural substrate of *Tajrish* river-valley and its impact on elevation of urban life on the research context. The subjective picture of users from the environment of river-valley and the possibility of environmental perception in the skeletal space is an independent factor which is impactful on the sociability of the substrate of river-valley as a dependent factor. To have an evaluation over the subject, the skeletal locality of the river-valleys substrate is considered as a part of collective-behavioral locality of *Tajrish* square. Aligned with this fact and based on the literature of subjective landscape and behavioral sciences, the research has been scrutinized on its main framework and the impacting factors on the formation of the natural subjective landscape are analyzed in the skeletal substrate. The outcoming results show that the existing river-valley in *Tajrish* square can turn into a sociable substrate by taking influences from "comparative-interactive perception" of nature in the subjective image of the users of the space as a part of the green infrastructure (GI).Also, in order to check the feasibility of enhancing the natural substrate of river-valley and re-designing the hidden landscape of existing lost space within it according to the mentioned factors, we reached a conclusion that the subjective landscape of *Tajrish* is more impactful on the re-design process rather than the objective landscape due to the transfer of subjective image of the space.

Also from the viewpoint of Lynch, if the environment has a clear, bright, lively and cohesive subjective image, it would have a social role (Lynch, 1971:15). Since the subject of recognition in landscape architecture has a focus on the observer due to its observer-oriented nature and the fact that human being is the most important

signifying factor to the environment, recognizing the green content of *Tajrish* urban substrate, especially the variable elements gain a more significance in this text. Each phenomenon has two aspects: the perceptual and structural aspect. The structural aspect is simple, evident, free of socio-cultural dependencies and detectable, while the perceptual aspect is not only complicated and hidden but interleaved into the cultural traditions of each nation

and it is impacted by numerous social and personal factors. In this case, architecture gains significance by stepping inside the second dimension which is the recognition (Dibaj and Soltanzadeh, 1998: 11).

The subjective meaning of connection with the nature in its more general terms of it (In connection with the whole world, especially for the case of live animals) is one of the major pleasures of the human being and the most basic aspect of significance. In fact, considering the nature was not meant to be about preserving the animals and plants but the goal was to focus on their existence. We can observe the movement of the +

sun, tidal waves, green plants, the insects and human beings on the sidewalks in the city with joy (Lynch, 2005: 338). This affects a number of aspects of the environment, which is impactful to all the actions of the citizens in artificial [manmade] spaces. One one hand the eventuality for negotiating proper collective interactions on different levels in the artificial environment and on the other hand the possibility of a recognition for nature and natural elements point out to the dual psychological, skeletal aspects of the artificial space qualities which documentation in this research. Affection for nature and the interest in approaching alive natural element closely are the dual feelings that include a large portion of the users in the constructed spaces, this matter is impactful to the quality of life in the activity areas (Daneshgar Moghaddam, 2011).

The aim of this article is to find the opportunity in revitalizing the natural elements of *Tajrish* river-valley by focusing on the role of having a recognition of nature on the subjective image of the users and its impact on the social behaviors and elevating the environmental quality and urban life. This research tries to focus on the concept of environmental quality in the natural urban substrate from the viewpoint of citizens[/residents] and to identify the impactful elements and utensil aiming for the elevation of environment quality from their approach since the space quality is a multidimensional concept and there is an importance in different approaching angles on this concept. The propounded elements on evaluating the environmental quality areas the objective and subjective, as we can consider two approaches for each of the elements. The first one is based on the expert observation and evaluating with the result-oriented elements (Van Poll, 1977, 11). On weighting the objective elements, expert observation and for weighting the subjective, skeletal-spatial, social elements we used the result-oriented approaches while questionnaires were employed for collecting the subjective data. The paper is consist of two sections: the first part has a focus on the field of

theoretical concepts and the second section is dedicated to the analysis of data and the findings of the research.

2. Research questions and presumptions

What brings several questions in our minds is the analysis of behavioral map of users in the space and to have a comparison with their points of view in the interview and questionnaire. According to the inputs from the users of *Tajrish* area, they all believe in its liveliness and rich nature, while we can observe this liveliness and struggle, but there have been left fewer signs of nature. The more important point is that purposes for presence in the research area were offered as pilgrimage and shopping, but it has stayed as a symbol of nature in their mind. So, these questions are proposed: Where is the standing of the natural elements in the subjective landscape in order to elevate the sense of liveliness in the lost urban spaces? To which extend the impact of subjective landscape elements would be significant in the MaghsoodBeig river-valley? Which element causes nearly everyone (mentality) in the public to think of *Tajrish* as a river-valley with an enchanting vista while a great harm is being made to the major natural sources (skeletal) and their signs symbols (river-valley)?

The following research presumptions are proposed accordingly in order to answer the research questions:

The subjective image of *Tajrish* has a bolder role in converting the dead space of the river-valleys substrate into the lively urban spaces and to elevate the quality of the urban life in comparison with the objective image.

The desire to take part in collective activities by the users in the skeletal spaces, in other words, the sociability of the space is affected by the quality of natural perception and the natural elements.

The basis of the study about the elevation of urban life quality for the authors of this article was the answering of the proposed questions through the field observations, interviews and the behavioural study of the users in the space around *Tajrish* square and the borders of existing river-valley, also the circumstance of relationship between urban life quality with two fundamental factors namely the type of recognition of nature in urban spaces and its sociability and finally to define the impacting elements that are resulted from this relationship on the urban life quality have become the basis of the following case study.

3. Research method

A number of criteria were specified in this research by using the library documents and the researchs from the past together with the field observations of the author and a number of questionnaires were created and distributed

accordingly. The authors had also created a map through interviews, observing the behavior of the users by filming them during different hours which led to considerable results. The resulting data would lead to conclusions and offering of solutions after categorization and grading in a deductive approach.

4. Theoretical basis of the research
4.1. From recognition to the behavior in the environment.

Leopold believes that our ability to perceive the quality of nature starts with the beautiful parts and it then traces the sequences from the beauty to the ones that they never declare them until now (Bell, 2003: 108). Many of the architects' encounter with nature is limited to this field as nature was considered in the dimension of the provider of beauty. But the view over nature from the viewpoint of environmental perception refers to a more comprehensive approach which includes the direct perception and recognition and implicit meanings and psychological, well-being values caused by the interaction with the nature and natural elements, it has a perceptive feedback in the system of users' behaviour and activities in the environment (Daneshgar Moghadam, 2010).

Research in the literature of the subject, revolving the case of circumstances in the perception of the environment points to three different approaches which have the equal position with different explanations in the space, The first approach recounts the perception of nature based on the sensory perception. While sensory perception signifies the visual aesthetics and subjective perception signifies the symbolic aesthetic, the symbolic and implicit meanings take their meanings in the relationship with the spatial location. The second approach recounts the recognition of nature in the environment as a concept including these three aspects: direct, indirect and symbolic recognition (Kellert, 2008), in which the direct recognition refers to the direct presence of the natural elements in the space as the indirect recognition would mean to focus on the historical and cultural aspects of it in addition to implications in the types and finally the symbolic perception signifies the human interactions and natural elements in the environment. In addition, the Appleyard approach which is based on the environmental recognition of the environment including the perceptual recognition and emotional recognition which is considerable in the recognition of nature in the artificial, man-made environment (Appleyard, quoting from Golkar, 2001).

Environmental perception peers with the human recognition from the surrounding environment; a recognition of the surrounding environment looks mandatory as the perception of nature is counted as one of the most important capabilities of skeletal environment which becomes impactful on organizing and diversity of the activities in the skeletal environment and the environment that is recognized by the human is the outcome of perception. There are two general methods to recognize the environment: 1. Tracing subjective images of the city: Several numbers of researchs have been done in order to perceive our recognition system toward the environment and to recollect them. The main method to reach this goal is to picture a mind map of it. It means to stabilize the subjective image of the people which is shaped and used as their behavior in the city (Madanipour, 2000: 98). Thereupon, identifying the subjective image of the space is regarded as an important step on a recognition of space (2000: 98). 2. Daily life approach: This approach put light on the reality.

The landscape is an urban space that includes all of the data from that Spaces which are perceived by senses and are processed in the cognition process. Since landscape does not only include green fields (Lindholm, 2011), the idea of landscape, merges a piece of land with their appearance in a vista and this causes an interaction between the environmental recognition and actions lead to the landscape architecture (Antrope and Van Eetvelde, 2000). So, the landscape as the sender, include various data which we can categorize them into the skeletal and perceptive factors in which the perceptive factors include the presence of people and the way of their activities and functions in the urban areas (Modiri and Bajgiran, 2013). The type of behavior in the urban areas is connected with its fundamental role of the human being in the formation and perception of it. An individual would perceive the geometry and tangible specifications of the city through the five visual, auditory, olfactory, etc by the five senses, with the sustain of the individual's presence in the space according to the environmental data and subjective images, previous visual experiences and impressions, recognizes the environment with the specific meaning that it creates the environment to perceive it. So, it evaluates the subjective landscape with this image, Jack Nester recounts the result of interaction between the urban environment and the evaluative mind of the individual as the "evaluative subjective urban landscape", and the individual would behave according to the contents of his/ her very same evaluative subjective landscapes (Golkar, 2006: 39).

4.1. 1. Lost Urban Spaces

It is referred to the unspecified spaces and those which are disconnected with their adjoining lost urban spaces (Ashnaei et al, 2013). Roger Trancik, in his book "Finding the lost spaces" believes that in order to organize these types of abandoned urban spaces, it is essential to note these five different qualities: 1. The sequence of movements (development of connection), 2. The enclosure of the spaces, 3. The cohesion of the borders, 4. Control over axis and the perspectives, 5. Mixing the interior and exterior spaces (Trancik, 1986). The hidden urban vistas are considered as a part of lost urban spaces.

4.1.2. Shared collective memory Shared mind image

The subjective image of the individual from the environment is the result of two main factor: 1. Impressions [memories], connections, experiences, and expectations which have facilitated the connection between the person and the landscape as a cognitive set, which have contextualized the relationship between the individual and the landscape in the form of a cognition set. 2. The three-dimensional data that documentation from the landscape that shapes a subjective image as a schema. In this process, human organizes the received images from the environment in the mind and making subjective images by making meanings among the order between them rather than only the forming elements of nature. The human mind is able to imagine the existence in a space and to also alter that image, visual thinking is simultaneously at work with a type of argumentation which bring meaning to some elements of the landscape or it seeks to find the beauties of the landscape. We can change the landscape with reasoning and argumentation as "it is" can be changed into "as it should be" (Bell, 2003: 83). It is good to note that the created subjective image by the citizen is taken from the environment and thus it is not fully and accurately coincident with the reality, it is interesting that people act based on this subjective image rather than the existing realities (Golkar, 2006). Therefore, the (subjective) visual image of the city is what human has experienced consciously or unconsciously through the existing physical reality according to one's special aspects of characteristics framework. But this subjective image is not connected to the individual citizens only in the present tense but they are mixed with subjective imagination from his or her past memories and creates some expectations (Pakzad,). Therefore, the subjective landscape and landscape of the people of the city is created by their interactions with the city and the locality so it can be regarded that having a rich subjective of the place,

would be creator and supporter of urban identity (Khatibi,). Ralf considers visual image as the most impactful factor in the creation of the sense of space and identity, factors including the list: nostalgic, symbolism, readability and visibility, sensory experiences and perception together with psychological connection with the space, in fact he brings a special value to these factors and put them forward in the two individual and collective aspects while he believes that the human beings are the most important signifiers of the place. He refers to the connection between human being and the spirit of the space, and considers it with a precondition of having a deep perception of the space for the occurrence of the event and formation of memories throughout the time, he also considers the meaning or cognition, activity and form as factors that the subjective image is shaped by and personal or collective memories and people can perceive soul of a space by the implications that these subjective images make in their minds. Aldo Van believes that location and situation possess the more amount of significance than space and time. This point shows that our perceptions and impressions of the space in the mind, has a location which plays a signifying role and causes familiarities and identity with the place, and the space would in result turn into a place that can communicate with the human mind in a remembrable form, it should in fact become part of the mind even if there are no references to it.

According to the ideas of Gestalt, the human mind is consist of general perceptions which are related together through association with each other and it can interpret the events with this method (Habibi, quoting from Naghizadeh, 2008). Thereupon, the place would be perceived that the primary subjective images and our images associate us. According to the proposed subjects, the author refers the spatial perception as the "comparative-interactive perception" of the space and believes that the spatial perception in lost spaces and association with them happens by a presence in the similar space and adopting one's memories with it. Alike human beings, the city is described with memories, Benjamin believes that the memory is not a tool for researching the past but it is a scene for a reconnection with the environment. Memory probes until the very deep layers and to make a new place in the urban memory, it puts together bit and pieces in order to give function to them, save the lost functions and free the suppressed hopes and wishes again. Therefore, collective memory is a way to develop social identities which help human beings to keep their identity and enhance the physical quality of the places by showcasing the history and the past, so it is orally and written transferable in the space. Two criteria are propounded in the formation of the subjective image and the collective memories are proposed as factors; the two fundamental criteria are 1. The probability for the formation of constructive social events and interactions, 2. The possibility of restoring and transferring the memory and in result to restore, transfer the city history.

Several spaces and localities are changed and scrutinized from (Tehran with starting letter T, "ط" in Farsi into the "ت"), but still two type of memories are detectable: A. Those which are impossible to have a spatial revival for them and are somehow expired like Google, but we can preserve their historical identity by naming them as the street names; B. Impressions that are the characteristics of a space, including recreations, pilgrimage, and the nature, but the natural contexts of them are devoured in the city. To convert the subjective impressions in the second type to a tangible, objective phenomenon we should discuss the skeletal identity and the public acceptability in the social context of the city.

Table 1

The aural landscape of the city in the written impressions: Author(s).

Written Memories	Landscape Specification	Extractable Criteria
Wilbert Boschert	Timelessness, mountain countrysides, green roofs of old trees, bright weather, sight over far lands, natural impositions of the land, sound of the birds.	Security, peace, hygiene, diversity in the view
Maurice Parnou	High gardens/ Pleasant greenfields with blossoming flowers, soundful waterfalls, narrow streams of water.	Vegetative field, access, nostalgia
Christophe Lado	Old elm trees with trunks stuck in cement and they are bowing down under the weight of their history in the past, it seems that they are witnessing rivers that bring their memories into eternity afar the wall/ old garden valleys/ gardens full of fruit blossoms and plane trees or poplars.	Nostalgia

The performed researches show that the researchers are not only been seen as a visual sensory factor, but it is heard, smelled and touched, too. So, a big part of the visual image of the citizens has roots in the aural

landscape of the city which are included in this following table although there was not enough space to scrutinize them in this paper but the sound is one of the most important non-skeletal factors while categorizing the human activities into skeletal and non-skeletal factors. In fact, a portion of an urban space quality is resulted from the pleasant urban soundscape according to the context, including liveliness, sense of being and sense of space, security, etc. While the duty of urban planners and landscape architects is to elevate the environmental qualities of an urban space, designing the sonar landscape is one of the tools of this group for reaching the mentioned goal (Shobeiri Nejad, 2010).

4.1.3 Semiotics approach in the context of reinforcing the subjective landscape

If we analyse the urban landscape in a semiotics system, the city, meanings, intangible meanings, relations, and even hidden dimensions of it are considered as the signified and the urban landscape is considered as the signifier, thus the component of urban landscape are signs that each refer to specific meanings and contents (Sa'adat far and Dabiri, 2013). Subjective image of the city is, in fact, an attached general totality of signs and symbols which brings reality to concepts, values, meanings and related entities. As the goals of the subjective image of the landscape, we can point out to raising the readability and peacefulness of urban spaces. To reach for such goal it is mandatory to make plans between different contexts and environments, this is done by relying on the urban elements, including the urban signs. Urban symbols are not only limited to the elements of skeletal factors, but they include urban spaces with special functions including the most important signs of the space (Lynch, 2008). The turning points include the natural signs (mountains, trees, rivers, waterfalls, etc.), and the artificial signs are considered as the most significant signs with a focus on the subjective aspects due to their nostalgic values. The important point in this regard is that when there is an external equivalent of these turning points with the subjective aspects, their existence and transfer to the next generation will be more guaranteed. The turning points which has the most attraction between the environmental elements have the most impactful quantity on the subjective image of the citizens of the city which gain a more positive aspect when they follow the aesthetic maxims and addressing the human emotions (Ale Hashemi and Mojtahedi, 2013).

4.1.4 Impacts of natural factors on subjective landscape

Natural identity factors show the natural identity of a space and while nature used to be a part of human life, and

the man can reach for a peace along with it, cities and their elements should provide such an environment and field as a place for the welfare and peace of the human beings. Along with the skeletal aspect, this peaceful feeling has generally exist with the emotional and psychological aspects, in a way that natural elements especially the bold one's alike mountains, rivers become familiar signs for the citizens and pieces of their existence and their memory throughout the time (Khatibi, 2011), thereupon, the natural substrate can play a great role in the formation of memories and finally a bright image of the environment due to their semiotic elements. In the research area, nature as a fundamental sign and specification in the subjective image of the user in spite of its damaged elements including the *Tajrish* river-valley has a bold role which we will pay attention to them in the rest of the research.

4.1.5 Quality of the environment, recognition of nature and sociability

Quality of the environment includes the socio-cultural and skeletal conditions of the urban area which reflects the amount of citizens' satisfaction or dissatisfaction from the urban area, in fact an environment with a high level of quality transfers the sense of welfare and satisfaction to the community that resides in it through the features that can be either physical, social or symbolic (Bahraminejad, 2003: 44). Quality of the city is the result of factors that each can help to provide solutions in order to elevate the urban quality by recognizing their functions and positive impact on the space (Alipour, 2012). We should seek the final measures in order to reach for a high environmental quality in these three elements: 1. Structure, constructions, roads, highways, and infrastructures that lay on the ground or beneath it, 2. Open spaces for the pedestrian, separated from automobiles, 3. Nature, including the shape of the land, stones, plants and the water (Ghanavati, 2010). Four fundamental elements have the most importance on the quality of urban spaces: Access, cohesion, convenience and the landscape, use and activity and sociability, in which the sociability is one of the most important factors on checking the favorability of the urban spaces; it has a focus on the point that a favourable place would certainly be desirable for social functions and uses (Rastbin et al, 2011).

There are different opinions regarding the development of public sociable spaces which we can to the ideas of Jane Jacobs, Ian Gehl, Allan Jacobs, Cooper Marcus, Donald Appleyard (pps, 2010). The mentioned viewpoints have considered factors like mixed land use, liveliness, visual beauty and preservation of the space specifically and other factor like proper access and security proportions and readability and public nature of the space as the most

influential factors on the sociability and social interactions (Behzadfar et al, 2013). Hall is one of the theorists that have studied sociability in the space to analyze the social interactions and have categorized the behavior of the space users into the two sets of sociable and unsociable. The sociable environments persuade collective activities and unsociable spaces causes a reduction in these types of interactions (Hall, 1982). Quality of the environment is in a direct relationship with the sociability of the environment; to prove this claim, observing the type of activity in urban spaces can be impactful on providing a definition for the concept of sociability. Three types of behavioral activity were observed in these environments, the first one are the urgent activities which are done on any condition without regarding the environmental quality and the second one are voluntary (leisure) activities which are occur during the existence of climate conditions, attractions and inviting character. These types of activities are sensitive to the environmental conditions and would take place when the environmental quality is desirable and the third social activity is developed when people traverse in identical pathways, like the case of sightseeing, dialogue and experiences from being with others and includes active or passive participation (Gehl, 2004:5). Therefore, sociable environments are the type of environments that can provide the sense of peace, exploration and attraction together with a secret character in their contexts for social groups. Green infrastructures are the reassurances of the health, sociability, and sustainability of the urban spaces, researchers reflect the fact that trees and plants and different elements of the nature reduces the amount of stress and improves the physical and mental health of the people on one hand and decrease in the crime rates which is one of the important factors of the security. Security is one of the qualitative character of life in the cities, to attract people to the social space a number of factors like the pedestrian access, social supervision and social interactions should be present. The concept of secure urban space is proposed as the opposite to the insecure social spaces. The phenomenon of insecurity has two subjective and objective aspects, it includes all of the living areas, in the objective aspect it includes all forms of insecurity including robbery, homicide, and violence, etc., in its subjective image it includes judgments regarding the regional and spatial security (Salehi, 2008: 107). Crime prevention through environmental design (CPTED) is not the main impacting factor on the feeling of security, but stabilisation of the environment and increasing the residents' sense of belonging to the environment are some other factors which influences the subjective aspects of the security more than others. The rapid growth of the cities, have

intensified the formation of unhealthy, abandoned and unsociable spaces, the problem is that the human settlements need healthy, safe and accessible spaces that can pre perceptible for them; i this case, green infrastructures should not only be considered as a valuable system but as an ecological system of services (Martin, Ely, 2012). Sociability of a space is influenced by several factors which include the possibility of interacting with the environment and the natural elements as a significant factor in this quality. When the artificial space provides the a possibility of precepting nature and the natural elements in the space, the perception of nature would have a considerable impact on the sociability of the space which causes the spatial density and the formation of activity center in specific spots of the activity areas (Daneshgah Moghadam, 2011). As a quality, sociability of a space has an influences on the attachment to the place. Attachment to the place is not only reinforced by the physical figures in a place, but the quality of social interactions in the place is also influenced by the sense of attachment to the space (poll, 2002). Urban attachment and liveliness is considered as two of the important factors that are influenced by the skeletal and subjective notions would get a meaning i the urban space and the social role of the landscape means to increase the living quality, reduction in the tension with attention on the health and wellbeing of the human and the habitat.

Lability of urban identity and sociability of the skeletal field from the natural environment is an obvious matter which deserves a close research since elevating the quality of artificial living spaces are done by applying natural variables and patterns. Urban parts have social, economic and ecological roles, with advantages like healing mental, environmental illnesses, suitable for raising children, social alliance, protecting the welfare, et al, which are all considered as a factor for elevating the urban space quality and social development (Balram, 2005: 149).

5. Case Study

According to the existing evidence and the results from the theoretical discussion, a number of four-axis were defined in order to study the context of the case study:

Identifying places which are proportional for the collective activities

Evaluating the specifications of the spaces with collective activities and to recognize their relationship with nature and natural elements

Identifying the unsociable places: Without collective activities and the places with the susceptibility to the occurrence of crimes and social dissonances.

Evaluating the quality of the perception of nature according to the frameworks of the study: presence of the

embellish elements in the space, natural landscapes, direct perception of natural events, indirect perception of the lost or damaged natural elements (river, natural substrate of the land surface around the river) and locating the view angles of the site by graphing the viewpoints of the users.

6. Data analysis

The target population of the following research is the users of the urban substrates of river-valleys *Tajrish* square and their scope of influence. The experimental sample population of the space users is 200 people, in which the questionnaires are distributed. A rate of 22% from them are residents and the rest of 94% were non-residents, age categories are considered older than 20 and younger than 50 years of old. On the field recordings in order to reach for the reason behind the unusability of the borders of the *Tajrish* river-valley in the lively urban space and a turning point in the north Tehran, interactions of the users in the space, activity systems and the activity spaces were studied align with the research goals. Along with this aim, surveying the mentioned river-valley bed is done through three different ways (fixing video cameras on the spots that were specified by the researcher and to film the behavioural patterns to transform them into the behavioural map of the users, photography) and interview with composing goal-oriented questionnaires in order to become assure of the observations, with the goal of scrutinizing and approving the theories of the performed research. Results of the data analysis from these questionnaires pays attention to the exact place of the collective spaces in the mind of the people, their preferences and expectation from the collective space and to have the primary estimate of the desirable urban space qualities. For the spatial recognition in the urban context of *Tajrish* square and its direct adjacency we can come along an special type of indirect recognition, in this type of recognition the users act by modeling from the substrates of Darakeh and *Darband* and similar historical-appreciation spaces and to adapt them with the acquired memories from the environment (through the experiences from presence in the space, quoting from the elders or in a written form), that can be referred to as "adaptive recognition" or "adaptive subjective image". Authors of the research, have done sketches to present the subjective image of the users, in other words, they help users to present their visual presentation of the space which is so similar regardless of the relativity of the space they are much closer to each other, they share some considerable points:

The subjective image is transferrable from a space, the nostalgia of the lost spaces like *Tajrish* river-valley indicates this case in the mind of 56% of land users

according to the 40 years old age average, 2. The overlapping of the subjective images of the space includes skeletal and behavioral factors, the substrate of these behaviors lays in the list of lost spaces, 3. Main characters of the subjective landscape of the space users play roles in the form of semiotics. Data analysis from the questionnaire demonstrates a transfer of subjective images from the space, what helped this transfer is the adaptation of collective memories with similar spaces which possess the possibility of memory formation in the environmental field and their associative role in the formation of collective memory, the important point to consider is that the mentioned subjective image is not shaped in the case study area, but they visualize by being their proximity in the surrounding environment like Darkeh and *Darband* by adapting one's impressions from the case study area and it functions by their presence in the urban *Tajrish* substrate, so the individual citizens behave based on this subjective image and not through the existing realities. The research framework in this paper reflects the fact that the sociability of the research area is related to its local identity from different nonskeletal aspects - including historical, social aspect and the culture - best said the variable elements of the space and location of the people in the damaged urban substrate like the margins of the river-valley is influenced by their perception and subjective image of them from the mentioned factors. Social groups are categorizable as the most important factor for the liveliness of the urban space as the users of *Tajrish* square and the margins of river-valley in two general distinct sets of residents and nonresidents including tourists, pilgrims, shoppers, busking musicians, and sellers, etc. Reviving and reinforcing dynamic and active urban spaces is one of the fundamental strategic goals in elevating the quality of the environment. In the administrated researches on this context, an attention was paid to the authenticity of the form in recognition, analysis, and designing of urban spaces and attention to the social context and accurate identification of impactful social factors in the content of the space was not the main focus. Two sets of factors were specified in the categorization of forming factors in the urban context:

1. The collection of the variable factors and the more stable factors. The variable elements related to the human activities which has a current in the shape of formal activities and defined locations based on the regulations and has a definite situation, or they are occurring in an organic way in the form of informal activities. These types of activities (street vendors and buskers) has the most characteristic aspect of the space which was taking place in defined locations in the past and now with the loss of their skeletal substrate causes a psychological insecurity

and dissatisfaction with the rate of 48% and the loss of perceptual quality in the subjective image with the rate of 52% for the users as these activities have lost their locations, 2. The more stable elements are the same social potential which has historical dimensions and are related to the permanent and collective values of the people are shaped in the course of history and are transferred through the symbolic cultural elements. Therefore, social and cultural forces defy the sustainable urban elements which have became their innate character and would slowly change with the passage of time. Dr. Parsi believes that these forces include traditions, knowledges and public beliefs, ethics and values which are in the form of religious ceremonies which are sometimes in the form of ethnic appearances and traditions and they usually bring a perceptive quality with their cultural and psychological values. These forces has a usual hidden existence, they are not seen but they are sensible when we face a social or cultural topic, it is a type of entity which is present not in the each of the space elements but in its general sense and they are perceptible through the spatial relationships, this can be called the permanent significance of the space; a type of meaning which is deposited by the events, traditions, ceremonies and other old and comparably static of the society's culture and they are perpetuated through the symbols as the factors in the transfer of collective knowledge in the local culture, this stack of socio-cultural forces in the urban spaces are usually clad with a symbolic cover and it is called the symbolic space, experiencing the symbolic spaces is the best stage in experiencing social spaces. The author believes that the social groups which are the users of mentioned space are a part of the nature because the social groups are too having a historical aspect and localized spatial character like the *Tajrish* area itself. Activities like shopping, pilgrimage that is the reason for the presence of more than 60% of the people have roots in the natural substrate of the area which have turned into a behavioral pattern in the course of time. The social groups who use the case study area, whether resident or nonresident are able to describe the forming elements of *Tajrish* landscape, on the contrary to the viewpoint of the author before the field research; the river is one of their most important aspects of subjective image. The considerable point is that they are not able to provide an overall image or picture after describing the elements of the river-valley as they refer to their subjective image as ambiguous and vague which is due to a disorder in the perception of relationship between the mentioned

elements. The author have observed the behavior of the space users, their behaviour in the area of *Maghsoodbeig* from the north side of *Tajrish* square to *Arezoo* part is categorized into three different sets of moving, moving with interrupts and static, and two different types of access was evident:

1.Physical access to the space. 2. Sensory access to the space. The area 1 has less traffic in the term of density through the course of river-valley according to the illustrated map no. 4 and it has rare contact with the water (image 2) which is perceivable with a different spatial sense, the area no 2 has the more traffic, density of passive users increases, the sight of users in the south ends on the river-valley and it is directed to the Alborz mountains on the north side (image 4), although the *Imamzadeh* is the sigh as the most significant symbol (image 5). It is worthy to mention that the density of passive people increases through the course of religious ceremonies and specific dates. In area 3, the square becomes dedicated to the cars with the limited sensory access to the water but the people are still passive and immovable and their views might is directed to the *Imamzadeh Saleh* and the mountains on the north side.

On the north side of the square, the whole river-valley bed is shorter while most of the pathways end up in Tandis center. Based on the outcomes of the questionnaire, most of the users of this place include only the residents while on the different areas the majority of the non-resident social groups are situated. The advantage of sensory access to the natural elements like the mountain, vegetative fields, and the river-valley can approve the conclusive results from the questionnaires, in other words, the subjective-comparative landscape of the area is produced by adopting their subjective experience memories in a naturalist field. The most intimate sensory communication exists with the Alborz Mountains, satisfying weather, the water flow of the river-valley and the existing trees with their inefficient patterns of planting and the greens in the space (Figure. 3). It is worthy to mention that the *Imamzadeh Saleh* shrine itself has a spiritual communication which has increased the readability of the environment through semiotic functions (the most important sign from the viewpoint of 94%% of the questionnaires) beyond the sensory communication functions. The physical communication with the water in the sides of river-valley has become impossible because of the existence of tall cement walls.
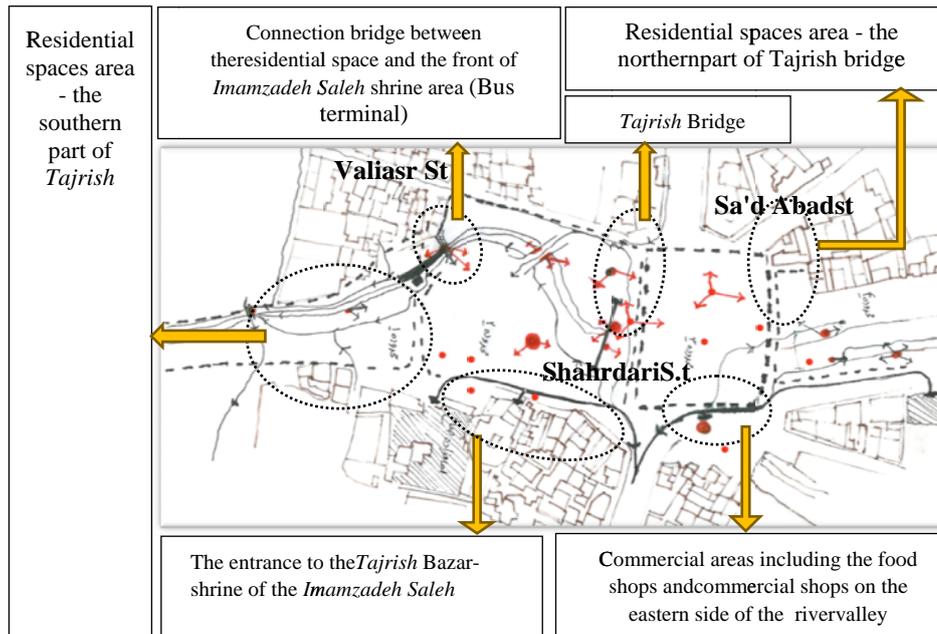
Fig. 1. Analyzing the behavioral map of the space users.

Fig. 2. Routes with less quartering and those without passersby

Fig. 3. Elements of the site Landscape

Fig. 4. Holding the religious ceremonies in the Bus terminal. Reference: author.

Fig. 5. Shrine of *Imamzadeh Saleh* as the most important sign.

According to the theoretical research concepts and the data analysis, the impactful factors in order to revive the hidden landscape of *Tajrish* river-valley are presented as an important part of the lost urban areas in the Table. 2.

7. Feasibility

The proposed plans are discussed in detail in the research paper of the author, on the majority of the proposed local-subjective plans in the case study, a great attention was paid to solve the traffic crisis in the region and the ecological or cultural issues or those which are related to the *Imamzadeh* are considered as with the second grade of importance; the landscape of *Tajrish* river-valley is essentially forgotten. The things that that unimportant in

these plans is the type of the individual's view of space, their behavior and subjective images. Reviving the substrate of *Tajrish* river-valley is done based on two major factors: 1. Nonskeletal ability: based on the subjective image that is shaped on the social groups in *Tajrish* which depends on the nature to a high extent and is based on the two fundamental context of the city substrate including the perception of nature and social potentials which is also influenced by the perception of nature and 2, skeletal power of the area including the physical power, skeletal development of the flood, revival of the river-valley margin which is thoroughly included in the article and is summarized in the Table 3.

Table 2

Impacting factors on the recognition of space in *Tajrish* river-valley - Reference: Author

Studied Factors		Spatial recognition		Descriptions
Subjective image	**Readability**	Turning points, trees in Valiasr st., and Alborz mountains	24%	• The subjective image from the past in *Tajrish* in the mind is somehow readability but there are problems on the readability while adopting the past with the present condition since the individual is unable to align his or her past data in the mind, which causes confusion.
		Imamzadeh Saleh, religious turning point.	44%	
		Knot: *Tajrish* Square	28%	
		Border: Margin of the *Tajrish* river-valley as the natural urban border.	10%	
		Pathway: Valiasr st., *Darakeh* and *Darband* roads.	24%	
	Memory	Reminder of the past	78%	• The main reason of nostalgic sense of *Tajrish* river is due memories and stories that are narrated by the grand/ sen it's bad image regardless of invisible presence.
		Observing special events (Norooz, Ashura, Ta'soua)	56%	• The individual would associate his heritage in his mind and is searching for a place to associates it with those ideas.
		Tajrish Bridge	52%	
		Historical buildings	44%	• *Tajrish* square is full of signs and symbols in the view of the visitors, and it has a rate of 84% of nostalgia to the visitors.
		Space Liveliness	74%	
		Spatial diversity and recreation	84%	• The respondents was able to chose more than one choice.
		Activities due to the diversity in the social activities	64%	
		Stories from the grandparents	70%	• It's low sense of memory in the space due to the disturbances of some of mixed uses and the reason of relocation in the space is due to the collective spaces with regard to its low skeletal quality on one hand and attachment to the space on the other hand.
		River	56%	
		Movement of memory expansion in the space	48%	
		Alborz mountains and nice trees (nature)	74%	
	Implications	*Tajrish* as the history, age and originality.	30%	• A great extend of perceptions and the individuals' feelings are according to the memories and identifications further than skeletal, variable elements in the space. Respondents of the questionnaires were asked to find their subjective images of *Tajrish* with words. Identification with other spaces by adopting them in their impression of the space made them describe *Tajrish* as beautiful and fair.
		Tajrish as the nature	26%	
		Tajrish as Pilgrimage	14%	
		Tajrish as beauty	30%	
		Tajrish as liveliness and excitement	24%	• A large extend of the association with the history in *Tajrish* is related to the human activities and their places in the past which some of those spaces are continuing their lives in the recreational places in the surrounding area.
		Surrounding recreational spaces (*Darband*, *Darakeh*)	24%	

Studied Factors					Descriptions
Activities and events	**Type of use**	**Resident's use**	**Nonresidents use**	**Total**	• More than 74% of the visitors has nightlife recreations.
	Religious	26%	34%	60%	• More than one use for the land was possible.
	Commercial and shopping	26%	40%	66%	• According to the statistics, the most important reason for the presence and the type of use from the space in the *Tajrish* square is shopping and pilgrimage.
	Recreational	20%	38%	58%	

Studied Factors			Descriptions
Location Structure	Urban landscape	Natural Landscape Artificial landscape: in the margins of river-valleys, the majority of the constructions include worn textures.	The margins of river-valley used to be having local uses and 72% of the local residents does not have a sense of security in these pedestrian pathways, and due to the absence of furniture, proper lighting in the night is inaccessible overnights.
	Designing the space and the pedestrian movement in the space.	Lack of attention to the borders of the river-valleys and the interrupts and cuts in the pedestrian pathways.	The margins of river-valley used to be having local uses and 72% of the local residents does not have a sense of security in these pedestrian pathways, and due to the absence of furniture, proper lighting in the night is inaccessible overnights.

Table. 3

Studying the feasibility of reviving the *Tajrish* river-valley substrate - Source: Author.

Facilities	Limitations, Weaknesses	Demands	Solutions
Skeletal: ● Diversity in the slope of the hills in the case study area ● Physical potential of the case study area for development of collective space ● Potential of mixing the mountain and river landscapes on the northern vistas **Visual:** ● Potential of describing a visual gate	● Constructions on the northern area of the square and the limited sensory-visual access to the northern mountains as a part of the background nature in the case study ● Breach to the border of river ● Existence of insecure spaces in some of the river sides and under the bridge ● Lack of solutions to control the floods	● Development of proper recreation spaces aligned with the demands of social groups ● Conversion of insecure spaces of the river borders to the secure areas ● Redesigning the nostalgic and historical skeletal factors ● Attention to the proper pedestrian pathways in the border of the river-valley	● Taking advantage of indicative natural elements like the vegetative field ● Maximum use of the existing topography ● Respecting the river area and elimination of abandoned buildings, buildings with a lack of stability in the area of the river and to convert their spaces into secure and safe social spaces ● Developing facilities in order to reduce the harm from the floods ● Using proper urban furniture ● Reducing the infiltrability of the river-valley substrates
Subjective: ● Nostalgia ● Making identity-oriented places ● Diversity in the social groups of space users ● Liveliness of the space ● Peacefulness of the nature as the shared factor in the subjective image of different social groups from different ages	Existence of a number of places for reviving some of the collective memories: ● Presence of gaps between the subjective image and the existing skeletal situation ● Disregarding the users' subjective images on designing proposed plans.	Objectifying the subjective image of users in the space: ● Organizing the space and activities in order to improve some of the enforcing activities for the subjective image of *Tajrish* including the consideration of a specific spot for busking musicians ● Redesigning spaces and lost places which are sustainable in the subjective image of the users.	Designing places and spaces according to the subjective factors of the users: ● Attention to the design of the spaces under the bridge and eliminating insecure spaces ● Attention to the type of natural elements which are used in the space design and to develop continuous pedestrian pathways ● Changing the use of some spaces like the bus terminal into collective spaces.
Upper hand plans: ● Anticipating the subway exits in the both north and south side of the square as both a sign and to show the way of reviving the hidden landscape of the river in the both sides of the square ● Converting *Tajrish* square into *Tajrish* urban yard.	Focus on the transport and disregarding the other demands of the substrate: ● Disregarding to the social potentials of the substrate as the main factor.	Facing the natural elements in order to communicate with them: ● Prioritizing the pedestrian pathway.	Digesting the uses like the subway exit in the topography: ● Physical access to the natural and collective spaces ● Guiding the spaces users into natural substrates.

8.Conclusions

If the landscape architecture is sustainable and persistent, it will create a persistent subjective memory, and the subjective memory of a landscape would develop a subjective image. According to the landscape studies in the subjective terms of it, the research area is a sustainable landscape and the substrate of *Tajrish* river-valley is essentially considered as a part of this landscape, thus, if the skeletal environment brings the possibility of recognition for the nature it will increase the levels of sociability in the activity spaces and the desire to the collective activities which are influenced by the possibility

for perception of the nature. Perception of nature has a great impact on the type and scale of the collective activities which are the characteristics of the sociability. The point that develops the historical sociability in the research area is the transfer of the subjective image from the older generations to the current generation through memories further than the collective nature of it, liveliness and attractiveness of the space, recreation, and pilgrimage which get a major influence from the natural elements of the mentioned area. These transferred subjective images would be adopted with experiences in the similar spaces and develops a type of comparative subjective image

according to the comparative-interactive perception of nature in the space. Along with the sense of sympathy with the river-valley of *Tajrish*, the most importance unsociability of it are listed as the lack of physical-mental security, skeletal security, contamination (lack of visual beauty and attractiveness). The sense of belonging to space, conjunction spots of the skeletal factors, activities and subjective concepts are in relation to space, this sense of belonging converts space into a place with special sensory and behavioral specifications in the mind of people. On the other hand, on recognition of the urban space contents of *Tajrish*, we figured out that the environmental contents of the case study possesses some collective behavioural patterns which have kept its overall identity although it was subjected to several changes in the course of history and it has become as the innate characteristic of the space, the proximity between the subjective images of the users also points out to the collective perception of the space and the reinforcement of this part of the space contents. Substrates of urban river-valleys, including *Tajrish* with its different signifying, functional and skeletal dimensions can have a bold role in improving the quality of their surrounding spaces. On answering the proposed questions of the research we should point that "the comparative-interactive perception of *Tajrish*" has a much powerful character which can absorb the audiences but due to the lack or the improper conditions of skeletal factors, the interactions with the natural substrates are replaced with the Bazaar, malls, and restaurants. Although these centers exist as semiotic elements in the mind of citizens they are not their primary background of their image. Also, according to the data analysis of the research, the quality of skeletal space of the research area is lower of its quality in the subjective image of the users, so the subjective landscape of the users can have a more influence on the redesign and organizing it. As a result, collective spaces are the crystallization of spatial-skeletal collective memories, and they are considered as familiar spaces that link the generations from the past with the current generation which forms the behavioral specifications and norms of residents or nonresident citizens. Thereupon, organizing the collective spaces is an essential topic, and its requisite is to return to its past and history to adapt them to the nowaday needs of its audience. According to the important social functions of nature, the existing natural substrate of this river-valley in the space is an important factor in the development of inter-city green infrastructures on the way to visualize the "comparative-interactive image" for the users with its unique potentials.
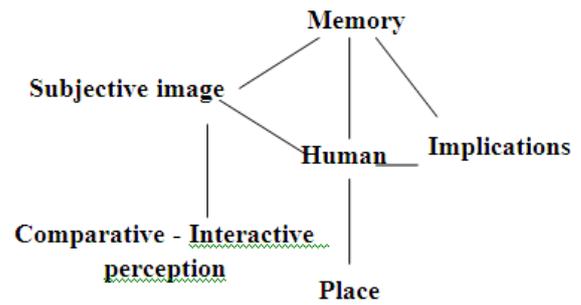

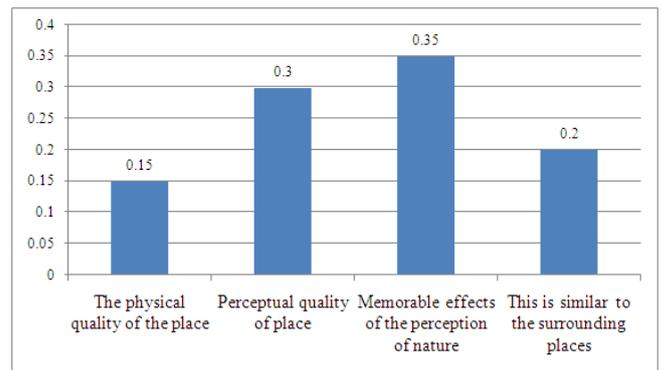Fig. 6. The process of comparative in Place

Fig. 7. Impacting factors on the sociability of the case study area.(Source: authors)

FootNotes
[1] Green infrastructures are collections of green spaces and irrigation systems which deliver numerous environmental, economical and social services to the human societies (Martin Ely, 2012)
[2] In this article, when we refer to sociability we mean to point out to the revival and formation of social interactions in the skeletal substrate of *Tajrish* river-valley.

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